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TABLE OF CONTENTS

PART I

ADAMKO PETER

ANALYSIS OF THE MODIFICATIONS OF THE GLOBAL ALTMAN'S MODEL 2014...1

ADAMOVA MARKETA, KRNINSKA RUZENA

THE INFLUENCE CORPORATE CULTURE OF KNOWLEDGE ECONOMY ON
FINANCIAL PERFORMANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES.....7

ACHIMSKA VERONIKA

INTERNATIONAL COMPARISON OF THE LIBERALIZATION OF THE POSTAL
SECTOR.....15

ALPATOV GENNADY E., BORTNIKOVA HELENA G.

GLOBALIZATION AND THE UNIFICATION OF TERTIARY EDUCATION.....25

ALTUNYAN ARMEN, KOTCOFANA TATIANA

GLOBAL POLITICAL AND ECONOMICAL PROCESSES, MONETARY POLICY OF
THE BANK OF RUSSIA AND DEVELOPMENT OF THE RUSSIAN ECONOMY.....33

ANTALOVA MARIA

IMPACT OF GLOBALIZATION ON THE QUALITY OF LIFE IN THE SR.....41

ANTONYAN OLGA, KARPUSHKO ELENA, SOLOVYEVA ANNA

THE VALUE ENGINEERING DEVELOPMENT IN THE MARKET INFRASTRUCTURE
OF CIVIL CONSTRUCTION IN THE CONTEXT OF GLOBALIZATION IN RUSSIAN
FEDERATION.....50

ASHMARINA SVETLANA IGOREVNA, ZOTOVA ANNA SERGEEVNA, MANTULENKO VALENTINA VJACHESLAVOVNA

NEW VALUES FORMING AMONG RUSSIAN ENTREPRENEURSHIP UNDER THE
INFLUENCE OF GLOBALIZATION.....58

BAJZIK PETER

CURRENT PROBLEMS OF THE EU LABOUR MARKET (THE CASE OF
SLOVAKIA).....65

BAJZIKOVA LUBICA

EMPLOYMENT SUPPORT IN SLOVAKIA.....74

BAKYTOVA JANA

ANALYSIS OF ECONOMIC POLICY OF DOOR OPENING OF THE UNITED STATES
INTO LATIN AMERICAN COUNTRIES.....81

BALANOVSKAYA ANNA VYACHESLAVOVNA, VOLKODAYEVA ARINA VALERYEVNA, NIKITINA NATALYA VLADISLAVOVNA

PROBLEMS AND PROSPECTS OF ENSURING INFORMATION SECURITY IN THE
CONDITIONS OF GLOBALIZATION.....90

BALCERZAK ADAM P., PIETRZAK MICHAL BERNARD

DYNAMIC PANEL ANALYSIS OF INFLUENCE OF QUALITY OF HUMAN CAPITAL
ON TOTAL FACTOR PRODUCTIVITY IN OLD EUROPEAN UNION COUNTRIES....96

BARESOVA PETRA, STANKOVA PAVLA GLOBAL CHALLENGE: POPULATION AGING AND THEIR LEISURE TIME.....	104
BARTKOVA HANA, STEFANOVOVA ZUZANA METHODOLOGY DRAFT OF CAPITALIZATION RATES FOR COMMERCIAL REAL ESTATE VALUATION OF BUSINESSES.....	111
BASINKSA BEATA ALEKSANDRA, ROZKWITALSKA MALGORZATA PSYCHOLOGICAL CAPITAL AND CHALLENGE APPRAISAL FOSTER THRIVING IN THE GLOBALIZED MULTICULTURAL WORKPLACE.....	119
BAULINA OKSANA ALEKSANDROVNA, KLYUSHIN VLADISLAV VLADIMIROVICH, SHCHUKIN ALEXANDER EGOROVICH METHODOLOGICAL APPROACHES TO CLUSTERS IDENTIFICATION IN THE CONDITIONS OF ECONOMY GLOBALIZATION.....	127
BEDIOVA MONIKA, RASTICOVA MARTINA, KUCIAN MICHAL HOW SELECTED GENERATIONS CONSIDER IMMIGRANTS' NEEDS IN TIMES OF GLOBALIZATION: THE RESEARCH RESULTS.....	135
BELYAEV MIKHAIL, SOKOLOVA SVETLANA, FURSOVA ALBINA THE DEVELOPMENT OF INTERREGIONAL RELATIONS IN THE CONTEXT OF GLOBALIZATION.....	143
BENCIKOVA DANA, POLIAK PETER INTERCULTURAL COMPETENCES IN INTERNATIONAL ORGANIZATIONS.....	151
BENO MICHAL THE ROLE OF WORLD TRADE ORGANIZATION IN THE GLOBALIZATION PROCESS.....	159
BERZAKOVA VIERA, BARTOSOVA VIERA BUSINESS SHARE VALUE IN GLOBAL ENVIRONMENT.....	168
BEZAKOVA ZUZANA IMPACT OF THE GLOBALIZATION ON THE PROCESS OF CREATING MARKETING COMMUNICATION AND ITS IMPORTANCE IN THE CREATION OF INNOVATION.....	175
BIELIKOVA ALZBETA, PALIDEROVA MARTINA RECEIVABLES MANAGEMENT IN THE GLOBAL ECONOMY.....	183
BIKAR MILOS, VAVROVA KATARINA GLOBAL MOVEMENTS OF MAJOR WORLD INDICES: THE PERFORMANCE COMPARISON.....	191
BLAZEKOVA OLGA, VOJTEKOVA MARIA RATINGS-BASED APPROACH TO CALCULATION OF CREDIT RISK MARGIN UNDER CONDITIONS OF GLOBALIZATION.....	199
BLISAK LUBOSLAV, SALGOVICOVA JARMILA PROCESS APPROACH IN MARKETING COMMUNICATION STRATEGY WITH REGARD TO GLOBAL SOCIAL RESPONSIBILITY.....	207

BOBAKOVA HANNE-LORE, CHYLKOVA MARTINA AN OVERVIEW OF MIGRATION IN THE CZECH REPUBLIC AND GERMANY UNTIL 2015.....	215
BOBOKHONOV ABDULMAJID, POKRIVCAK JAN, RAJCANIOVA MIROSLAVA GLOBALIZATION AND PRICE TRANSMISSION IN TAJIKISTAN AND UZBEKISTAN.....	223
BOHM PATRIK, BOHMOVA GABRIELA APPLICATION OF STRATIFICATION DEA METHOD IN EFFICIENCY EVALUATION OF THE EDUCATION SECTOR IN AN INTERNATIONAL PERSPECTIVE.....	230
BORISOVA NATALIA, BORISOV ALEXANDER, FEDONUK NATALIA GLOBAL AND REGIONAL ASPECTS OF ECOLOGICAL CONSTRUCTION DEVELOPMENT IN THE CURRENT ECONOMIC CONDITIONS.....	238
BOTLIK JOSEF, BOTLIKOVA MILENA THE DEVELOPMENT OF TOURISM CONSUMPTION IN CATERING.....	247
BOYKO TATYANA, FROLOVA NATALYA THE QUESTION OF THE CORE COMPETENCIES OF SMALL INNOVATIVE COMPANIES OF GLOBAL SIGNIFICANCE IN THE INNOVATION MESOECOMICS.....	255
BRECKA STANISLAV, KORAUŠ ANTON INNOVATION AND INNOVATION MANAGEMENT IN THE TOURISM INDUSTRY IN THE CONTEXT OF GLOBALIZATION.....	261
BUCHTOVA BOZENA UNEMPLOYMENT - A PHENOMENON OF GLOBALIZATION?.....	270
BUTEK MICHAL LIMITS OF USE OF BITCOIN AS A GLOBAL MEANS OF EXCHANGE.....	279
BUTKUS MINDAUGAS, MACIULYTE-SNIUKIENE ALMA, MATUZEVICIUTE KRISTINA SOCIO-DEMOGRAPHIC FACTORS INFLUENCING ATTITUDE TOWARDS REFUGEES: AN ANALYSIS OF DATA FROM EUROPEAN SOCIAL SURVEY.....	286
CAPKOVICOVA BRONISLAVA, BEDNARIK JAROSLAV THE SIGNIFICANCE AND IMPORTANCE OF CRISIS COMMUNICATION IN THE CONDITIONS OF GLOBAL CRISIS.....	295
CENIGA PAVEL, SUKALOVA VIERA CORPORATE SOCIAL RESPONSIBILITY IN A SUPPLY CHAIN CONTEXT IN THE PROCESS OF GLOBALIZATION.....	303
CISZEWSKI TOMASZ, NOWAKOWSKI WALDEMAR INTEROPERABILITY OF IT SYSTEMS IN THE INTERNATIONAL RAILWAYS.....	312
COPIKOVA ANDREA, HORVATHOVA PETRA CREATING OF A COMPETENCY MODEL FOR A FINANCIAL MANAGER POSITION IN A PRODUCTION COMPANY.....	321

COREJOVA TATIANA, AL KASSIRI MARIO KNOWLEDGE TRIANGLE, INNOVATION PERFORMANCE AND GLOBAL VALUE CHAIN.....	329
CUHLOVA RENATA, KOTIKOVA SYLVIE FOREIGN PRESENCE, CULTURAL DISTANCE AND TECHNOLOGY GAP AS INDICATORS OF GLOBALIZATION IN THE CZECH REGION.....	337
CZECH KATARZYNA EUROPE 2020 TARGETS AS LIFE QUALITY MEASURES IN A GLOBAL ECONOMY – AN ATTEMPT OF EVALUATION BASED ON THE EXAMPLE OF POLAND.....	345
DAVIDEKOVA MONIKA, GREGUS MICHAL ML. THE IMPACT OF GLOBALIZATION ON TEAM COMPOSITION: VIRTUAL AND LOCAL TEAM.....	354
DENGOV VICTOR V., GREGOVA ELENA, MAKSIMOV ANDREY V. GLOBALIZATION IN THE FIELD OF FOOD RETAIL ST.PETERSBURG: ANALYSIS OF THE PRICE POLICY.....	362
DOKOUPIL JAROSLAV, PREIS JIRI BREXIT AND MIGRATION WAVE FROM THE MIDDLE EAST: POSSIBLE IMPACTS ON FUTURE DEVELOPMENT OF THE SCHENGEN AREA.....	375
DOLINAYOVA ANNA, CAMAJ JURAJ, DANIS JOZEF EVALUATION OF INVESTMENT EFFICIENCY IN THE NEW DATABASE SOLUTION FOR RAIL FREIGHT TRANSPORT IN THE CONTEXT OF GLOBALIZATION.....	383
DURANA PAVOL, CHLEBIKOVA DARINA THE INFLUENCE OF GLOBALIZATION FOR HUMAN RESOURCES EDUCATION.....	391
DURICA MAREK COUNTERFACTUAL METHODS USED FOR EVALUATION OF ACTIVE LABOR MARKET POLICIES IN EUROPEAN UNION.....	399
DVORAKOVA LILIA, MACKOVA MARIE SPECIFICS OF THE ECONOMIC MANAGEMENT PROCESS IN NON-GOVERNMENTAL NON-PROFIT ORGANIZATIONS IN THE CONDITIONS OF GLOBALIZED ECONOMY.....	408
DVORAKOVA LISKOVA ZUZANA, DVORAK PETR, KLUFOVA RENATA, SKODOVA PARMOVA DAGMAR THE IMPACT OF ECONOMIC GLOBALIZATION ON EMPLOYMENT STRUCTURE IN THE CZECH AND SLOVAK REPUBLIC, 1993 - 2015.....	417
DZIUBA SZYMON T., INGALDI MANUELA, KADLUBEK MARTA USE OF QUALITY MANAGEMENT TOOLS FOR EVALUATION OF THE PRODUCTS' QUALITY IN GLOBAL ECONOMY.....	425
ERMOLAEV KONSTANTIN NIKOLAEVICH, SALOMATINA SVETLANA YURYEVNA SYNERGETIC APPROACH TO THE DEVELOPMENT OF INTERNATIONAL INSTITUTIONS REGULATING IN THE CONDITIONS OF GLOBALIZATION.....	433

ERSHOVA IRINA, DEVIATILOVA ALEKSANDRA, EMELYANOV SERGEY INTERNATIONAL PUBLIC MANAGEMENT OF SOCIAL AND ECONOMIC SYSTEMS.....	442
ERSHOVA IRINA, SEVRYUKOVA LARISA GLOBAL DEVELOPMENT OF INFORMATION SUPPORT OF BUSINESS ORGANIZATIONS IN THE REGION.....	449
FRONCZEK MALGORZATA POSITION OF EU-15 IN WORLD EXPORT IN COMPARISON TO SELECTED COUNTRIES IN A VIEW OF MEASURING TRADE IN VALUE ADDED.....	458
GARDINER RICHARD, HAJEK PETR THE CAUSAL RELATIONSHIP AMONG SUSTAINABLE DEVELOPMENT INDICATORS AND ECONOMIC GROWTH – THE CASE OF EU28 COUNTRIES.....	468
GERASIMENKO VALENTINA V., MOLCHANOVA OLGA P. NEW STRATEGIES OF RUSSIAN BUSINESS SCHOOLS IN THE CONTEXT OF GLOBAL EDUCATIONAL MARKETS.....	475
GOGOLOVA MARTINA IMPACT OF THE GLOBALIZATION ON THE YOUNG PEOPLE’S LEVEL OF EDUCATION.....	483
GONDZAROVA BARBORA, PONISCIAKOVA OLGA THE PROCESS OF LOCATION OF THE ENTERPRISE IN THE GLOBALIZATION.....	490
GORBUNOVA MARIIA L., PRIKAZCHIKOVA JULIA INTERNATIONALIZATION OF RUSSIAN INNOVATIVE COMPANIES: STRATEGIES AND CHALLENGES.....	497
 PART II	
GREGOVA ELENA, DENGOV VICTOR V. STARTUPS IMPORTANCE FOR THE SUCCESSFUL DEVELOPMENT OF THE SLOVAK ECONOMY.....	505
GREGUS MICHAL, DAVIDEKOVA SONA EUROPEAN INTEGRATION AND BREXIT: WHAT IS THE ATTITUDE OF YOUNG GENERATION TOWARDS EUROPEAN UNION IN SLOVAKIA?.....	515
GRECHENYUK OLGA, GRECHENYUK ANTON, POLYANIN ANDREY RESEARCH OF GLOBAL SERVICIZATION PROCESSES AND THEIR ROLE IN THE RUSSIAN ECONOMY.....	523
GRESKOVA PETRA, KUSA ALENA VALUE ORIENTATION IN RELATION TO CONSUMER SUBSEGMENTS OF GENERATION 50 + IN GLOBAL ENVIRONMENT.....	532
GRMELOVA NICOLE THE IMPACT OF BREXIT ON THE FUTURE FATE OF THE COMPREHENSIVE ECONOMIC AND TRADE AGREEMENT (CETA) AND THE TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP (TTIP).....	540

GROFCIKOVA JANKA

GLOBALIZATION AND ITS IMPACT ON THE CORPORATE FINANCIAL MANAGEMENT AND CONTROL.....547

GRUDINA S.I., AVDONINA S.G., PODGORNAYA A.I.

MODERN GLOBAL TRENDS IN ENTERPRISE REENGINEERING MANAGEMENT..556

GRUPAC MARIAN

NEGATION PHENOMENA OF CULTURAL AND SOCIAL PROCESSES OF GLOBALIZATION IN THE MODERN DAY IN EUROPEAN EMPLACEMENT: DISTRIBUTION OF CZECH-SLOVAKIA IN THE CONTEXT OF NATIONAL LITERATURE AND LANGUAGE.....563

GUBOVA KLAUDIA, RICHNAK PATRIK

DEVELOPMENT AND USE OF INTANGIBLE ASSETS IN THE CONDITIONS OF GLOBALIZATION.....572

GUMENI ANITA, SHALARI ORNELA, KOTE DHONAT

THINK GLOBAL ACT LOCAL PURCHASING BEHAVIOR TOWARDS GREEN PRODUCTS IN ALBANIA.....580

HADAS-DYDUCH MONIKA

GLOBALIZATION IN THE CONTEXT OF COINTEGRATION SELECTED COUNTRIES.....587

HADAS-DYDUCH MONIKA, BALCERZAK ADAM P., PIETRZAK MICHAL BERNARD

WAVELET ANALYSIS OF UNEMPLOYMENT RATE IN VISEGRAD COUNTRIES...595

HAKALOVA JANA, PALOCHOVA MARCELA, TUSAN RADOSLAV

PROBLEMS WITH THE BREACH OF THE OBLIGATION TO PUBLISH FINANCIAL STATEMENTS AND ANNUAL REPORTS OF BUSINESS ENTITIES IN THE CZECH AND SLOVAK REPUBLIC IN THE CONTEXT OF GLOBAL REQUIREMENTS FOR REPORTING AND DISCLOSING INFORMATION.....603

HARUMOVA ANNA

THE DEVELOPMENT OF UNEMPLOYMENT IN SLOVAKIA IN THE CONDITIONS OF GLOBALIZATION.....611

HASKOVA SIMONA

MACROECONOMIC ANALYSIS OF SELECTED ASPECTS OF EUROPEAN MONETARY INTEGRATION.....620

HEJDUKOVA PAVLINA, KUREKOVA LUCIE

THE GLOBALIZED WORLD AND MIGRANTS: IMPACTS ON HEALTHCARE MARKETS.....628

HES ALES, HESOVA IVANA

ASPECTS OF GLOBAL COMMUNICATION IN POST MODERN SOCIETY.....636

HIADLOVSKY VLADIMIR, DANKOVA ANDREA, GUNDOVA PETRA, VINCZEOVA MIROSLAVA

UNIVERSITY AS INNOVATIVE ORGANIZATION IN THE ERA OF GLOBALIZATION.....646

HODROB RAMI, AWAD SAMI ECONOMETRIC ANALYSIS OF THE IMPACT OF ICT ON ECONOMIC GROWTH FOR QATAR IN GLOBALIZATION CONTEXT.....	654
HOLICZA PETER CONVERGENCE OF IDEAS?: ANALYSING FUKUYAMA'S AND HUNTINGTON'S CONCEPTS OF THE FUTURE.....	663
HOLUBCIK MARTIN, FALAT LUKAS POSSIBLE IMPLEMENTATIONS OF PREDICTION MODELS FOR FORMING GLOBAL COOPERATION RELATIONS.....	670
HRASKOVA DAGMAR, SEEMANN PETER INNOVATIVE FORMS OF ONLINE LEARNING WITHIN THE EDUCATION FIELD.....	678
HREHOVA DANIELA, JENCOVA ANNA ASPIRATIONS OF UNDERGRADUATES IN WORKING LIFE AND INTENTION TO DO BUSINESS.....	686
HUDAKOVA MARIA, LUSKOVA MARIA GLOBAL ENVIRONMENT IMPACTS ON ENTERPRISE RISK MANAGEMENT.....	694
HUNADY JAN, ORVISKA MARTA, PISAR PETER INTERNATIONAL MOBILITY OF STUDENTS AND ITS POTENTIAL EFFECT ON THE EMPLOYMENT OF UNIVERSITY GRADUATES.....	702
CHICO JOSE RUIZ, SANCHEZ ANTONIO RAFAEL PENA, GARCIA MERCEDES JIMENEZ FOOD EXPORTS ELASTICITIES IN COUNTRIES OF THE E.U.: A COMPETITIVENESS APPROACH IN TIMES OF GLOBALIZATION.....	711
CHLEBIKOVA DARINA SLOVAK CLUSTERS IN THE GLOBAL MARKET.....	719
ILAVSKA IVETA MODIFICATION OF MUNDELL-FLEMING EXCHANGE RATE MODEL AND VALIDATING ITS STABILITY IN THE INTERNATIONAL TRADE AND FINANCE.....	726
ILYSHEVA NINA, KRYLOV SERGEY INTEGRATED MANAGEMENT ANALYSIS OF INNOVATION PERFORMANCE IN CONDITIONS OF GLOBALIZATION.....	734
IMPPOLA JORMA THE EFFECTS OF GLOBALIZATION TO THE FINNISH ECONOMY AND INDUSTRY 1995-2016.....	741
INGALDI MANUELA, DZIUBA SZYMON T., KADLUBEK MARTA INTEGRATED MANAGEMENT SYSTEMS AS AN ELEMENT OF GLOBALIZATION IN PRODUCTION MANAGEMENT.....	750
JANOSKOVA KATARINA FACILITY MANAGEMENT AS AN IMPORTANT COMPETITIVE ADVANTAGE OF COMPANIES IN INTERNATIONAL ENVIRONMENT.....	759

JANOSOVA DENISA	
HUMAN RESOURCES AND PERSONNEL MARKETING MANAGEMENT IN BUSINESS PRACTICE FROM THE PERSPECTIVE OF GLOBALIZATION.....	767
JAROS JAROSLAV	
POSITION OF SMALL AND MEDIUM SIZED ENTERPRISES IN THE GLOBALIZED SINGLE MARKET OF THE EUROPEAN UNION.....	775
JURISOVA VLADIMIRA	
CSR ACTIVITIES IN ENVIRONMENTAL AREA – GLOBAL TRENDS AND BEST PRACTICES.....	785
JURKOVIC MARTIN, KALINA TOMAS, SOSEDOVA JARMILA, TVRDA EVA	
GLOBALISATION OF THE LNG TRADE IN CASPIAN REGION.....	793
KAJAN MARCEL	
GLOBALISATION OF ENZYME MARKETS AND INFLUENCES ON LOCAL MARKETS.....	800
KAJANOVA JANA	
GLOBALIZATION AND ITS IMPACTS ON CHEMICAL ENTERPRISES PERFORMANCE IN SLOVAKIA.....	808
KAPUSTINA LARISA, DREVALEV ANDREI	
IMPLICATIONS OF THE “ONE BELT, ONE ROAD” INITIATIVE OF CHINA FOR THE WORLD ECONOMIC RELATIONS.....	816
KARPUSHKO MARINA OLEGOVNA, BARTOLOMEI IGOR LEONIDOVICH, KARPUSHKO ELENA NIKOLAEVNA	
WORLD EXPERIENCE OF OPERATIONAL MANAGEMENT IN CONSTRUCTION...	823
KASTAKOVA ELENA, BEBIAKOVA DASA	
ESTIMATED ECONOMIC IMPACT OF THE IMPLEMENTATION OF THE DCFTA ON THE FOREIGN TRADE OF SLOVAKIA REPUBLIC AND UKRAINE.....	831
KAZANSKAYA LILIA FAATOVNA, PALKINA ELENA SERGEYEVNA	
INNOVATIVE IMPERATIVES FOR COMPETITIVENESS OF NATIONAL TRANSPORT SYSTEMS IN CONDITIONS OF GLOBALIZATION.....	839
KELCHEVSKAYA NATALYA, CHERNENKO ILIA, KOLYASNIKOV MAXIM	
ORGANIZATIONAL CULTURE AND KNOWLEDGE MANAGEMENT WITHIN RUSSIAN MANUFACTURING COMPANIES ENTERING GLOBAL MARKETS.....	847
KHMELEVA GALINA ANATOLIEVNA, EGOROVA KRISTINA SERGEEVNA	
STRUCTURAL SHIFT IN A CITY LABOR MARKET: GLOBALIZATION AND LOCAL EFFECTS.....	855
KICOVA EVA	
TRENDS IN FACILITY MANAGEMENT IN THE GLOBALIZATION PROCESS.....	864
KIRILLOVSKAYA ALLA A., PASHKUS VADIM Y., VOLKOVA ANNA V.	
THE NEWEST ECONOMIC POLICY, GOVERNMENT REGULATION OF THE ECONOMY AND ECONOMIC SECURITY.....	870

KISELEV KONSTANTIN, KISELEVA TATYANA, TEREPTYEV VLADIMIR GLOBAL AND LOCAL BRANDS CUSTOMER VALUE PERCEPTION AT RUSSIAN BEER MARKET.....	876
KISELEV DMITRY, POPOV YURI, KANYGINA OLGA DEVELOPMENT OF CORPORATE STANDARDS PLANNING IN CONDITIONS OF GLOBALIZATION.....	884
KISELEV VLADIMIR, SAVINKOV SERGY, TEREPTYEV VLADIMIR SCIENTOMETRIC EVALUATION OF VISUAL SOLUTIONS FOR BRANDING.....	892
KISELKINA O.V., PRATCHENKO O.V., YURKOV D.V., MALAEV V.V. MEASUREMENT OF LABOR PRODUCTIVITY IN ECONOMIC SYSTEMS IN THE CONTEXT OF GLOBAL CHALLENGES.....	898
KLEMENTOVA JARMILA, SEDLIACIKOVA MARIANNA, MORESOVA MARIA CUSTOM MANUFACTURING OF FURNITURE IN CONTEXT OF GLOBALIZATION AND QUALITY MANAGEMENT.....	905
KLIESTIKOVA JANA, MISANKOVA MARIA EUROPEAN INSOLVENCY LAW HARMONISATION IN TERMS OF GLOBAL CHALLENGES.....	914
KOLESNIKOVA JULIA SERGEEVNA, VALEEV EMIL RAMILEVICH, YAKUNINA REGINA PETROVNA THE REALIZATION OF INTANGIBLE PROPERTY AT THE INDIVIDUAL'S LEVEL.....	922
KOLLAROVA DANIELA SLOVAK RETAIL IN ERA OF GLOBALIZATION.....	930
KONOVALOVA MARIA EVGENIEVNA, KUZMINA OLGA YURIEVNA, NEDOREZOVA ELENA SERGEEVNA SECURITIZATION OF MORTGAGE ASSETS AS A TOOL OF THE DEVELOPMENT OF THE GLOBAL CAPITAL MARKETS.....	938
KORCZAK ARKADIUSZ, OLCZYKOWSKI ZBIGNIEW, WOJCIECHOWSKI JERZY THE SMART GRID TECHNOLOGY IN POLAND AS A PART OF GLOBAL ELECTRIC POWER SYSTEM.....	945
KORMANOVA LUCIA CONTROLLING OF CLAIMS AS A TOOL FOR REDUCING INSOLVENCY IN AN INTERNATIONAL ENVIRONMENT.....	953
KORNASZEWSKI MIECZYSLAW, BOJARCZAK PIOTR, PNIEWSKI ROMAN INTRODUCTION OF WORLD INNOVATIVE TECHNOLOGIES TO RAILWAY TRANSPORT IN POLAND.....	962
KOROSTYSHEVSKAYA ELENA M., URAZGALIEV VLADIMIR SH. RUSSIA IN EUROPEAN INNOVATION SPACE IN THE CONTEXT OF GLOBALIZATION.....	970
KOS BARBORA THE INFLUENCE OF MODERN SOLUTIONS ON THE COMPANY'S IMAGE IN THE PROCESS OF GLOBALIZATION.....	980

KOS-LABEDOWICZ JOANNA

THE EUROPEAN UNION'S ICT FOCUSED POLICIES AS A MEANS TO ACHIEVE
COMPETITIVENESS IN THE GLOBAL ECONOMY.....988

KOSOVSKA IVETA, VARYOVA IVANA

IMPACT OF GLOBALIZATION TO THE SPECIFICS OF BIOLOGICAL ASSETS
MEASUREMENT IN SR IN THE CONTEXT OF LEGAL ARRANGEMENTS OF SR AND
INTERNATIONAL LEGAL ARRANGEMENTS.....996

PART III

KOSTKOVA MIROSLAVA, PELLESOVA PAVLINA

THE INFLUENCE OF GLOBALIZATION ON THE OFFER OF PASSENGER RAIL
TRANSPORT IN THE CZECH REPUBLIC.....1005

KOTZNKOVA MAGDALENA

INDUSTRY 4.0: EUROPE'S (RE)INDUSTRIALISATION NEEDS A GLOBAL
LEVEL.....1014

KOVACIKOVA MARTINA, REPKOVA STOFKOVA KATARINA

IMPACT OF GLOBALIZATION ON ACCESS TO PROCESS BUSINESSES
MANAGEMENT.....1022

KOZAK VRATISLAV

THE POSITION OF MICROBREWERIES IN THE CULINARY TOURISM IN THE CZECH
REPUBLIC.....1031

KOZEVA MARIA, BELYAEVA TATYANA, ERSHOVA ELIZAVETA

METHODS AND MODELS OF PROJECT MANAGEMENT IN THE WORLD
ECONOMY.....1038

KRAJNAK MICHAL, MEIER VOJTECH

APPLICATION OF A SELECTED METHOD OF MULTI-CRITERIA DECISION WHEN
PREPARING FINANCIAL STATEMENTS ACCORDING TO IFRS AND CZECH
ACCOUNTING STANDARDS.....1046

KRAL PAVOL, BARTOSOVA VIERA

IMPORTANCE OF COMPANY EARLY WARNING SYSTEM IN GLOBALIZING
MARKET ENVIRONMENT.....1054

KRAMAROVA KATARINA

BUSINESS CLUSTERS AND INITIATIVES AS A TOOL OF PROMOTING
COMPETITIVENESS IN A GLOBALIZING ENVIRONMENT.....1061

KRIZ RADKO

NONLINEAR PREDICTION OF THE GDP GROWTH RATE IN THE GLOBALIZED
WORLD.....1069

KRIZOVA ZUZANA

INTANGIBLES IN DIFFERENT REPORTING SYSTEMS ACROSS THE WORLD.....1077

KRYLOV SERGEY, ILYSHEVA NINA STRATEGIC ANALYSIS OF INNOVATIVE PROCESS BASED ON BALANCED SCORECARD IN PRESENT-DAY ECONOMIC ENVIRONMENT.....	1085
KRZYZAK-SZYMANSKA EWA, SZYMANSKI ANDRZEJ, WARZECHA KATARZYNA RISK OF MOBILE PHONE ADDICTION. PRESENTATION OF THE RESULTS OF INTERNATIONAL RESEARCH CONDUCTED AMONG POLISH, LATVIAN AND LITHUANIAN STUDENTS.....	1093
KUBICOVA JANA EXIT TAX IN THE WORLD OF INTERNATIONAL MIGRATION OF COMPANIES AND INDIVIDUALS.....	1101
KUCHYNKOVA LADISLAVA THE INFLUENCE OF GLOBALIZATION ON SMALL AND MEDIUM-SIZED ENTERPRISES.....	1110
KUNDELIENE KRISTINA, STANKEVICIUS EVALDAS ANALYTICAL MODELLING OF GLOBALIZATION IMPACT ON VAT GAP LEVEL VARIATION IN EU COUNTRIES.....	1119
KUNDRIKOVA JANA, SIANTOVA EVA, LATKA MARTIN INNOVATION PROCESS MANAGEMENT WITHIN COOPERATION OF COMPANIES.....	1128
KUREKOVA LUCIE, HEJDUKOVA PAVLINA GLOBALIZATION AND MIGRATION: THE EMPIRICAL STUDY OF PANEL DATA OF THE MIGRATION IN THE CZECH REPUBLIC AND SLOVAK REPUBLIC.....	1136
LANCARIC DRAHOSLAV, HURTER MICHAEL LEADERSHIP MODELS IN GLOBAL ORGANISATIONS: A CASE OF EUROPEAN RETAIL INDUSTRY.....	1145
LASSO DE LA VEGA CARMEN, GLUVACEVIC DEJAN COMPARATIVE ANALYSIS OF THE GLOBAL SPREAD OF TOURISM IN INSTITUTIONAL PORTALS.....	1154
LAZAROIU GEORGE, POPESCU GHEORGHE H., NICA ELVIRA DO MIGRANT REMITTANCES ENHANCE CONSIDERABLY MACROECONOMIC STABILITY IN RECIPIENT ECONOMIES?.....	1163
LESAKOVA DAGMAR IMPACT OF GLOBALIZATION ON BUSINESS PERFORMANCE.....	1171
LESAKOVA LUBICA IMPLEMENTATION OF SMALL BUSINESS ACT INITIATIVE IN SMALL AND MEDIUM ENTERPRISES IN SLOVAKIA.....	1179
LESINSKIS KRISTAPS, MAVLUTOVA INESE THE ROLE OF INNOVATIONS FOR STARTING BUSINESS IN LATVIA.....	1187
LININA IVETA, PRAUDE VALERIJS, ZVIRGZDINA ROSITA MAIN CONSUMER SATISFACTION FORMATION FACTORS AND PROCESS IN RETAIL IN THE SITUATION OF MARKET GLOBALIZATION.....	1195

LIZBETINOVA LENKA, FARKASOVA VIERA LIBRARIANS COMPETENCIES IN THE GLOBAL ENVIRONMENT.....	1204
LUKASIK LESZEK, CISZEWSKI TOMASZ, WOJCIECHOWSKI JERZY POWER SUPPLY SAFETY OF RAILWAY TRAFFIC CONTROL SYSTEMS AS A PART OF INTERNATIONAL TRANSPORT SAFETY	1212
LYAKIN ALEXANDER N., BENSON ISABEL N. DOES GLOBALISATION LEAD TO THE UNIFICATION OF THE INSTITUTIONAL ENVIRONMENT QUALITY?.....	1220
LYAKINA MARIA, VOLKOVA ELENA, TRETYAK VLADIMIR MULTIMODAL PASSENGER TRANSPORTATION AS A GLOBAL TREND OF AGGLOMERATION TRANSPORT SYSTEMS DEVELOPMENT.....	1228
MADLENAK RADOVAN, MADLENAKOVA LUCIA THE GLOBAL IMPACT OF E-MARKETING STRATEGIES ON SME IN THE SEGMENT OF TOURISTIC SERVICES.....	1235
MACHOVA RENATA THE ASSESSMENT OF E-GOVERNMENT READINESS IN THE GLOBALIZATION PROCESS.....	1244
MAJERCAKOVA MARGITA, MADUDOVA EMILIA UNIVERSITY IN A COMPETITIVE GLOBAL MARKETPLACE.....	1252
MAJERNIK MILAN, DANESHJO NAQIB, REPKOVA STOFKOVA KATARINA, SANCIOVA GABRIELA INTEGRATED AUDITING OF ENTERPRISE MANAGEMENT SYSTEMS IN A GLOBALIZED ENVIRONMENT.....	1261
MAKSIMCHUK OLGA, LOMOVITSEV MIKHAIL, PRIDACHUK MAKSIM THE ROLE OF CLUSTERS IN INNOVATIVE DEVELOPMENT OF RUSSIAN REGIONS IN CONDITIONS OF GLOBALIZATION.....	1270
MAKSIMOV ANDREY V., DENGOV VICTOR V., TULYAKOVA IRINA R. GLOBALIZATION IN THE FIELD OF FOOD RETAIL ST.PETERSBURG: CONCENTRATION AND COMPETITION.....	1277
MALIKOVA IVETA, RYBANSKY RUDOLF THE IMPACT OF GLOBALIZATION ON HEALTHY LIFESTYLE OF CONSUMERS.....	1287
MARAKOVA VANDA, KVASNOVA DIANA, WOLAK-TUZIMEK ANNA THE IMPACT OF GLOBALIZATION ON TOURISM DESTINATION MARKETING MANAGEMENT IN SLOVAKIA.....	1296
MARKOVA VIERA, SEDLIACIKOVA MARIANA, HAMARY GUROVA DIANA THE MODEL OF FINANCIAL BUDGETING AND PLANNING FOR MICRO AND SMALL ENTERPRISES.....	1305
MASTALERZ-KODZIS ADRIANNA, POSPIECH EWA SOCIO-ECONOMIC CONSEQUENCES OF GLOBALIZATION - SPATIAL ANALYSIS OF ECONOMIC CHARACTERISTICS IN EUROPEAN UNION COUNTRIES.....	1313

MATUSOVA DOMINIKA SOFTWARE SUPPORT FOR FACILITY MANAGEMENT AND VERSATILITY IN WORLDWIDE ACTION.....	1322
MAZANEC JAROSLAV, BIELIKOVA ALZBETA INFLUENCE OF GLOBALIZATION ON FINANCIAL HEALTH OF BRATISLAVA AIRPORT WITH EMPHASIS ON PREDICTION BANKRUPTCY MODELS.....	1330
MAZNITSA ELENA MIHAILOVNA, FIODOROVYKH EVGENIIA RODIONOVNA AND ARKOV SERGEI VLADIMIROVICH PUBLIC-PRIVATE PARTNERSHIP AS BASIS OF MODERNIZATION OF THE HOUSING SPHERE OF RUSSIA.....	1338
MELECE LIGITA, HAZNERS JURIS THE INFLUENCE OF GLOBALIZATION ON LATVIA'S TRADE OF AGRI-FOOD COMMODITIES: GRAVITY MODEL APPROACH.....	1347
MELNIKOV YURY BORISOVICH, ONOKHINA ELENA ALEXANDROVNA, SHITIKOV SERGEY ALEXANDROVICH THE ALGEBRAIC PRESENTATION OF RESEARCH STRATEGY IN THE ACTIVITY OF TAX AUTHORITIES.....	1355
MICHALKOVA LUCIA TAX SHIELD VALUATION METHODS UNDER THE GLOBAL CONDITIONS.....	1363
MIKELSONE ELINA, LIELA ELITA WEB-BASED IDEA MANAGEMENT SYSTEMS AS A TOOL TO SOLVE GLOBALIZATION CHALLENGES LOCALY.....	1370
MIKHAILOV ALEXANDER MIKHAILOVICH, KHANSEVYAROV RUSTAM IDRISOVICH, YAKOVLEVICH VISHNEVER VADIM ECONOMIC AND INSTITUTIONAL INTERESTS IN THE GLOBAL ECONOMY.....	1378
MIKLENCICOVA RENATA GLOBAL PERCEPTION OF ECO-PRODUCTS AND ECOLOGICAL MARKETING ACTIVITIES BY CONSUMERS.....	1385
MIKUSOVA JANA THE IMPACT OF GLOBALIZATION AND POPULATION AGING ON THE CHANGES OF CZECH EMPLOYMENT POLICY.....	1394
MILOSOVICOVA PETRA, STACHOVA PAULINA DEVELOPMENT OF THE GLOBAL SLOVAK-AUSTRIAN RELATIONS.....	1402
MITKOVA LUDMILA, KOTTULOVA JANKA GLOBALLY VALUED, LOCALLY IRRELEVANT? GENDER EQUALITY IN THE MULTINATIONAL COMPANIES OPERATING IN SLOVAKIA.....	1411
MORAVCIKOVA DOMINIKA IMPACT OF GLOBALIZATION ON MARKETING COMMUNICATIONS AND ITS TRADITIONAL AND PROGRESSIVE TOOLS.....	1419
MORAVCIKOVA KATARINA OUTPLACEMENT USE AS A TOOL OF CORPORATE SOCIAL RESPONSIBILITY AT THE INTERNATIONAL LEVEL.....	1427

MORKOVINA SVETLANA S.

INNOVATIVE MECHANISMS TO IMPROVE BUSINESS CLIMATE IN THE REGIONS OF THE RUSSIAN FEDERATION AS PRECONDITION FOR INTERNATIONAL BUSINESS DEVELOPMENT.....1435

MOTYKOVA JANA, SVADLENKA LIBOR, ZAKOROVA EVA

DEMAND FORECASTING OF POSTAL SERVICES OF ČESKÁ POŠTA, S.P.....1444

MULKY AVINASH G.

INDIA'S QUEST FOR BECOMING GLOBALLY COMPETITIVE: AN AGENDA FOR ACTIONS.....1452

MUSA HUSSAM, STROKOVA ZUZANA, MUSOVA ZDENKA

FINANCING OF SLOVAK SMALL AND MEDIUM SIZED ENTERPRISES IN GLOBALISING ENVIRONMENT.....1458

MUSOVA ZDENKA, MUSA HUSSAM, HULIAKOVA ZUZANA

INNOVATIVE APPROACHES IN A SOCIALLY RESPONSIBLE MARKETING IN A GLOBAL ENVIRONMENT.....1466

NADANYIOVA MARGARETA

GLOBAL TRENDS OF THE PERSONNEL MARKETING IN SERVICE ENTERPRISES.....1474

NASRETDINOV ILDAR

THE INTERNATIONAL PRACTICE OF IMPLEMENTATION OF RISK MANAGEMENT SYSTEM IN RETAIL TRADE NETWORKS.....1482

NEUMANN PAVEL

IS TRADE DECLINE A START OF A NEW GLOBALIZATION TREND?.....1491

NICA ELVIRA, POPESCU GHEORGHE H., LAZAROIU GEORGE

HOW DO LABOR RIGHTS RELATE TO INVOLVEMENT IN THE WORLDWIDE ECONOMY?.....1499

NICODIM LILIANA, DOBREA MIHAELA, RAZVAN DINA

GLOBAL BUSINESS COACHING AT DACIA GROUP. CONTRASTIVE APPROACH.....1506

PART IV

NIKOLAEV MIKHAIL, BELYAKIN ALEXANDER

IMPACT OF GLOBALIZATION ON THE SUSTAINABLE DEVELOPMENT OF ECONOMIC SYSTEMS IN THE CONTEXT OF ECONOMIC DISEQUILIBRIUM.....1512

NOVACKOVA DANIELA, SAXUNOVA DARINA, STRAZOVSKA LUBOMIRA

GLOBAL INVESTMENT PROJECTS IMPLEMENTED IN PUBLIC INTEREST IN SLOVAKIA1521

NOVAK DAVID

GLOBALIZATION - ITS BASICS AND VARIOUS RESULTS1530

NOVAK JAROMIR

SAFETY OF GLOBALIZED SOCIETY AND ITS ELEMENTS1539

NOVIKOVA GALINA, CHUB ALEXANDER, GUSHINA JULIA THE EFFECTIVE MANAGEMENT OF THE CONSTRUCTION COMPLEX OF THE REGION IN THE GLOBALIZATION CONDITIONS	1547
NOVOTNY JOSEF INVESTMENT IN GLOBAL ENVIRONMENT	1555
NOVY MILOS THE INFLUENCE OF GLOBALIZATION ON INTERNATIONAL TRADE IN THE CONTEXT OF MAXIMIZING CONSUMER SURPLUS AND PRODUCER SURPLUS.....	1563
NOWAKOWSKI WALDEMAR, LUKASIK ZBIGNIEW, BOJARCZAK PIOTR TECHNICAL SAFETY IN THE PROCESS OF GLOBALIZATION	1571
NURTDINOV ILGIZ I. USING ISNURANCE INSTRUMENTS FOR REDUCTION THE RISKS IN INTERNATIONAL LEASING OPERATIONS	1579
NYVLTOVA KRISTYNA EXPLANATORY POWER OF FINANCIAL HEALT ASSESSMENT IN AGRICULTURE.....	1588
OLCZYKOWSKI ZBIGNIEW, LUKASIK ZBIGNIEW THE IMPACT OF BLACKOUTS ON THE ECONOMY AND NATIONAL SECURITY	1596
OLVECKA VIERA THE ANALYSIS OF TAX LICENCE CONSEQUENCES ON GLOBAL BUSINESS ENVIRONMENT	1604
PALIDEROVA MARTINA, HRASKOVA DAGMAR DIMENSION OF INNOVATION IN ENTERPRISES	1613
PALUS HUBERT, ALTPERGEROVA ANDREA, PAROBEK JAN THE IMPACT OF GLOBAL FINANCIAL AND ECONOMIC CRISIS ON WOOD AND WOOD PRODUCTS MARKET IN SLOVAKIA	1620
PANUS JAN A DISCUSSION OF RANDOM GRAPH MODELS UTILIZATION FOR GLOBAL STRATEGIC MANAGEMENT	1628
PASHKUS VADIM Y., PASHKUS NATALIA A., PASHKUS MARGARITA V. EVALUATION OF CITY BRAND IN THE GLOBAL ECONOMY: TECHNIQUES AND PERSPECTIVES	1635
PASKRTOVA LUCIA DEPENDENCE OF SLOVAK ECONOMY GROWTH ON FOREIGN TRADE	1642
PELECKIS KESTUTIS, PELECKIENE VALENTINA, LACE NATALJA, POLAJEVA TATJANA, NEDELKO ZLATKO, POCAN VOJKO GLOBALIZATION OF INSURANCE INDUSTRY	1649

PELECKIS KESTUTIS, PELECKIENE VALENTINA, PIPIRIENE VIDA, SVEDIENE LAIMA	
ASSESSMENT OF NEGOTIATING POWER IN PREPARATION OF INTERNATIONAL BUSINESS NEGOTIATIONS STRATEGIES: THE CASE OF ATTRACTING INVESTMENTS	1657
PELLESOVA PAVLINA	
DESCREPTION OF SAFETY IN TERMS OF TOURISM	1665
PERSHINA TATYANA, MAKSIMCHUK OLGA, GETS VICTORIA	
THE COMPETITIVENESS OF CITIES IN THE CONTEXT OF GLOBALIZATION: PROBLEMS AND PROSPECTS FOR INCREASING COMFORT	1673
PETERKOVA JANA, TRAVNICKOVA ZUZANA	
MULTILATERAL ASPECTS OF ECONOMIC PARADIPLMACY IN THE CZECH REPUBLIC	1681
PETKEVICIUTE NIJOLE, BALCIUNAITIENE ASTA	
MANAGER'S COMPETENCE IN THE CONTEXT OF GLOBALIZATION: CASE OF LITHUANIA	1689
PETRACH FILIP, VOCHOZKA MAREK	
OPTIMIZATION OF A COMPANY'S CAPITAL STRUCTURE: GLOBAL PROBLEM OF THE CORPORATE FINANCE AND ITS POSSIBLE SOLUTIONS	1696
PIETRZAK MICHAL BERNARD, BALCERZAK ADAM P.	
SOCIO-ECONOMIC SUSTAINABILITY IN POLAND. SEM ANALYSIS AT REGIONAL LEVEL	1704
PICHANIC MIKULAS, STANKOVA ANNA	
"CAN THE GLOBALIZATION REDUCE INEQUALITY AMONG THE CENTRAL EUROPEAN COUNTRIES?" (THE CASE OF CZECH REPUBLIC)	1712
PLUSHCHEVA LARISA V., KISELEV VLADIMIR M., SAVINKOV SERGEY V.	
THE STUDY OF THE INFLUENCE OF COLOURS IN MARKETING COMMUNICATIONS: EMPIRICAL AND EXPERIMENTAL FIGURES	1720
PNIEWSKI ROMAN, KORNASZEWSKI MIECZYSLAW, CHRZAN MARCIN	
SAFETY OF ELECTRONIC ATC SYSTEMS IN THE ASPECT OF TECHNICAL AND OPERATIONAL	1729
PODHORSKA IVANA, SIEKELOVA ANNA	
THE IMPACT OF INTERNALLY GENERATED GOODWILL ON THE FINANCIAL PERFORMANCE OF COMPANIES – INTERNATIONAL COMPARISON	1736
POKRIVCAK JAN, TOTH MARIAN	
GLOBALIZATION AND REGIONAL DEVELOPMENT IN SLOVAKIA: THE ROLE OF POLICIES	1744
POLACKOVA HANA	
LABOUR MIGRATION IN THE EUROPEAN UNION IN THE CONTEXT OF ECONOMIC DEVELOPMENT OF PAST CENTURIES: THE ANALYSIS OF THE AUSTRIA-HUNGARY	1753

POLAKOVIC PETER, SLOVAKOVA IVANA, HENNYEYOVA KLARA E-GOVERNMENT AS A REASON FOR INCREASING DIGITAL LITERACY OF CITIZENS IN THE CURRENT CONCEPT OF GLOBAL E-DEMOCRACY IN THE EUROPEAN UNION	1761
PONGRACZ EVA GLOBAL PROBLEMS OF THE CONTEMPORARY WORLD AND THEIR SOLUTIONS AT THE LOCAL LEVEL THROUGH SOCIAL ENTREPRENEURSHIP	1768
PONISCIAKOVA OLGA, TERESHCHENKO SVETLANA GLOBALIZATION AND ITS IMPACT ON THE DEVELOPMENT OF PERSONAL CONTROLLING	1774
POPESCU GHEORGHE H., NICA ELVIRA, LAZAROIU GEORGE THE IMPACT OF ECONOMIC GLOBALIZATION ON SUCCESSFUL ENVIRONMENTAL STATE GOVERNANCE	1783
POSPIECH EWA, MASTALERZ-KODZIS ADRIANNA ECONOMIC DEVELOPMENT OF EUROPEAN UNION COUNTRIES IN GLOBALIZATION CONDITIONS – QUANTITATIVE ANALYSIS	1791
POSPISIL RICHARD, OANCEA BOGDAN, DRAGOESCU RALUCA THE FISCAL CONSTITUTION AS AN INSTITUTE OF PUBLIC FINANCES. THE CASE OF THE CZECH REPUBLIC AND ROMANIA	1799
PRIDACHUK MAKSIM, MALYSHEVA ELENA, NOVIKOV MAKSIM, BRECHOVA YULIA, ALMOSOV ALEKSANDR SYSTEM OF TARIFF PREFERENCES OF THE EUROPEAN UNION: SPECIFICS, PROBLEMS AND PROSPECTS OF DEVELOPMENT	1807
PRZYBYLSKA-MAZUR AGNIESZKA THE SELECTED METHOD OF ASSESSING THE IMPACT OF GLOBALIZATION ON THE ECONOMIC GROWTH OF COUNTRIES AND THE WELFARE OF ITS CITIZENS.....	1816
PRZYTULA SYLWIA GLOBAL MOBILITY OF THE WORKFORCE AND CROSS-CULTURAL INTERACTIONS IN THE MULTINATIONAL CORPORATIONS (MNCs)-AS THE CONSEQUENCES OF GLOBALIZATION	1824
PSENKOVÁ YVETTA COMPARISON OF TAX BURDEN OF INCOMES FROM THE DEPENDENT ACTIVITY OF EMPLOYEES IN THE CZECH REPUBLIC AND SLOVAK REPUBLIC IN THE CONTEXT OF GLOBALIZATION TRENDS	1832
RAILIENE GINTA, IVASKEVICIUTE LAURA INFORMATION QUALITY FOR P2P PLATFORM SELECTION IN A GLOBAL ENVIRONMENT	1840
REGNEROVA OLGA, SALKOVA DANIELA, REGNEROVA MARTA SUSTAINABILITY IN THE PROCESS OF GLOBALIZATION	1848
RIEVAJOVA EVA, PRIVARA ANDREJ LABOR MARKET AND MIGRATION OF SKILLED WORKERS ABROAD	1856

RINGSDORF BASTIAN, KAJANOVA JANA PREDICTIVE ANALYTICS IN THE GLOBAL VALUE CHAIN	1864
ROLENC JAN MARTIN DO RECENT INTERNATIONAL CRISES REPRESENT THE “END OF GLOBALIZATION”?	1872
ROSPUTINSKY PETER THE PARTICIPATION OF THE EUROPEAN UNION IN INTERNATIONAL ECONOMIC ORGANIZATIONS	1880
ROSTAROVA MONIKA, JANAC JAN START-UP ENTERPRISES IN THE WORLD OF GLOBALIZATION	1888
ROWLAND ZUZANA, VRBKA JAROMIR USING ARTIFICIAL NEURAL NETWORKS FOR PREDICTION OF KEY INDICATORS OF A COMPANY IN GLOBAL WORLD	1896
RUSCAKOVA ANNA EFFECTIVENESS OF MONETARY POLICY IN THE EUROZONE: INFLATION EXPECTATIONS, EXPECTED REAL INTEREST RATES AND THEIR EFFECTS ON THE LONG-TERM INTEREST RATES LEADING PATH IN THE CORE AND PERIPHERY OF THE EUROZONE	1904
RYBANSKA JANA, NAGYOVA LUDMILA, KUBELAKOVA ANDREA SENSORY MARKETING STRATEGY: USE OF THE SENSE OF TASTE ON THE GLOBAL MARKET OF FOOD	1912
SADYRTDINOV RUSLAN RAISOVICH, BEGLOVA ELENA IREKOVNA EQUIVALENCE SCALE ESTIMATION FOR REGIONS OF THE RUSSIAN FEDERATION	1919
SAIFULLINA YULIA MAGDATOVNA, BORISOVA ELENA IVANOVNA, OMAROVA AINURA TOYAKOVNA MODERN TRENDS OF REGIONAL BANK SYSTEM IN THE CONTEXT OF GLOBALIZATION	1927
SALAGA JAKUB IMPLEMENTATION OF ECONOMIC VALUE ADDED IN CONDITIONS OF GLOBALIZATION	1934
SALGOVICOVA JARMILA, KLINCEKOVA SILVIA GLOBALIZATION AND ITS IMPACT ON VALUES OF INFORMATION SOCIETY	1940
SAROCH STANISLAV, SMEJKAL VACLAV THE EU ECONOMY AND GLOBALIZATION – HOW TO CHANGE THE DESIGN OF MACROECONOMIC POLICIES TO MAINTAIN THE SOCIAL MARKET ECONOMY MODEL?	1946
SATSUK TATIANA P., KONEVA OLGA V. FINANCIAL MODELS OF TAXATION SYSTEMS: IDENTIFICATION APPROACHES	1956

SEEMANN PETER

UPCOMING GLOBAL METHOD OF TEAM COACHING IN INCREASING EMPLOYEE MOTIVATION1964

SEKOVA MARIA, VETRAKOVA MILOTA, DURIAN JOZEF

THE PROPOSAL OF INTERCULTURAL COMPETENCY MODEL OF MANAGERS IN MULTINATIONAL COMPANIES1972

SHARAFUTDINOVA NATALIA

BUSINESS-PROCESS APPROACH IN AN AUTOMOTIVE INDUSTRY ENTERPRIS IN CONDITIONS OF GLOBAL COMPETITION1980

SHARAFUTDINOVA IRINA, SHISHKINA ELENA

OPPORTUNITIES FOR THE DEVELOPMENT OF THE EMISSION ACTIVITY OF THE RUSSIAN MUNICIPALITIES IN A GLOBALIZED ECONOMY1989

SHAVSHUKOV VIACHESLAV M.

BRICS AT GLOBAL DEBT CAPITAL MARKETS (2005–2015)1996

PART V

SIEKELOVA ANNA, PODHORSKA IVANA

PROVISION OF TRADE CREDIT UNDER THE CONDITIONS OF GLOBALIZATION.....2005

SIPIKALOVA SILVIA

MATERIAL DEPRIVATION AND ITS REFLECTION IN THE SLOVAK SOCIETY2014

SKALSKA SONIA KOZUB

THE ACTIVE ROLE OF THE STATE AND TAX COMPETITION IN THE ERA OF GLOBALIZATION.....2022

SKORSKA ANNA, BALCEROWICZ-SZKUTNIK MARIA

GLOBALIZATION AS THE DETERMINANT OF HIGH-TECH SECTORS DEVELOPMENT2028

SMAJS JOSEF

ON THE TRANSFORMATION OF HUMAN LABOR IN THE GLOBALIZATION PERIOD.....2036

SOLT ESZTER

MONETARY POLICY RESPONSES TO THE GLOBAL FINANCIAL CRISIS SHAPING THE NEXT STAGE FOR THE EUROPEAN MONETARY INTEGRATION.....2043

SOLTES DUSAN

GLOBAL AND REGIONAL TRENDS IN FDI: SOME ADVANTAGES BUT ALSO PROBLEMS.....2052

SOLTES VIKTOR, STOFKOVA ZUZANA

SECURITY AS AN ASPECT OF THE QUALITY MANAGEMENT IN LOCAL SELF-GOVERNMENT IN AGE OF GLOBALIZATION2060

SOROKOVA TATIANA, PETRIKOVA DANIELA PSYCHOLOGICAL-ETHICAL ASPECT OF BRAND VALUE IN THE PLANE OF THE GLOBAL VALUE CHAIN	2068
SPIRIN JOSIF, ZAVYALOV DMITRY, ZAVYALOVA NADEZHDA GLOBALIZATION AND DEVELOPMENT OF SUSTAINABLE PUBLIC TRANSPORT SYSTEMS.....	2076
SPONER MIROSLAV, SPONEROVA MARTINA GLOBALIZATION AND MONETARY POLICY TOOLS AT THE ZERO LOWER BOUND.....	2085
SPUHLAKOVA ERIKA, FRAJTOVA-MICHALIKOVA KATARINA THE SELECTED GLOBAL BANKRUPTCY MODELS	2093
SREDL KAREL, SOUKUP ALEXANDR, RODONAIIA ELIZBAR CHANGING OF CONSUMER PREFERENCES IN RELATION WITH THE GROWTH OF WELFARE OF THE POPULATION	2099
STEHEL VOJTECH, SULER PETR THE GAME THEORY AND SHALE GAS IN A GLOBAL ECONOMY.....	2108
STOFKOVA JANA, GASOVA KATARINA, ROVNANOVA ALEXANDRA E-GOVERNMENT SERVICES FOR BUSINESSES PROVIDED IN THE GLOBALISED WORLD	2118
STOFKOVA ZUZANA, STOFKO STANISLAV SOME INDICATORS OF QUALITY OF LIFE IN A GLOBALIZED WORLD	2127
STOPKA ONDREJ, KAMPF RUDOLF, LIZBETIN JAN, HLATKA MARTINA PROPOSAL FOR OPTIMIZING THE TIMETABLES WITHIN TRAM SUBSYSTEM OF URBAN PUBLIC TRANSPORT FROM THE INTERNATIONAL CONCEPTION.....	2135
STRENTZEROVA MARIANA, GARBAROVA MIRIAM IMPACT OF GLOBALIZATION ON HUMAN RESOURCE MANAGEMENT IN THE INFORMATION AND COMMUNICATION SECTOR	2143
STROJEK-FILUS MARZENA, MARUSZEWSKA EWA WANDA NEW INTANGIBLE ASSETS DERIVED FROM GOODWILL – GLOBALIZATION OF POLISH ENTITIES ACCOUNTING PRACTICE.....	2151
SUKALOVA VIERA, CENIGA PAVEL SOCIAL ASPECTS OF COMPANY MANAGEMENT IN ERA OF GLOBALIZATIO...	2159
SULIKOVA ROZALIA, STRAZOVSKA LUBOMIRA WOMEN IN MANAGEMENT	2167
SVABOVA LUCIA, DURICA MAREK A CLOSER VIEW OF THE STATISTICAL METHODS GLOBALLY USED IN BANKRUPTCY PREDICTION OF COMPANIES.....	2174
SYAGLOVA YULIYA MARKETING PARADIGMS TRANSFORMATION AND GLOBALIZATION PATTERNS.....	2182

SYKOROVA JULIA, GALIERIKOVA ANDREA, SOSEDOVA JARMILA INTERNATIONAL PROJECT SEINE-NORD – ENLARGEMENT OF THE EUROPEAN WATERWAY NETWORK.....	2191
TKACHENKO IRINA, PERVUKHINA IRINA IMPACT OF GLOBALIZATION ON FORMING CORPORATE GOVERNANCE VALUE CONSTITUENT THROUGH THE PRISM OF GENDER APPROACH.....	2198
TOKAROVA MARIA APPROACHES TO THE CURRENT SELECTED CHALLENGES OF GLOBALIZATION.....	2204
TOLSTEL MARINA, PRIDACHUK MAKSIM REGIONAL INTEGRATION AS THE FACTOR OF NATIONAL ECONOMIES'S DEVELOPMENT UNDER THE CONDITIONS OF GLOBALIZATION (THE CASE OF THE EURASIAN ECONOMIC UNION).....	2212
TOTH MARIAN, LANCARIC DRAHOSLAV, SAVOV RADOVAN CHANGES IN PERFORMANCE OF SLOVAK AGRICULTURE DRIVEN BY INTEGRATION AND GLOBALIZATION	2220
TRELOVA SILVIA THE REQUIREMENT OF FLEXIBILITY AND LABOUR MOBILITY AS A RESULT OF GLOBALIZATION.....	2228
TULYAKOVA IRINA R. THE UNITED STATES AND RUSSIA ON THE GLOBAL ARMS MARKETS	2236
TUMANYANTS KAREN THE IMPACT OF TAX RATE ON ACTIVITY OF SMALL ENTERPRISES: INTERNATIONAL EXPERIENCE AND RUSSIAN CASE.....	2245
URAZGALIEV VLADIMIR SH., KOROSTYSHEVSKAYA ELENA M., MENSHIKOVA GALINA A. FORMING OF COLLECTIVE AND ECONOMIC SECURITY WITHIN THE FRAMEWORK OF UN CONCEPTION OF THE PEACEBUILDING	2252
VAGNER LADISLAV CONTROLLING AS A COMPETITIVENESS TOOL IN THE GLOBAL MARKET.....	2260
VALACHOVA VIERA INFLUENCE OF THE GLOBAL ENVIRONMENT ON THE EMPLOYEE PARTICIPATION IN DECISION MAKING OF COMPANIES IN SELECTED COUNTRIES OF THE WORLD	2267
VALASKOVA KATARINA GLOBAL ASPECT OF RISKS OF CONSUMERS IN THE DIGITAL SINGLE MARKET.....	2275
VALEEVA JULYA TOOLS OF INTENSIVE DEVELOPMENT OF RETAIL CHAINS ON THE BASIS OF INTERNATIONAL EXPERIENCE	2283

VANEK JIRI, OCENASEK VLADIMIR, STOCES MICHAL, MASNER JAN ADOPTION OF MODERN ICT IN REGIONAL PERSPECTIVE – SITUATION IN THE CZECH REPUBLIC.....	2291
VANICKOVA RADKA, BILEK STANISLAV EUROPEAN UNION PRIORITIES FOR THE CONCLUSION OF THE INTERNATIONAL TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP AND ITS POSSIBLE IMPLICATIONS FOR THE EU.....	2299
VARMUS MICHAL, KOMAN GABRIEL, HOLUBCIK MARTIN GLOBALIZATION ASPECTS OF CREATING COOPERATION IN SPORT ENVIRONMENT WITH SUPPORT OF BIG DATA.....	2307
VARVAZOVSKA PAVLA, JARKOVSKA MARTINA LOCAL COOPERATION BETWEEN NON-GOVERNMENTAL ORGANIZATIONS AND PUBLIC ADMINISTRATION AS A COUNTERPOINT TO GLOBALIZATION.....	2315
VAVROVA KATARINA, BIKAR MILOS EFFECTIVE TAX ADMINISTRATION AS A FACTOR AFFECTING THE COMPETITIVENESS OF SLOVAKIA AT THE GLOBAL LEVEL	2324
VAZQUEZ-BURGUETE JOSE LUIS, SAHELICES-PINTO CESAR, LANERO- CARRIZO ANA, GUTIERREZ-RODRIGUEZ PABLO, GARCIA-MIGUELEZ MARIA PURIFICACION SMART CITIES IN GLOBAL SOCIETIES: A CONCEPTUAL REVIEW WITH SPANISH CITIZENS	2332
VERTAKOVA YULIA, KHARLAMOVA EKATERINA TRANSFORMATION OF INSTITUTIONAL FACTORS IN THE DEVELOPMENT OF HIGH-TECH PRODUCTION IN THE CONTEXT OF GLOBALIZATION	2342
VERTAKOVA YULIA, POLOZHENTSEVA YULIA, KLEVTSOVA MARIA SANCTIONS AND ECONOMIC POLICY IN THE CONDITIONS OF GLOBALIZATION.....	2354
VEVERE VELGA GLOBALIZATION OF EDUCATION AND UNIVERSITY SOCIAL RESPONSIBILITY.....	2362
VIRLANUTA FLORINA OANA, MANEA DANIELA LUDMILA EUROPEAN INSURANCE MARKET IN THE CONTEXT OF GLOBALIZATION.....	2370
VODAK JOSEF, SOVIAR JAKUB, KUBINA MILAN COORDINATION MANAGEMENT – SOFTWARE SUPPORT SOLUTION.....	2377
VOCHOZKA MAREK DECOMPOSITION OF A MAIN OBJECTIVE OF AN INTERNATIONAL COMPANY SET WITH THE HELP OF ARTIFICIAL NEURAL NETWORKS INTO DAILY PLANS	2383
VOCHOZKOVA JACQUELINE, KHENDRICHE TRHLINOVA ZUZANA CRITERIA AND INDICATORS FOR ASSESSING THE SUSTAINABILITY OF SPATIAL DEVELOPMENT ON THE EXAMPLE OF THE LOCAL AGENDA 21	2392
VOJTEKOVA MARIA, BLAZEKOVA OLGA BAD DEBTS AS A GLOBAL PROMLEM IN BANKING SECTOR	2401

VOKOUN MAREK

GLOBALIZATION AND INNOVATION: INNOVATION ACTIVITIES OF MULTINATIONALS IN THE CZECH REPUBLIC 1998-2010.....2409

VOLKOVA ALBINA A., PLOTNIKOV VLADIMIR A.

CORRELATION BETWEEN BETTER PERSONNEL TRAINING AND INCREASED EFFICIENCY OF SERVICE COMPANY MANAGEMENT IN THE CONTEXT OF GLOBALIZATION.....2417

VOLKOVA ALBINA A., PLOTNIKOV VLADIMIR A.

METHODS AND MODELS OF MANAGEMENT APPLIED TO INCREASE SERVICE COMPANY MANAGEMENT EFFICIENCY IN THE CONTEXT OF GLOBALIZATION.....2425

YAGUDIN R, RYBKINA N., FAKHRUTDINOVA E., VALIEVA G.

GLOBAL PROBLEM OF DEMOGRAPHIC DYNAMICS IN THE IMPLEMENTATION PROCESS OF MEDICO-SOCIAL PROGRAMS: ISSUES OF BIRTH RATE.....2433

YAGUDIN R.KH., YURKOV D.V., YAKUNINA R.P., VISHNJAKOV N.I.

THE IMPACT OF HEALTH CAPITAL ON RESULTS OF CORRELATION ANALYSIS WHICH CONSTITUTE HUMAN DEVELOPMENT IN THE REGIONS OF THE RUSSIAN FEDERATION2442

ZABOJNIK STANISLAV

ANALYSIS OF THE CONTEMPORARY TRENDS IN THE DEVELOPMENT OF CHINESE FDIS IN CEE16 COUNTRIES.....2448

ZADNANOVA SILVIA

INTERNATIONALIZATION AND STANDARDIZATION OF MARKETING MIX FOR NEEDS OF A RANDOM FOREIGN MARKET ENTRY2457

ZAUSKOVA ANNA, GRIB LUKAS

IMPACT OF GLOBALIZATION ON SLOVAK BUSINESSES IN MARKETING PROMOTION OF ECO-INNOVATIONS.....2465

ZECA ECATERINA DANIELA

GLOBALIZATION REMODELS THE WAY WE LIVE, RELATE TO ONE ANOTHER, WORK AND DO BUSINESS2473

ZEITHAMER TOMAS R.

THEORETICAL BACKGROUND FOR THE GLOBALIZATION OF RETAIL GRAVITATION2482

ZEMANOVA STEPANKA, DRULAKOVA RADKA

MAKING GLOBAL GOALS LOCAL BUSINESS IN V4 COUNTRIES: V4 ENTREPRENEURS AND THE UNGLOBAL COMPACT2490

ZEMANOVICOVA DANIELA, VASAKOVA LIVIA

INDEPENDENT REGULATORY INSTITUTIONS IN THE GLOBAL ECONOMY2498

ZHURAVLEVA NATALIA A., PANICHEV ALEXANDER U.

MEGATRENDS OF GLOBAL TRANSPORTATION SYSTEMS DEVELOPMENT THE RUSSIAN SEGMENT2505

IMPACT OF GLOBALIZATION ON THE SUSTAINABLE DEVELOPMENT OF ECONOMIC SYSTEMS IN THE CONTEXT OF ECONOMIC DISEQUILIBRIUM

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Abstract. This article considers the issues of the impact of globalization on the sustainable development of non-equilibrium economic systems characterized by unstable dynamics and substantial divergence of key macroeconomic indicators. It is emphasized that economic disequilibrium can be maintained indefinitely, sometimes for many decades. This indicates that non-equilibrium systems have a special internal self-organization forming a certain kind of economic order therein. The role of globalization in this order is analyzed. It is shown that the long-term disequilibrium with decreased sustainable development was observed in Russia throughout the Soviet and transition periods. It was manifested in growing structural imbalances and chaos, reduced management effectiveness, and regular economic crises afterwards. However, the similar negative phenomena of the transformation period were considerably less evident in Eastern Europe. The reasons for non-equilibrium trends were analyzed in the context of globalization effects. It is established that in Russia, where internationalization of the economy actually started only after the collapse of the Soviet Union, these reasons were low product competitiveness, mainly raw-exports role in the foreign trade, lack of investment, capital outflow. As for Eastern Europe, positive effects of globalization, such as facilitating economic cooperation between countries and increasing international division of labor, were more evident with regard to them. It is shown that this is significantly associated with the common European historical and cultural values, common territorial, economic and information space, which allowed mitigating the impact of negative aspects of globalization on the sustainable development in the context of economic disequilibrium. The purpose of the study is to identify the conditions and mechanisms of globalization impact on sustainability of development of economic systems. Methods of the study: historical and economic analysis method; abstract logic method; comparative analysis; elements of the method of nonlinear dynamics theory.

Key words: globalization of economies, sustainable development, economic disequilibrium, self-organization and self-similarity, efficiency.

JEL Classification: F15, F63, O19, P51

1. Globalization as a process of rapprochement and unification of the various socio-economic systems, the ambiguity of its impact on economic and social development

At all stages of formation and development of the world economy the processes of internationalization of business activities took place, the essence of which was in strengthening the interaction between economic systems of various countries, increasing their interdependence with each other and interconnection of national economies. At the heart of this phenomenon were the objective preconditions in the form of processes of developing and deepening of international division and cooperation of labor, deepening of foreign trade and improving of international economic relations as a whole.

However, if originally from about the end of the XVIII century to the middle of the XIX century the internationalization covered mainly the sphere of circulation and little touched the production itself, then already by the end of the XIX century it spread to the processes of international movement of capital and formation of stable industrial connections between countries. This has played a largely positive role in accelerating the development of national economic systems and improving the sustainability of their economic relations, it has created the basis for strengthening the openness of national economies, and in conjunction with the new phenomena in the development of scientific and technological progress - to move to a qualitatively new internationalization stage - economic integration. The impact of integration on non-equilibrium macroeconomic dynamics, in turn, was ambiguous and occurred in many directions.

First, through partial and sometimes complete unification of national economies of various countries, which put together the types of economic behavior of economic entities and contributed to the formation of similar types of structural ordering in economic systems that occur, ultimately, under the influence of internal mechanisms of self-organization. These structures can now be described quite well by methods of the theory of nonlinear dynamics in the form of so-called phase portraits, or phase trajectories, studied by many authors, for example, in the 1990-s (Butkovskiy, 1991) and allow us to identify the type of economic disequilibrium being emerged in economic system, to predict the directions of its development – strengthening or weakening - and apply measures to mitigate possible negative impacts.

Secondly, this occurred through the elimination of barriers between countries in the promotion of capital, innovations, working force, goods and services through convergence of markets of individual countries and formation of tendencies to form a single common market.

Thereon, however, the process of internationalization of economic activity has not ended. Numerous quantitative accumulations and changes, by which they were accompanied, eventually have led to the emergence of a new phenomenon of globalization as one more qualitatively new stage in the development of internationalization processes.

The concept of globalization was put into use in the mid-1980s by R. Robertson and also by him one of the first concepts of globalization has been developed, where he considered it as a long historical process and highlighted the dual nature of globalization, simultaneous combination in it of universal and particularistic tendencies, i.e. general and particular. At the same time R. Robertson paid particular attention to phenomenological and psycho-social side of globalization, i.e. relating to behavior, changes in mindset and interpersonal interactions of people of different social groups, defining it as "compression of the world and intensification of consciousness of the world as a whole". (Robertson, 2011)

Later many other approaches appeared, such as of I. Wallerstein, where more pronounced material component of globalization was expressed. (Wallerstein, 2000) In 1997, in "Review of the world economy", prepared by the International Monetary Fund, globalization has been identified, perhaps most accurately as "growing role of external factors (economic, social and cultural) in reproduction of all the member countries of this process, formation of a single world market (markets), without national barriers and creation of common legal terms for all countries". (World Economic, 2014) M. Castells defined globalization as a "new capitalist economy" and as its main characteristics he called the dissemination of information, knowledge and information technologies, being the main sources of productivity growth and competitiveness of the countries and organization of the new economy through the network structures of management, production and distribution. (Castells, 2001) A. Giddens presented globalization as intensification of social relations being spread around the world and connecting the remote from one another locations so that individual local events were generated by other events that occurred many miles away, and vice versa. (Giddens, 1990)

So, summing up, we can say that globalization is an objective process of gradual rapprochement and unification of different social systems, acting on all aspects of human life, including economy, trade, management, formation of one or another type of economic order, form of social consciousness, culture, human interrelationships etc.

However, this effect is ambiguous and contradictory. On the one hand, being the certain universal form of socialization, globalization undoubtedly contributes to world economic progress through the formation of a single free-market by rapid development and spread of information technologies and knowledge, that got the name of Internet revolutions and knowledge globalization (Mohaghegh, 2016), through widespread innovations of different types (Khalabuda & Nikolaev, 2014), (Postalyuk & Akhmetshina, 2014), through the integration of mankind into a single community by improving the quality of life. On the other hand, it also undoubtedly brings with it the threat of loss of self-identity of nations, destruction of national cultures, imposition of alien behaviors and traditions, weakening the economy's resilience to external factors. (Elena, 2016), (Voutsas & Borovas, 2015)

Therefore, study of the impact of globalization on sustainable development of economic systems is urgent. The urgency is particularly enhanced by the fact that the economies of many countries are either periodically pass through the disequilibrium state, characterized by unstable dynamics and significant deviation of the main macroeconomic indicators from their normal values, which during the last decade resulted in a whole series of global economic crises, as in the context of globalization, being originated in some countries, they are easily exported to any or most of the others.

1.1 Conditions and channels of the impact of globalization on the sustainability of development of non-equilibrium economic systems

The impact of globalization on the development of economic systems of different countries and their resistance to negative external influences is determined by numerous factors and conditions inherent to these countries - firstly by the general level of social and economic development, the state of technological basis, by the degree (type) of the current economic disequilibrium, which can persist for decades. This influence is carried out through many channels and especially through the various suprastate entities, organizations and institutions. For example, such as: the United Nations, the task of which is to maintain international peace and security, this in itself being one of the most important preconditions for sustainable economic growth; the European Union, which forms the common European area without

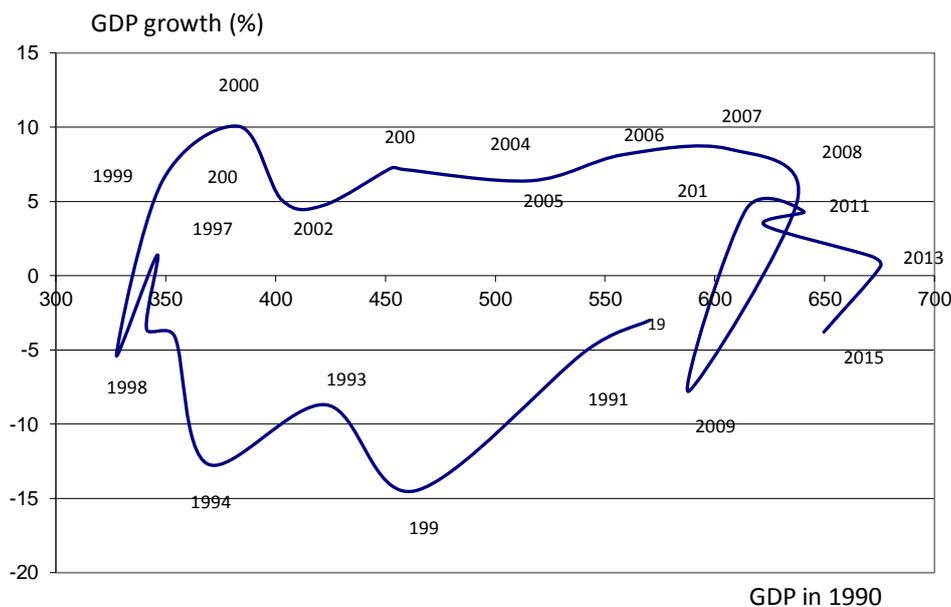
internal frontiers with such suprastate attributes, as currency, court, law, parliament and others. Among the huge number of international organizations it is possible to highlight: the World Trade Organization (WTO), the main objective of which is to promote unhindered international trade and fighting protectionism; the International Organization for Migration (IOM); the International Organization for Entrepreneurship and Investment (INOBI), which provides support for international business in the interests of the business community in all countries. The activities of these organizations, aimed at improving the sustainable development of economic systems, is particularly important in the current context characterized by the growth of international tension and inter-country disputes involving mutual claims and sanctions, which cause serious damage to the economy of these countries and the global economic system as a whole. (Bagheri & Akbarpour, 2016)

Let us analyze in more details some aspects of the impact of globalization on stability of economic development by the example of the Russian Federation, the economy of which is for a long time in a state of economic imbalance. This condition was observed more in its Soviet period, especially evident in the 1970-1980-s in continuous build-up of structural imbalances and deficits, deterioration in the quality of products, lack of investments, strengthening the raw material orientation of the economy, decreasing the competitiveness of the system and quality of life of population, deterioration of macroeconomic performance. It reached its peak in the beginning of market reforms of M. S. Gorbachev, when radical changes have become inevitable.

However, the reforms and transition to the market occurred in the harsh conditions of the state decay and essentially unprecedented destruction of nearly a century of economic relations, which could not but affect the overall picture of the process.

Let us consider the phase trajectory of the Russian economy built in the coordinates: Gross Domestic Product - economic growth.

Figure 1: Phase trajectory of economic system of the Russian Federation for the period 1990-2015.



Source: Own processing according to the materials of table 1

Table 1: Gross domestic product of the Russian Federation in 1990 prices for the period from 1990 to 2015.

Years	1990	1991	1992	1993	1994	1995	1996
GDP in 1990 prices, \$ bln.	570,4	541,9	463,3	423,0	369,3	354,1	341,3
GDP growth rate in % to the prev. year	-3,0	-5,0	-14,5	-8,7	-12,7	-4,1	-3,61

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
346,1	327,6	348,4	383,4	402,9	422,0	452,8	458,3	516,2	558,3	606,0
1,38	-5,35	6,35	10,05	5,09	4,74	7,25	7,15	6,39	8,15	8,54

2008	2009	2010	2011	2012	2013	2014	2015
637,8	587,9	614,4	640,6	622,6	671,3	675,3	649,6
5,25	-7,8	4,5	4,3	3,4	1,3	0,6	-3,8

Source: compiled by the authors according to the materials of *Russia's GDP by the year: 1990-2015*. Retrieved November 02, 2016, Available: <http://investorschool.ru/vvp-rossii-po-godam>

In the figure we see a picture of the transforming economic system, which is broadly in line with the global trends of socio-economic development (positive consequences of globalization) - transition from directive to more effective self-regulating market system. However, this transition occurs contradictory and at great cost. The phase trajectory shows at the same time elements of different structures of the order - unstable limit cycle from 1990 to 2000; self-oscillation mode from 2001 to 2007; sharp deterioration of macroeconomic dynamics from 2008 to 2015 - topologically yet having no unambiguous interpretation. Therefore, it is important for the analysis not only the isolation in the phase trajectory of individual irreducible further topological structures, but also comparing them to real events and socio-economic processes taking place in the country.

Thus, since the beginning of 1990 to 1997-1998 the situation was deteriorating rapidly, the economic imbalance grew, and the volume of GDP reached in 1998 the minimum value for the entire period under review. The crisis of 1998, later called default, was caused by a number of reasons, internal and external.

To the first reasons experts commonly relate the following: a) the consequences of controversial and ill-conceived domestic economic policy of Russia; b) unstable political situation in the country. (Gashinskaya, 2015)

The external reason was strong financial crisis that erupted in 1997 - 1998 in the countries of Southeast Asia, including Thailand, Malaysia, Singapore, Hong Kong, Indonesia, South Korea and partly in Japan. This crisis, firstly, significantly undermined the stability of the domestic capital markets, and through the channels of globalization and the whole global financial market, at the same time painfully having hit the more weak and underdeveloped financial market of Russia, even more deepening the state of disequilibrium and for years has braked market transformations. Secondly, it has led to a serious decline in business activity and the fall in world oil prices, which also negatively affected the status of Russia as a country-exporter.

One can note the published statements about the possible "planning" of the Asian crisis by global financial players and use for this purpose the IMF (Demiroglu & Karagoz, 2016) and UNCTAD mechanisms - the UN Conference on Trade and Development and appropriate arguments are presented. (Khonstantinov & Ilyinskiy, 1999) However, regardless of truth of these statements, the impact of globalization on the economic development of countries stability

is so obvious. And the degree of this influence is proportional to the level and type of prevailing at the appropriate point in the economic disequilibrium.

Notwithstanding the abovementioned, in the subsequent years, already since 1999, which is well visible on the phase trajectory, in the Russian economy the increase began in both GDP volumes and economic growth rate and their stability is most evident between 2002 and 2007. This is the time of the most successful development of the system on the way of market transformations.

However, already in 2007, a new world economic and financial crisis began, the consequences of which were felt by national economies of several countries, including Russia, for many years. (Madalina-Ioana, 2014), (Tsampra & Sklias, 2015), (Sujova, 2015) The phase trajectory of the Russian economy of these years takes intricate character, again indicating the growth of non-equilibrium states in the system. From 2007 to now the tendency is well reviewed to almost continuous slowdown of economic growth, and in recent years - to absolute reduction in the volume of GDP, which even prompted some experts to assert about the local Russian crisis in 2014-2015.

1.1.1 On the mechanism of the impact of globalization on the sustainability of economic development.

Let us consider a mechanism of impact of globalization on stability of economic development, which seems to be largely connected with the property of self-similarity or fractality of complex systems. The concept of fractality was introduced in 1980-s by American scientist B. Mandelbrot and meant scale invariance of the object, i.e, its ability to look the same, regardless of the scale of observation. (Mandelbrot, 1982) Based on the fractal (self-similar) sets he described and explained some previously fundamentally unexplainable most complicated chaotic (non-equilibrium) natural phenomena. And it soon became clear that many social and economic processes also have it: pricing and stock quotes; wage distribution; population and urban growth and others. (Mandelbrot & Hudson, 2004) This property can be also extended to the economic systems as a whole. (Nikolaev, 2005) As a first approximation, it means reproduction at all stages of development of the same basic characteristics of the system, albeit in a new concrete historical form. These characteristics are directly connected with the dominant in economic system institutions, and under them either new economic relationships immediately fully adapt to all arising in the process of reforms and changes, or a gradual change in the specific forms of implementation of the basic characteristics while preserving their content occurs. In Russia, these include primarily the dominance of government institution, which throughout the whole history played a key role in the economic development of the country, and particularly significant role in both social and all socio-economic and political life of informal relationships, as opposed to formal ones. The above characteristics are objectively due to the huge complex of reasons and are the product of centuries of historical development, forming a national identity framework. Therefore, they cannot simply at will be canceled or liquidated. In place of monarchy the power of Secretary-General came, to replace them - the power of the president. In recent history, there was only one short period at the beginning of the presidency of Boris Yeltsin, when the dominance of political power had weakened and it seemed that things would go differently. However, Yeltsin soon began to request from the State Duma for more and more powers and eventually everything fell into its place.

The property of self-similarity is almost negligible during periods of normal sustainable development, but immediately manifests itself in times of revolutions, radical transformations,

changing types of economic disequilibrium accompanied by chaotic phenomena actually being the factor hindering transformations, appearing as a kind of economic inertia. World history knows many examples, when a revolution finally ended with the complete restoration of the previous relationships. However, the self-similarity cannot be viewed only from the negative side. It performs in the social development a kind of security functions, directing it in accordance with the internal factors, formed over centuries, rather than random external ones.

Everything said above is directly related to globalization. Being in relation to individual countries the external factor of unification and unity, it is in contradiction with the property of self-similarity of their socio-economic and socio-political systems and the formed way of life, which manifests itself in various forms of public protest, for example, in ever expanding anti-globalization movement, in categorical rejection of these or those innovations. For example, England, being in the European Union, did not take the single European currency, and ultimately voted out of it. In any country of the European Union there are still these or those identical only to them forms, structures and institutions.

It must be noted that the impact of globalization on different countries is different. In some cases, as a rule, in the presence of strongly expressed phenomena of economic disequilibrium, its contradiction with self-similarity of the system is manifested quite sharply and the positive aspects of globalization are not implemented or implemented not fully. In other cases, the situation is different. For example, in most Eastern European countries that proceeded to the market, the picture of transition evolved more relaxed and in relation to them the positive aspects of globalization were increasingly realized. This is due to the fact that the transfer was carried out here in much different socio-economic conditions.

Firstly, there was no such expressed, as in Russia, long economic disequilibrium. Second, there was absence, such as in Russia, of the impact on the economic life of the institution of power (except for some relatively short periods), because here, as in most Western countries, the dominance was associated primarily with the institutions of law and property. Third, in other, milder forms privatization was carried out. In addition, no doubt, here community of territorial, economic and information space with developed countries of Western Europe was affected, as well as the unity of the common European historical and cultural values (Kharlamova, 2015), which in turn eased, but somewhere even negated the contradiction between globalization and self-similarity of their social and economic systems.

2. Conclusion

All of the above leads to the following conclusions:

- The important condition for the impact of globalization on the sustainable development of economic systems is the degree and type of formed in them economic disequilibrium. The positive effects of globalization increasingly are implemented in developed countries, where an economic disequilibrium is smoothed and negative effects - in the underdeveloped and developing countries, where the disequilibrium is pronounced, and sometimes reaches a critical value.
- One of the main elements of the mechanism of globalization impact on the sustainability of economic development is its interaction with one of the most important integrated properties of socio-economic systems - their self-similarity (or fractality). The contradiction inevitably arising in this interaction can be resolved in various, including destructive forms - from total acceptance of new values to the formation of barriers on

the ways to their implementation and total rejection.

- Based on the properties of self-similarity, the possibility of formation even in perspective of the single world state with the unified world government seems impossible. The development of globalization will likely occur in cycles or waves, the same as all processes in the world - through ups and downs. The downward wave in fact already started: observed in recent years weakening the role of the UN and the Security Council, ignoring of WTO rules by many countries and holding contrary to them sanctions policy, ignoring international law, strengthening anti-globalization movement, and others. It seems that it will only increase in the coming years, as every process has its own internal logic of development and, once started, it continues until all incorporated in it potency exhausted.
- To increase the resistance of development of nonequilibrium Russian economic system to the effects of negative aspects of globalization today it is necessary: 1) to reform the institutional structure of society in the direction of strengthening the role of the Institute of law in economy and reduce the institutions of power and informal relations operating in inefficient mode, reminding a mode of institutional traps and causing the stability of corruption, bureaucracy and other negative phenomena; 2) to reject the raw materials export model of development, restore full-value industrial policy and synchronization of its tools with the processes of globalization; 3) provide conditions for full and effective development of entrepreneurship as a key institution of the market economy.

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GLOBAL INVESTMENT PROJECTS IMPLEMENTED IN PUBLIC INTEREST IN SLOVAKIA

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Abstract. The growing pace of globalization in the world economy has brought significant changes and new challenges for the national economics worldwide. The global movement of investments and relations of investors and investees, as important phenomena having an impact on globalization have become a priority due to structural changes in the global and European economy, because they should support economic growth, trade and regional development in national economics. All over the world the state economies, mutually interlinked, strengthened and deepened their bounds. The Slovak Republic supports inflows of foreign direct investments through economic and legal instruments. The research object of this scientific paper is the FDIs implementation in public interest in Slovakia and its objective is to analyse measures supporting the execution of investment projects whose influence on the economic growth is positive. A regional state aid supports FDI inflows, assists to strengthen economic and social convergence and moreover, it is a key instrument for the future growth, employment and competitiveness therefore it may be understood as an inseparable part of the state policy. Complying with the EU rules in the area of Slovak economic policy is highly emphasized when providing regional state aid. The FDI projects executed in public interest in Slovakia comply with the EU rules in force.

Keywords: development, investment, public interest, legal entity

JEL Classification: F21, F62, F66

1. Introduction

The accumulation of the capital is an inevitable factor of favourable economic growth. The accumulated foreign capital inflows thus foreign direct investments is a crucial indicator of the competitiveness in the global world and the countries lacking financial resources compete to attract potential investors. One of the globalisation signs is the movement of capital e.g. in the situation, when states with developed economies invest very frequently into developing countries or countries with the weaker economies and thereby helping them grow economically. To create a globally functioning system in the area of investments it is necessary to protect investors' interests and especially to secure development of investment relations the investors' capital must be invested in compliance with the approved legal regulation. International investments have an economic dimension and therefore a lot of international economic organization (WTO, OECD, EU, UNCTAD) and international financial organizations (World Bank Group) create the rules for regulation of international affairs in the area of investment

protection and support. Globalization processes have impact on internationalisation of the economies (Milošovičová, Paškrtová, 2015) and the process of economic integration is taking place on the base of the commercial relations and forming the national economic communities is considered its most significant phenomenon. (Viturka, 2010).

Slovakia is a focus of EU member-state investors. As a consequence of Slovak EU membership legal constraints of capital movement have been removed and the EU system of economic tools for supporting foreign investment inflows has been introduced.

2. State Aid as a Stimulus of Foreign Direct Investment (FDIs)

Economic performance of the regions is affected by mutually interlinked factors, such as geographical location, demographic data, specialization, productivity, accessibility of financial and human capital, infrastructure development and capacity of innovation (Stachova, Šuplata, 2013) and positively correlates with the development of the financial sector. (Wongpiyabovorn, 2016). The government with its policy and various forms of aid and stimuli influences FDI inflows. FDIs contribute to country's GDP, regulations governing these phenomena is the object of the research of scientists, e.g. investors' location choice for FDIs, relevant factors in the need of a focus e.g. when making a decision, etc.. Krugman (1991), Combes and Ypersele (2013) point out that "there is a circular economic causality between variables "GDP and GDP per capita" on the one hand, and "density and market potential" on the other. It is believed that high density and high market potential cause a region to be wealthier measured by both total GDP and GDP per capita." The dense regions may be understood as a synonym of a) large markets for the goods produced (increasing profitability due to the higher returns owing to the economy of scale), b) large markets for intermediate inputs and labour making manufactured goods less costly, and c) faster innovation and technology diffusion affecting productivity directly and positively). Attractiveness of goods for sale supports trade, but the access to other regions is fact supporting sale. The community is getting richer, bringing profits for firms and firms provide the highest utility to households, thus attract more activities, people and firms resulting in density and market potential disparities. "When two directions of causality combine, the result is a snowball effect: denser regions are more attractive, leading to the growth in density, reinforcing attractiveness, and so on. Moreover, density and market potential, new FDIs are attracted by the record of successful past investments (Combes & Ypersele, 2013). Thus, density and existence of potential market (its closeness/accessibility) are key factors for investors.

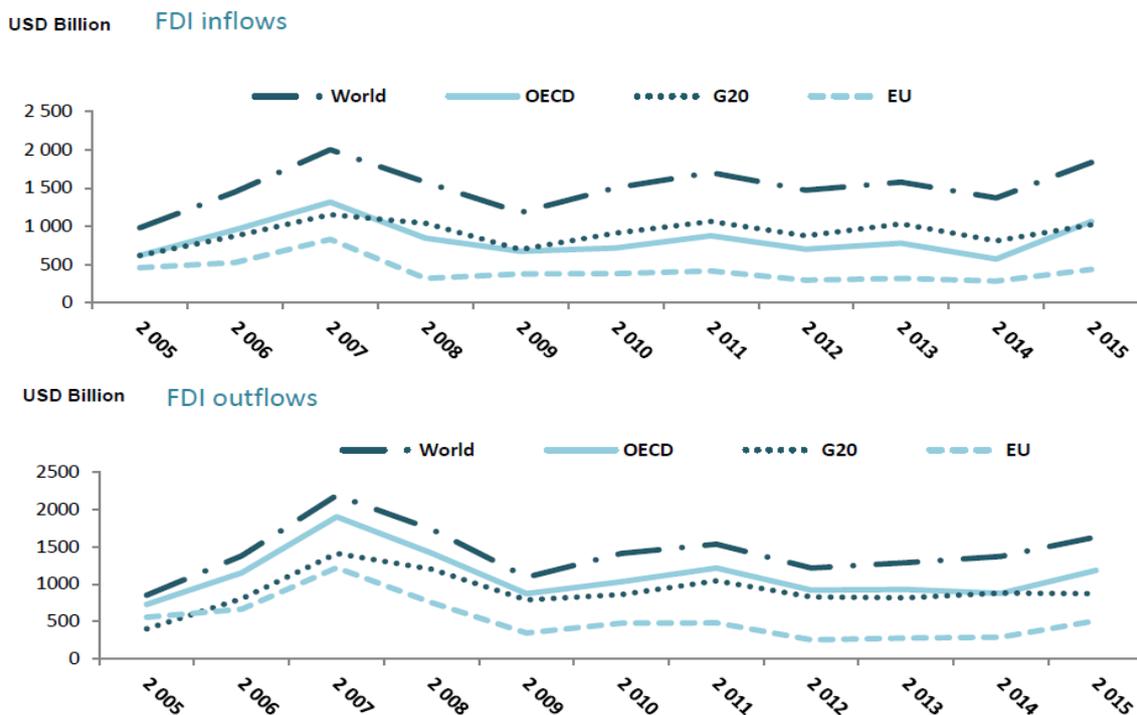
The optimal public policy for state aid or regional aid in the various forms (building infrastructure, promising tax reliefs etc.) are essential according to Combes and Ypersele (2013) and moreover, they point out that public intervention can have an impact in two different dimensions. It can influence the level of agglomeration appealing on dispersion and agglomeration forces. The assumption of an increased supply of local transport infrastructure, schools, health services, etc. in one region would brake dispersion forces leading to increasing agglomeration in that region. Mayer et al. (2011) state "the EU or state or municipal government policy has an impact on the probability that businesses will be located in targeted areas". Moreover, supported areas tend to attract smaller firms, and not the larger ones. Isolated regions are not attractive for the big businesses and the distance makes the programme less efficient. Therefore it is difficult to place significant FDIs to undeveloped areas (high rate of poverty, illiteracy, etc.), each government would plan it though. Subsidies may be the target to a particular, although smaller or larger type of firms. Both Criscuolo et al. (2012) and Mayer et

al. (2011) prove small firms are more responsive to subsidies, which is in coherence with the research knowledge showing large firms can benefit more from economic density making them less willing to move to less dense regions. FDIs flowing to Slovakia confirm it, majority of the significant investments at the public interest are in the areas with high economic density. Significant FDIs would choose the region that is more business friendly environment, of higher density and close to the potential markets. The latest tool of attracting significant FDIs is to acknowledge such investor with the status **in public interest**.

3. Global Foreign Direct Investment

Slovakia similarly other countries of Visegrad Four or other developing countries need FDIs for the restructuralization of their economies. FDIs can accelerate the transition process (Bevan and Estrin, 2004, p.776), increase productivity, encourage research and innovation. In the area of human source management FDIs contribute to the development of managerial skills, support development of domestic companies through subcontracting relationships. Generally speaking, they contribute to a change in the institutional environment (Dunning, 2008, p.178), assist to improve adherence, protection and enforceability of intellectual property rights. These multinational corporations are given preferential treatment and unemployment may rise significantly in those regions with a small FDIs inflow. (Hlavacek, Olsova, 2011, p. 71) and Kajanova (2015). The figure 1 shows FDI flows development in the last decade, years 2005-2015. (OECD, 2016).

Figure 1: FDIs flows in 2005-2015 in milliards of USD.



Source: OECD, 2016

OECD (2016) reported global FDIs growth to the level of \$1.730 billion, by 25% in 2015, the highest value since 2007, the outburst of financial crisis. These results were achieved partially as a consequence of financial and corporate restructuring rather than of new productive

investments. FDI inflows almost doubled comparing to 2014, due to the Irish, Dutch, Swiss and American inflows, investors from these countries also invested out – 35% FDI outflows in OECD countries. A positive sign that the total amount of FDI flows for resident special purpose entities decreased in 2015 by approximately 10% (the highest FDI into SPEs in 2015: 1. Luxembourg, 2. Holland and 3. Hungary). FDI inflows to the G20 increased by 26%, FDI flows to OECD G20 economies grew by 81%, in non-OECD G20 economies FDI outflows from China went up by 53% (to \$188 milliard).

The success of FDI is measured by return on inward FDI by sector, which is an indicator for analysing the company's profitability (considering also industry cyclicality, structural factors, industrial sector's stage of the development). Assessing multinational companies' performance, OECD defines return on FDI as the ratio of income on inward FDI (income on equity, or earnings, interest from debt) over total inward FDI amount in each sector because investors obtain the income on the total amount of investment in a country not only from the latest flows. The highest rates of return on inward FDI (all sectors) in 2014 were in Ireland - 14%, Czech Republic -13%, 10% in Japan and Poland; in the manufacturing sector: Ireland - 25%, Austria -19% and Chile -18%.

3.1 Foreign Direct Investment in the Public Interest in Slovakia

The characteristic feature of foreign direct investments is their classification primarily on the direction of determination –direct investments of residents abroad and investments of non-residents in the reporting economy. The adjudication C-446/04.181 introduces the term „direct investments as investments *of any kind undertaken by natural or legal persons and which serve to establish or maintain lasting and direct links between the persons providing the capital and the undertakings to which that capital is made available in order to carry out an economic activity* (Case C-446/04, ECR 2006 p.I-11753). These statements are significant for the correct implementation of rules of the EU law. Investment environment is influenced by economic factors and limited with domestic legislation and commitments implying from the international treaties. Treaty on functioning the EU (EU, 2008) has extended a common trade EU policy (art.207-208) by which the exclusive EU competence has also been extended with the area of direct foreign investments. The objective of new EU investing policy is to assure legal certainty, competitiveness increase, mercantile affairs revival which lead to the creation and growth of jobs. Slovakia is interested in developing investments and supporting FDI inflows and therefore it makes use of legal instruments originating in the European legislation. From national economy perspective there are investment proposals having status of the investment in the public interest or major investments, which are implemented in Slovakia. “Public interest” can be understood and interpreted as public wealth, public benefit or state's interest. Slovak legislation, i.e. the Constitution of the Slovak Republic defines the concept of the „public interest“ in Articles 20.2 and 20.4 and in Art. 60.1 (Constitution of the SR, 1992). The concept of public interest except from the Constitution of the Slovak Republic is also defined in several legal acts. For instance, the Act n.50/1976 Coll. on territory planning and construction regulation (§108.2.), in the Act n. 543/2002 Coll. on nature and country protection (§ 3.1 and 3.3), in the Act number 357/2004 Coll. on protection of the public interest while public authorities perform their competences. For the purpose of this Act, according to the Art.3.2 the concept of protecting the public interest while public authorities perform their duties, is defined, “*as interest that brings property benefits or other benefits to all citizens or to numerous citizens*”. The Act n.175/1999 Coll. on measures concerning preparation of major investments act, which also amends other legislation relating to the issuance of certification on major,

significant investment for the company. Acknowledging this certification, the investment is given a distinctive status among competitors in the market.

3.1.1 Investment in the Public Interest

Investment in public interest, in compliance with legislation in force, is an investment proposal which is considered significant investment fulfilling following criteria: 1) the minimum capital in the volume of €100 mil. required for implementation of the investment proposal, 2) an investor has to create minimum 300 new working positions, 3) the Slovak government acknowledges the status of investment in public interest to the investing company by issuance of the certificate confirming this status.

If the mentioned criteria are fulfilled, the state has to ensure that following activities are performed: a) expropriation of land and settlement of the ownership matters in order that the construction may start, and b) the road construction. In the discussed context the status of the investment in the public interest is approved if the rate of unemployment in the region exceeds 15% . In general the investment implemented in the public interest is considered a significant investment of national-economic significance and it has full support of Slovak Republic government. It always remains a private investment in spite of gaining the status of the investment in public interest acknowledged by the Slovak government. The status of the investment in the public interest conveys immediacy of the stage and it is judged only in the concrete situation, in the concrete place and in the concrete time. Not each investor acknowledged this status in the past in Slovakia is still economically active nowadays. The company GOLDEN WIRE Ltd., Bánovce nad Bebravou is such an example for which the certificate of the significant investment status in the public interest was issued on June 28, 2000 by the resolution of the Slovak government complying with the Act n.175/1999,§3. The company was liquidated in 2005. (GR 492/2000).

3.1.2 Other Supportive Aid Instruments

Systems of the support for the building industrial parks are instruments to support inflows of FDIs. The Act n.193/2001 Coll. on support of establishing industrial parks with its amendments in force since June 1st, 2001 created legal conditions and criteria of their establishment. The Ministry of Economy submits its proposal about providing resources from the state budget for this purpose, based on which the government of Slovakia makes a decision, this financial assistance is not considered a state aid. Industrial parks create new impulses for the undeveloped and lagging regions. The current legislation forms conditions of bottom-up initiative, towns and villages participate in investments. **The activity of the industrial park results in:** a) enterprise development located in the park, b) development of the region with its villages and towns, c) economic growth of founders and owners of the park, and d) building subcontractors bounds, thus creating opportunities for new business activities. A state subsidy for constructing industrial infrastructure finances industrial park construction, e.g. setting up the industrial park in Lozorno in 2000 and 2001, €18.75 million capital was provided as a subsidy of the Slovak government.

One of the important legal measurements to support and attract FDIs was a complement of the Act n.513/1991 Coll. Commercial Code with the enactment §24 such as „lex specialis“ of commercial law (Peráček, Mittelman, 2015), which enables to create equal conditions for Slovak and foreign investors for the purpose of implementing investment proposal in Slovakia. The state makes an effort of meeting investor's requirements and collaborating with the investor. The distinctive factor also is providing regional investment aid only for the following purposes: a) the subsidy to acquire tangible and intangible assets, b) income tax relief, and c)

allowance for creating working positions. It is stipulated for the recipient in order to keep the investment in the given region during the exercising the state regional aid within minimum 5 taxation periods consecutively, after the period when the investor finished investment project. The recipient of the investment aid has to execute the investment project in such a way that at least 65% of the value of tax deductible expenses must be financed from the owners' resources or using external financing that does not include state aid. The innovative potential of businesses (individuals and organizations) operating in the region is one of the factors of the growth in economic competitiveness in the region and reduction of regional disparities (FIALOVÁ, 2009). Investors come to the host country with their company culture, with new forms of management. Managers were offered opportunity of being active in multinational organizations characteristic with multicultural working environment requiring specific competences – cultural intelligence. (Sulikova, 2011).

4. Current Status on Investment in the Public Interest in Slovakia

Slovak government in compliance with § 3.1 of the Act n. 175/1999 Coll. on certain measurements related to the preparation of the significant investments and amendments of several acts acknowledged the status of the investment in public interest and issued certificates on significant investments for the companies in table 1. (MHSR, 2016).

Table 1: Companies with the status "Investment in the Public Interest"

COMPANY	PLACE & DATE OF STATUS AT PUBLIC INTEREST	
Car – industrial park, Ltd.	Lozorno	
AU OPtronics (Slovakia) Ltd. -1,300 new jobs	Trenčín, €34.9 million	16.12.2009
INA Kysuce, Inc.	Kysucké Nové mesto	
GOLDEN WIRE, Ltd.	Bánovce nad Bebravou – Biskupice	
Ferplast Slovakia, Ltd.	Nesvady	
Jaguar Land Rover Limited, Ltd.	Nitra	14.1.2016
Kechnec, Ltd.,	Žiar nad Hronom	18.2.2005
Plastic Omnium Auto Exteriors, Ltd.	Bratislava	
Plastic Omnium Fuel Systems, Ltd.,	Lozorno	
SAMSUNG Electronics Slovakia Ltd., -760 jobs	Galanta - €19.8 million	18.3.2005
Samsung Electronics LCD Slovakia Ltd.-1200 jobs	Voderady – Trnava - €65 million	
Slovalco, Inc.,	Žiar nad Hronom	
Volkswagen Slovakia Inc.,	Bratislava	31.3.2015
VUMA, Inc.,	Nové Mesto nad Váhom	
Whirlpool Slovakia, Inc.	Bratislava	20.1.2004
Universal Media Corporation (Slovakia), Ltd.	Nové Mesto nad Váhom	20.5.2004
Yazaki Wiring Technologies Slovakia Ltd. 531 direct jobs	Michalovce -tax relief of €7.848 million	22.8.2007

Source: (Min. of Economy, gov.sk 2016)

The companies (table1) with foreigner investor's equity share are recipients of investment stimuli, the most frequently in the form of tax reliefs. INA Kysuce, Inc., was the recipient of the state aid in the form of tax relief by 2010, in the amount of €35.18 million and since 2014, the state aid provided to INA Inc. has been €3.36 million. The company have created 3,747 working positions. (GR 178/2014). The most significant investment in 2015 is the investment in the public interest of the company Jaguar Land Rover (JLR) operating in the automobile sector in the amount of € 1.4 mld. Land for the industrial park has been purchased from its owners. At present infrastructure construction and preparation of a new plant construction are taking place. Citizens owning the property in the neighbouring territory objected that their right for the clean living environment was ignored and that the economic interests of foreign investor

are supported by the Slovak government. The owners of the land properties included in the strategic park brought a legal action before the court in Nitra.

The recipient has to return the financial resources including the interest arisen into the state budget. If acknowledged the status of investment in the public interest the Slovak government is obliged to provide financial resources to the investor.

The implementation of the investment will have a positive effect on the labour market assuming 3000 new jobs creation and at the same time new working position will arise due to the development of new sub-contracts, approximately 2,700. In this context, it is necessary to highlight the fact that this foreign investor is the recipient of regional investment aid in the amount of €129,812,750. (GR 192/2015). According to the official Investment contract (Number of the registration: 821/2015-2050-3200 dated on 11th December 2015) closed among Jaguar Land Rover Ltd., Jaguar Land Rover Slovakia Ltd., the Slovak Republic and the town Nitra, the Slovak Republic is obliged to ensure infrastructure and engineering network. In the contract there are the rights and duties of the contractual parties specified in details, while the commitments of Slovakia and the town Nitra are of the larger extent. The company is acknowledged the status of the investment in the public interest for the period of 7 years. The company obtained privileged positions in the area of tax and customs relations, with a specialized senior contact person in the tax authority in Slovakia due to specific questions as far as VAT is concerned and a specialized senior contact person in the customs authority as far as the customs specific issues are related. Fairly interested is the resolution on collaboration of tax authorities with the company regarding VAT returns without postponement, which is not typical practice policy in Slovakia. The particular feature of this contract is that the foreigner investor will be informed on all changes and amendments in our legislation or about the acceptance of new Act or law which could negatively or unfavourably influence the enterprising in Slovakia. Slovakia is committed to provide such an announcement in the written form, in English or Slovak language. Fairly interesting is the commitment of supporting an increase of the number of civil- engineering and other suitable studying programs at the universities, secondary technical schools or vocational schools that are very important for the automobile industry. At present Volkswagen Inc. is facing this problem because the labour market lacks qualified people in that area. Nitra itself or empowered companies will provide the hiring program of employees and also existing financial tools supporting working mobility will be provided by them. (Gov. SR, 2015).

Benefits for Volkswagen new employees: a) higher salaries (€1800) not included management salaries, b) new employees hired will receive a new bonus of €500, (condition to work for the company at least 1 year), c) transport to the company free – first 6 months.

Benefits for Volkswagen old employees: a) rewarding salary at the anniversary, b) Christmas allowance, c) possibility of buying the company car with 0% interest or a loan of 0% interest, d) bonus if the employee recommends the worker and he accepts the job, e) new transport lines are being planned to be introduced.

5. Conclusion

Investment proposals conducted in Slovakia in the public interest are of national, economic significance, but we cannot state with certainty that the investments of this kind are exclusively investments with positive consequences for Slovak economy. FDI projects in Slovakia have been in compliance with the Slovak legislation so far, has been leading to the economic growth measured by GDP, declining unemployment, creating working jobs and increasing domestic

consumption. The government believes these successful results will be irreversible what would be considered as a successful accomplishment. Company's workers usually earn attractive salaries and are awarded a great deal of employee benefits. Not all projects implemented through FDI capital were successful (e.g. Bavlarske zavody Ruzomberok, takeover to stop the competition). Globalisation may be viewed more negatively as "millions of people who are losing out in a global economy that disrupts traditional economy and weakens the ability of their government to assist them. (Mazur, 2002, 82).

Looking at the business development from the perspective of a) equality and b) justice or fairness of support it would be natural and more fair that if the state supports and provides significant financial aid for the investor of an important investment proposal the state could be given certain percentage equity share with some voting rights in the board of directors of this foreign company.

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GLOBALIZATION - ITS BASICS AND VARIOUS RESULTS

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Abstract: Scientific literature, even that which is based on the economic point of view, is very heterogeneous. Globalization is seen from different perspectives. A final “correct” or “only” true approach cannot be identified. This paper has a focus on the economic perspective which is mainly based not only on changes within societies and growing economies, but also on technical development, which is partially included in this paper as well. A few key factors seem to be the major drivers of the globalization process. It deals with ITC (Information technology and Telecommunication), logistics, political borders and customs. Mainly the first two drivers ITC and logistics have obviously a crucial impact on the growing and ongoing process of globalization. This is combined with various effects not only on participating companies, but also on countries and their politics as well as on people and especially on employees and the comparability of production costs. Scientific literature about globalization is mainly split in two groups: explaining advantages for companies and making life easier for everybody and such explaining disadvantages for employees due to global comparability, reducing social standards, exploitation and labor unions are played against each other. Environmental protection and human rights belong to losers of globalization as well. So this medal has obviously two completely different sides.

Keywords: Globalization, basics, effects, ITC, logistics

JEL-classification: F60, F63, M15

1. Introduction

Globalization is a process of interaction and integration among people, companies, and governments of different nations, a process driven by international trade and investment and aided essentially by information technology and telecommunication (ITC) and logistics. It describes a process of increasing global cross-linkage of economic activities due to mobility of goods and production factors, especially of capital and technical know-how (Schätzl, L., 2000).

This process has various effects on the environment, on culture, on political systems, on economic development of companies and countries, prosperity of individuals, and on human physical well-being in societies around the world. The current trend of globalization of all the economic and social constituents results into an identical approach of the crises that contemporary life has been facing (Betianu, L., et al, 2009).

Globalization is often deeply controversial discussed. Proponents of globalization argue on the one hand that it allows poor countries and their citizens to develop economically and raise their standards of living in a short period of time, while opponents of globalization claim that the creation of an uncontrolled international free market has benefited multinational corporations in the Western world at the expense of local enterprises, local cultures, and

common people. Resistance to globalization has as a result of that, taken shape both at a popular and at a governmental level, as people and governments try to steer this process by managing the flow of capital, labor, goods, and ideas that constitute the current wave of globalization (Levin Institute, 2016). The eastward expansion of the EU has widened the wage gaps between Member States and heightened the risk of social dumping. This came up against strong resistance in some Member States with the target to improve the protection of posted workers (Lalanne, St., 2001).

Since the 1980ies it has happened a strong change within the labor- and business-world, this was before, at least in such a short period of time, unimaginable. There happened a quick change from the computer- and robot-oriented industrial society to information- and knowledge-based society, which is meanwhile called “Fourth Industrial Revolution” (BMBF). By using ITC (information technology and telecommunication) the world shrinks together, so that also based on this fact the term globalization was established. Due to daily worldwide growth of ITC the expression was defined, that space and time melt together. Based on this fact global economic spaces came up (Fuchs, M. & Apfelthaler, G., 2009).

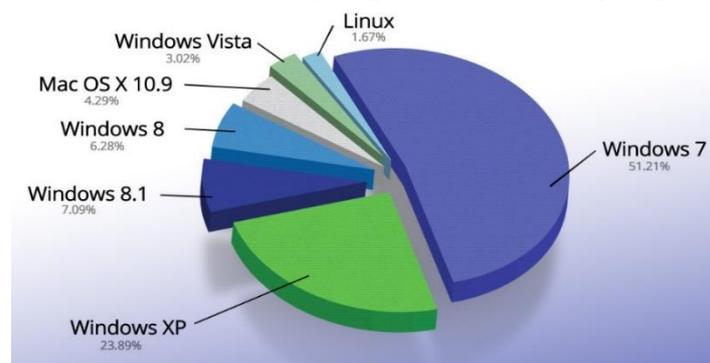
2. General basics of Globalization

2.1. Technical basics

The globalization seems to be based on various technical preconditions. The main technical part is the sector of ITC. ITC has to be understood as voice- and date transmission. “Voice” means the usage of phone, wire-line and wire-less, and to be accessible around the word. Bill Gates, the founder of Microsoft called it the four A’s: anyone, anywhere, anytime and any device. “Data transmission” means mainly the usage of emails and the ability to receive any kind of information via the Internet. And all of that happens within a few seconds and doesn’t need days or even weeks as it did decades before.

Another part of ITC is software. Here has to be stated that nearly any software can run on nearly any computer so far it is installed. The software in the office business is definitely the most used and common one. The various files can be only exchanged beside the users, as there exists more or less a standardization which is based on a de facto monopoly. This kind of monopoly is owned by the US-American company Microsoft with the operating system “Windows” for office software like “Word” (text) or “Excel” (calculation) which is shown in following figure.

Figure 1: Worldwide market share for office software, developed by WinFuture



Source: WinFuture developed by Ströer Digital Media

Due to this standardization all Internet users can exchange data and files and it works in the whole world the same way. And it looks in the whole world same, as it exists in nearly any language and the English version is also automatically included, shown in following figure (addintools).

Figure 2: Example for MS Word in German language



Source: own processing

These parts of ITC together, which includes hard- and software, accessibility for users around the world, easy exchange of any kind of data due to standardization and a reduction of time by power which includes an enhancement of efficiency of the employees by power as well, is the main technical basis for globalization.

The other major technical development has happened in logistics. Of course is logistics also based on ITC, but it is not only. Significant changes have been achieved also by the amount of trucks and by the size of container and freight vessels. This includes also changes in the sea harbors and the complete technology around it with cranes, electricity and infrastructure like space for storage including huge warehouses and technology of storing goods, as well as new motorways and railway tracks (Gienke, E., 2015). 90% of worldwide trade is processed via seas and that means automatically also via harbors. These are like windows of trade and globalization and have a crucial impact on ongoing exchange of goods.

2.2. Political and sociological basics

This whole topic has to be seen in relation of business and private life which is nowadays usually described with the term Work-Life Balance and which tries to describe the balance between business life (job) and private life (family, hobbies, free time). Peter Robert Becker (Work-Life Balance, 2012) refers in his dissertation a few essential influencing factors, which have a crucial impact on people not only in their business, but also in their private life. Thereto matter beside the known socio-economic trends like demographic transition, general value change and the change of the role of women, concrete such which have to be seen in the global relationship like globalization, mechanization, tertiarization, flexibilization and knowledge working. And these trends can cause to psychological disorders. Reasons for that are not the single changes itself, but the cumulative occurrence (many instead a few) and the speed and intensity of changes (Becker, 2012). This all leads to diseases which will be described in chapter 4.

Indicators for globalization are often defined or measured by foreign trade, investments abroad and international capital transfers (Duwendag, D., 2006).

3. Economic results

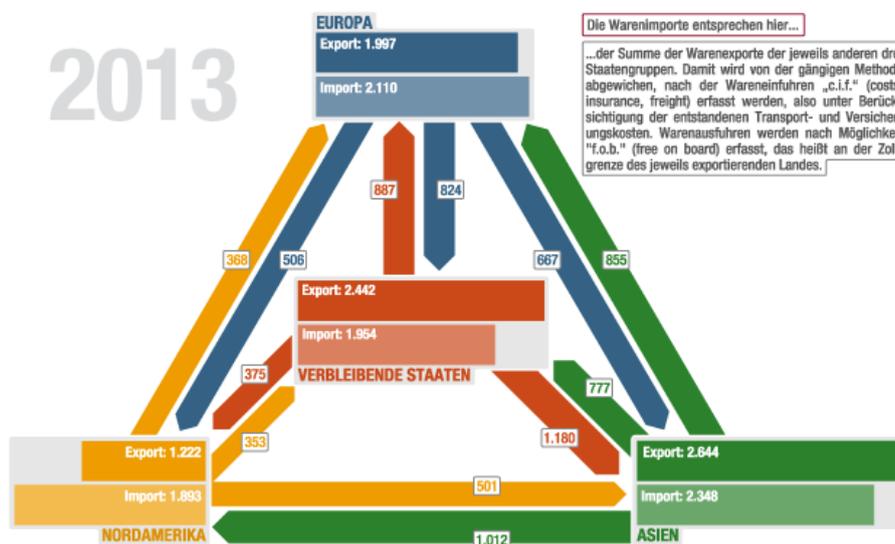
3.1. Economic results for companies

Economic areas exist already since the middle age and a systematic exchange of goods including interdependencies exist since the countries have a legal system. Each functioning constitutional state has usually firstly the intention to achieve economic enhancements for its own people. As second important point for functioning of global economy can be seen the systematic and international division of labor and based on that the international trade, where the interconnection of economic regions for exchanging products the precondition is. This cross-linkage takes place basically via the Information technology and Telecommunication ITC. The target politics which was brought into force as well as the varying cultures try to adapt to the highly industrialized states.

Due to the globalization and the development of MNC arise on international level fusions, relocations and outsourcing between headquarter, mostly in an industrialized country, and the new location, mostly in a developing country (Gablers Wirtschaftslexikon).

The data, also shown in figure 3, prove that it is completely wrong to speak about a worldwide happening globalization. The most important industrial countries (The Group of seven, G7) which are part of the triad, dominate the worldwide exports and imports of goods and services. The biggest 500 multinational companies (MNC) transact more than 1/3 of worldwide trade. The biggest share of turnover generates the 300 biggest MNC in their home region. Nearly 60% of global trade account for intraregional trade in the triad region of world economy (Fuchs & Apfelthaler, 2009).

Figure 3: Flows of commodities



Source: UNCTAD, 2013

Additionally the MNC have split the world into three world regions: AME = The Americas, EMEA = Europe/Middle East/Africa and AP = Asia/Pacific. The reason is based in the easier steering of business via similar time zones, partially about similar culture and an easier accessibility of business partners. The strings behind the scenes are more and more pulled by MNC. Even states with a strong economy are getting more and more into the background. Big MNC have in the meantime partially a higher turnover than the gross national product of small developing countries.

3.2. Economic results for countries

That globalization has as preconditions i. a. the abolition of political borders as well as commercial hurdles or borders. In this context has to be underlined, that it was more or less impossible to find any statements in the scientific literature which were neutral, as they were mostly either only positive (influenced by trade associations) or only negative (influenced by anti-globalists).

Centers are located in highly industrialized countries like North America and Europe, the semi-periphery is build up by the BRICS(S) states (Brazil, Russia, India, China, South Korea and partially even South Africa. The periphery represents the underdeveloped countries, e. g. the 3rd and 4th world, which is applicable for large parts of Africa and parts of Asia (Funder, M. 2011).

Important is to realize that within this triad and only 8% of global population about 53% of the worldwide gross national product is generated. Some economists stand for the thesis that the leading cities of the world (New York City, London and Tokyo) are directly leading the global trade. These financial centers are in direct competition between each other as well (Koch, E., 2014; Handelsblatt 2016).

The intraregional trade is not done by the countries but between the MNC within the triad. They have built up a networking with their suppliers, subcontractors and strategic alliances an impenetrably net for small suppliers. Result: big parts of underdeveloped countries participate only marginal or not at all at growth of global economy. Based on this it has to be stated that the term globalization is at least imprecise.

A central question in the international and comparative political economy literatures on globalization is whether economic integration increases worker insecurity in advanced economies. Previous research has focused on the role of international trade and has failed to produce convincing evidence that such a link exists.

4. Social results

4.1. Social results for employees

The results of globalization for employees can be seen only in relation with the daily used ITC by anybody who needs and/or exchanges any kind of information. The usage of ITC changes the economy and with it as well society. In practically all areas are computer, internet and mobile phones a precondition. Microsoft founder Bill Gates has summarized it with the 4 A's: anyone, anywhere, anytime and any device (Microsoft). Based on this fact people and that means also employees become comparable on global basis. As a consequence employees have to educate themselves on a permanent level as the knowledge base is growing exponentially (Koch, J., Krüger, P., 2004). Due to worldwide comparability the management has to accelerate all internal processes which have a significant influence on daily work for employees. Decisions become especially in listed corporations more and more short term oriented, salaries of top-management grow on a permanent basis, while employees on lower levels get salaries reduced with arguments of international competition and exchangeability. This discrepancy diverges more and more (Holtbrügge, 2010).

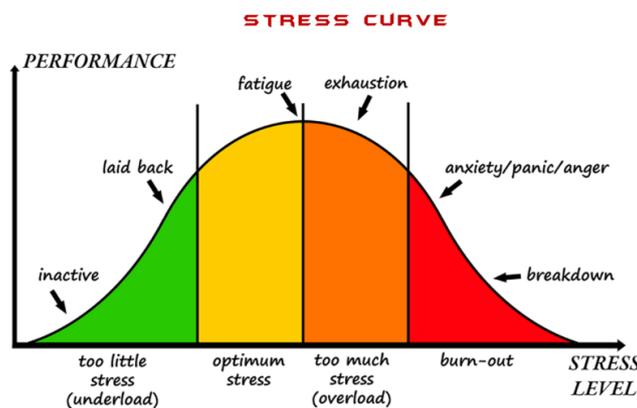
Due to the existing cost pressure the occupations become more demanding. Employees have to fulfill more tasks in a defined time schedule and have to behave multitasking. An increase of efficiency is the expectation of the employer, as otherwise the given tasks wouldn't be done in

time. This causes to a permanent growing intensity and compression of labor. From this follows the pressure to perform and to succeed on all levels. A result of this fact is then the permanent accessibility 24x7 including nights, weekends and vacations for superiors, customers and suppliers. That many so called “young potentials” find it prestigious and evident for their importance makes it only more difficult (Mainka-Riedel, M., 2013).

This means in total that following question has to be asked to solve this challenge: How can managers help employees achieve the right balance between improved productivity and overload (Cowle, Margaret, et al, 2011)?

Dangers for private life are mostly based in the emotional part. Internet addiction, dependency from the own computer, a mixing up of virtual and real world including augmented reality, online friendships, permanent growing stress level and finally a burn-out end very often up in typical business diseases which are physically and/or mentally based (Rüsch, N. et al, 2004). The increasing volume of e-mail and other technologically enabled communications are widely regarded as a growing source of stress in people’s lives. (Barley, St. R., et al, 2011). That this development within the business world does not achieve necessarily the needed result was already found out more than 100 years ago by Yerkes and Dodson. They have scientifically proven that too much stress leads to an overload and the efficiency of the employee starts to decrease (Nonnenmacher, A., 2016).

Figure 4: cognitive capability, Yerkes-Dodson-curve



Source: internet

Work overload is the strongest predictor of full-time employees’ work-life conflict. The work hours, their fit to preferences and others demonstrate small to moderate associations with work-life conflict (Skinner, N., et al, 2008). Occupational burnout or job burnout is characterized by exhaustion, lack of enthusiasm and motivation, feelings of ineffectiveness, and also may have the dimension of frustration or cynicism, and as a result reduced efficacy within the workplace (Ruotsalainen, JH, et al, 2014). This leads to a significant and permanent increase of days of illness, between 2004 and 2011 these days have increased in Germany by a factor of more than 18, which at the end decreases the efficiency of employees and increases the cost of labor (BKK, 2012). In situations where pressures to work longer hours are higher, where employees feel overloaded and where managers place stronger demands on personal time, employees are likely to experience greater dissatisfaction with their jobs, higher stress and fatigue, and greater work-life imbalance (Macky, K. et al, 2008). That this matter is obviously valid around the world confirms a study Jamal, M. (2005), where he validated that stressors like work overload, ambiguity, conflict and resource inadequacy are main variables in Canada and China, where he has made his research.

In total the prospects and perils of linking economic processes of globalization to environmental outcomes are a “must” in future (Bridge, Gavin: in Economic Geography, Volume 78, p. 361-386, 22. Oct. 2015).

4.2. Social results for countries and environment

In total globalization leads i. a. to results that specific valuable images are not only spread, but also made to examples, so that different cultural circles are brought closer to each other. Due to the usage of the ITC also TV has spread around the globe. The concept of man and the world have been changed by the content of TV programs. Anti-globalists denounce the primacy of American produced films within the ITC channels. Critics, mainly from the Islamist milieu, see in this a creeping infiltration with values of the western world which they see for their culture and life style as a real danger. Supporters of globalization on the other hand indicate on positive aspects of the western value system like women’s equality, the legal system and regarding religious matters. Especially in African or Muslim oriented societies where patriarchy exists, these values could achieve higher degrees of freedom and lead by this to a higher living standard.

Environmental policy is an example of a government activity influencing the marginal productivity of capital. It has two effects influencing the companies: higher production costs by taking care about environmental needs and a higher living standard for employees due to a clean environment (Siebert, H., 2007).

In general it can be stated that there is needed some workable-trade-off between economic growth and environmental protection. A balance needs to be struck (Fischer, Thomas C., 2009). Globalization seems to have a crucial impact on environment as the protection of it creates costs which have to be paid either by the state or the MNC. If the protection is not done it is paid finally by the inhabitants, flora and fauna, the human made climate change etc.

5. Conclusion

What are the main points which have to be realized as given part of worldwide globalization? There are three main parties involved:

- Countries which made it possible by opening borders and reducing customs,
- Multi-National Corporations (MNC) which are able by their size and financial basis to act appropriately within the whole business world and
- Employees who are confronted with a global competition on the labor market.

As many things a medal has two sides. Due to very different preconditions and approaches to this challenge, globalization produces therefore winners and losers. Mainly industrialized countries which are the homes of some or many MNC belong as well to the winners, as the MNC which act as global players and see the whole world as one market, just split into three world regions. This includes their management who benefits from the permanent growing global sales and due to that on permanent growing bonuses. Companies which are mainly focused on their home market will have difficulties to survive as well as employees in a free economy who don’t realize that competition for labor is located worldwide. This matter of fact increases the pressure for performance including all negative side-effects like burnout and diseases. Of course there is a fourth side which was not investigated in this paper: consumers who gain from growing living standard from different points of view. A final statement cannot be given as globalization has too many sides to look for and to evaluate. Nevertheless it has to

be realized that positive as well as negative sides do exist and influence the life of human mankind.

Abbreviation

e. g. – example given

i. a. – inter alia

ITC – Information Technology and Telecommunication

MNC – Multi-National Corporation

TV – Television

UNCTAD – United Nations Conference on Trade and Development

US(A) – United States (of America)

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SAFETY OF GLOBALIZED SOCIETY AND ITS ELEMENTS

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Abstract. Safety (and also danger) is very typical for human. It is one of the main needs of people. It is a condition of world evolution and of preserving life. Human always had to watch their safety whatever their activities were. Safety is hard to define and has a rich history. Safety in history was different from what it is today when the technology is so developed. Safety has its common and also specific content; it is objective and also subjective. Safety is very a changeable hybrid of commonness and also specific. Safety is when risks and threats are at the lowest possible level. We can get safety in many different connotations. We can divide it from a lot of different point of views. As a main differentiation we can take personal and also interpersonal safety, health, food, raw material, energetic, economic, finance, politics, culture, law, environmental, interstate, military cybernetics and also management. Safety has very important integration and also disintegration character, it is highly complex and also not complex. International safety has a close relationship to the power of man. Danger is a contrary phenomenon. It is harmful for human and globalized society, it threatens evolution of society and can also threaten its existence. It is sometimes difficult to differentiate relationships between safety and danger, especially in nowadays globalized world.

Keywords: safety, danger, society, economics, relationship

JEL Classification: H0, H7, O0, R0, Z0

1. The essence and general manifestations of global security, international institutions

The concept of safety is very extensive and also difficult as far as its content and scope are concerned. The word security and its derivatives are used frequently. Security can be understood as a system as well as a process. If we perceive security as a system, then it has many subsystems and elements, whose variety of behavior is enormously high, changeable, unrecognizable, immeasurable and also unmanaged. The process approach to understanding security is, similarly to the system approach, hardly recognizable and controllable.

In connection with international security, so called Euro-Atlantic values or the most fundamental European values in case of the European Union, are often heard of. These values are formulated very vaguely and do not provide criterion options. They are often misused to justify various promoted trends, which, in fact, are not values. Their consequences are dangerous (war adventures, financial operations, migration and sanctions against countries which have different values than ours). Why do we impose our values to others? What makes us do so? Law of force? Law of unreason?

1.1 Safety development

The development of the society is becoming more complicated as a consequence of the growth in the number of its elements and of the rapid and unexpected changes in behavior. This leads to chaos and thus to danger. Society and the individual try to have the highest degree of safe existence. In contrast, there are trends of other structures and people to disturb this security. These processes accompanied, still accompany and will probably accompany the mankind throughout their existence (Zeleny, March 2012), (Nedeliakova, Sekulova, Nedeliak & Majercak, 2014), (Jackova, 2017).

There is a lot of knowledge about man and his/her world, about his/her historical development, both in written or oral form, shared by generations, and also by archaeological discoveries. A lot of books and documents that show the past development and its causes including the security issues have been written. Currently living people also have personal experience from the dangerous things, occurrences and processes they have gone through. So there are lots of sources which people can learn from, nevertheless, man and the society are incorrigible. It is a mystery why this is still so (Sukalova & Ceniga, 2015), (Chlebkova, Misankova & Kramarova, 2015).

Alas, a characteristic feature of human thinking and acting is reluctance or inability to learn from this information, to use it for making own decisions and thus as little as possible disturb or even increase their own security. This is ranked among the constantly decreasing possibility of predicting the future and so our decision making, despite the ever-increasing amount of methods and tools for decision support, is always more and more indeterminate with possible harmful consequences. To this, selfishness, carelessness, loss of self-preservation instinct, aversion to objective thinking, ideologically harmful seeing of the world, envy, hatred, thirst for money, thoughtlessness, etc. must be added.

1.2 Security and the United Nations (UN)

The world in the 20th century experienced two world wars that were a radical consequence of poor decision making, poor peace solution, and unmanaged security. After the World War II the United Nations Organization was established. At least briefly to its mission:

The goal and mission of the United Nations is to maintain peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace; to develop friendly relationships among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace; to achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex and religion; to be a center for harmonizing the actions of nations in the attainment of these common ends.

The United Nations included several principles in its constitutive document, to which mainly belong:

1. The UN is based on the principle of the sovereign equality of all its Members.

2. All Members shall fulfil in good faith the obligations assumed in accordance with this charter.
3. All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.
4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the United Nations (Charter of the UN, 1945).

1.3 Security and the North Atlantic Treaty Organization (NATO)

The North Atlantic Treaty Organization was founded in 1949 as a response to the evolving international situation. The North Atlantic Treaty gave rise to an alliance of independent countries with the same interest to maintain peace and defend their freedom through political solidarity and adequate military forces serving to deter and, if necessary, to prevent all forms of aggression against them. The Alliance created under Article 51 of the UN Charter, which affirms the inherent right of individual or collective self-defense, is a community of independent states united in their determination to preserve their security through mutual guarantees and stable relations with other countries.

NATO also has its ambitious goals, which are expressed in the founding document. For example Article 1 declares: The Parties undertake, as set forth in the Charter of the United Nations, to settle any international dispute in which they may be involved by peaceful means in such a manner that international peace and security and justice are not endangered, and to refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations. Article 2 states: The Parties will contribute toward the further development of peaceful and friendly international relations by strengthening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them (Washington Treaty, 1949).

It can be stated that the two leading world organizations have, in noble words, formulated their mission and goals. The reality is different, though. On the one hand, they manage to contribute to the international cooperation and therefore to the international security, on the other hand, they disturb the security. There are open or hidden disputes between NATO countries. There are almost hostile relations between two Members, Greece and Turkey. How does the Alliance want to deal with the relations in the world when it has troubles dealing with the relations within itself? It is not a secret that the USA plays the main role and it exercises its power according to its abilities. Brzezinski concisely writes about the role of the USA in the world in his book called *The Choice: Global Domination or Global Leadership* (Brzezinski, 2004). There are more and more voices against the activities of NATO and the USA not only in the world but also within the Alliance Members.

1.4 Security and the European Union (EU)

The European Union also has its mission and goals, which are managed to be met with mixed success. This union of countries achieved and still achieves undoubted success. Alas, this organization – and its Members – has been getting into troubles in recent years. Powerful economic and political elites do not fulfil their mission for the benefit of citizens of the European Union. People increasingly distrust the mission of the European Union and often arrogant behavior of their leaders and officials. However, this also applies to the behavior of

the leaders in individual member states. A certain signal of problems is a referendum on leaving the European Union, which took place in the UK. A narrow vote is problematic and worrying for the future.

Further development of the European Union is monitored with concern. Its internal problems include functioning of the European Union as an institution. Ineffective economic and social policy; financial flows – companies' evasion to tax havens; increase of social inequalities between countries and also between population groups; Germany's evident effort to play a leading role in the Union; growing distrust of citizens and, associated with it, a radicalization of forces of various types in particular countries. Is it the inability of senior officials or even an intention? It is not just about its internal problems. Its functioning is and will be influenced by international contexts outside its borders. These dangerous factors include above all a persistent and threatening further financial crisis; a tense situation in the east of Ukraine and development within the country; issues connected with the annexation of Crimea; NATO expansion to Russia's borders; war conflicts in Afghanistan, Iraq, Libya, Syria; international terrorism and its causes in particular.

If Europe and its individual countries want to survive, close cooperation and mutual respect are needed. Otherwise, the end of Europe in all areas is likely to come.

1.5 Factors decreasing security

A number of factors influence security and insecurity. Their importance differs. Some of them seem to be less likely or insignificant, but they can change their weight and significance when connected with other factors. Consequences of the influences of these factors are sometimes unexpected and it must be said that, especially in the pursuit of profit (and reducing costs), selfishly and carelessly expected. It also may involve only some countries.

Factors that may have a negative effect or reduce potential safety, include in particular management of processes inadequate to their needs as the main problem of today with high potential hazard! Other factors are the following (Novák, 2011):

- Difficult conditions for decision-making, difficult to make predictions about the future
- Disruption of the function and the role of money and their impact on human life and society
- Disruption of conditions for physical, mental and social health, an increasing number of dangerous diseases
- Negative impact of engineering and technology on human life, health, property and environment, technological hazards
- Pension security and its prospects
- Growing differences in living standards between individuals, families and regions
- Growing differences between need and consumption, waste of resources
- Prices of goods and services not corresponding to their importance for man and society
- Role and behavior of Churches
- Behavior and conduct of political parties and politicians, other public figures, their incorrectness, aggression and show of force
- Non-respecting of laws of evolution and historic context of past processes
- Role of multinational capital and its organizations – banks, companies, audit companies
- Declining role of state not for the benefit of society, but for the benefit of multinational companies

- Declining water and soil resources, biodiversity disruption, air pollution
- Declining quality of production of goods and services
- Role of states' power and their means of power against other, less powerful states
- Degraded democracy and freedom
- Degraded human dignity, quality of life
- Degraded culture and failure of multiculturalism
- Aggression and intentional manipulation of the media and their effect on the human psyche
- Decreasing number of people having a job with all the consequences for their living
- Problems with falling into debt of states, families and individuals
- Growing individualism, inability of interpersonal communication, loneliness, feelings of worthlessness, incompetence and hopelessness, loss of faith in positive development
- Increasing vandalism
- Growing hatred and violence of various type between people and states, terrorism and cyberterrorism
- Growing quantity and effects of various types of weapons, their possible misuse
- Lack of sources for security and its management, dealing with consequences rather than prevention of causes
- Redistribution of influence of power, capital, and civilization clashes

2. Some areas of security

There are numerous security areas. They are more or less closely related and influence each other. The following text outlines just selected areas of security.

2.1 Economic security

Economy certainly creates material conditions for the existence of society. However, it is not, itself, the only resource and also, it is not a panacea. High values of life include also health, friendship, good interpersonal relationships, the possibility of people to decide relatively independently, healthy environment, etc.

In 2007 and 2008, the world experienced crisis (we can say collapse) of the banking system. Nowadays, people are openly talking about another possible similar collapse. The banking sector (not only) is being destroyed by price bubbles and using money for speculative purposes. This raises a question – is it a reflection of good or bad management, or an intention, or is it an inevitable consequence of the development of the present-day world economy?

The term sustainable development was used before. Its content and scope was, however, vague and disputable. There is a pursuit of endless economic growth, which is a very misguided effort. It is not possible to endlessly increase consumption and thus stimulate economy. There is a contradiction between what we really need in the material sphere and what we consume. The resources of our planet are not unlimited and certain indications of collapse of the planet are already appearing (Martinez & Jaime, 2016, (Natroshvili, 2016).

In September 2015 (Zelený, 2015), the economist professor Zelený gave the daily Mladá fronta an interview. Besides other things, he says in this interview that the world as we know it today ends. Companies and countries cease to suffice globalization and all economic sectors – agriculture, industry, services, and the state – have already been exhausted. Passing from the global to the local society will start, which will also bring greater pressure on regional

autonomy. For the first time in its history, humankind got into a point where employment in one of the traditional sectors cannot be guaranteed. In modern history, we have gone through transitions between four sectors – from agriculture to industry, from industry to services, from services to the state. All these sectors were, from the point of view of employment, taken and there is no fifth sector in the economy. However, today's turning point does not necessarily mean that the economy will collapse. It will just change, move from the global to the local. Individual regions will try to become independent. Large multinational companies that are constantly eating each other and connecting to gain more power over rival companies, go against nature. They did not understand that globalization reached its peak and it is not endlessly possible. It is definitely an interesting idea (Ponisciakova, 2015).

2.2 Food safety

Food safety is an important factor of safety in general. Quality food is a must for human life. Man, then, is a crucial element of the safety system and the system of hazard. The concept of food safety can be understood in two ways. In the broader sense as part of a necessary condition for the existence of mankind, territories and states and hence their safety. In the strict sense, as safety for man.

Man needs some basic components for his/her life, such as food, water, air. No one could live without them. We can say that it is not a problem for so called developed countries to provide enough food for most of their inhabitants. Development shows that this may not be forever. Somehow, we do not want to realize that and we waste food as well as water. We are careless towards air and soil which is irreplaceable and non-renewable. Agriculture is very often on the periphery of our attention, especially in the Czech Republic where it is not controlled almost at all. And yet it is very important, vital, for the future of human society (Gohar & Cashman, September 2016).

Water is a critical fluid for human life and it is provided by nature in various configurations, availability, quantity and quality. The problem of quality of both potable and non-potable water is becoming, though, more complex and urgent. On the one hand, we suffer from a lack of water; on the other hand the amount of floods, especially so called flash floods which are almost unpredictable, is increasing (JayRussel & Doyle, 2016).

The problem of food is also complicated. Man, like any other animal, does not have the ability to create building blocks for his/her body directly from minerals in the soil and from gases in the air, they cannot draw energy for vital functions directly from the sunlight as plants can, they cannot decompose dead organic material into minerals and thus return them back to the ecosystems. Man thus depends on fauna and flora food sources and their potential or necessary treatment. The initial optimism about the relative abundance of food for the population is changing. A number of limits restricting food safety appear (Aremis, Scott & Osburn, 2016).

2.3 State security and Defense

Europe, except the armed conflict in the area of former Yugoslavia in the last decade of the last century, has been without wars since 1945. This period is long in the history of Europe. Likewise, the world did not go through the feared WWII using weapons of mass destruction – nuclear, chemical and biological weapons. However, it does not mean that the danger of war passed, as many people think. The means and technologies of destruction can, with their dynamism, get out of political control, and put humanity into danger.

In recent years, opinions that war is possible have been published. It may be the intention of military-industrial complex and thus the increase of development and production of weapons and trade with them (and increase of profit of arms companies); perhaps this danger takes on a broader, real meaning. Both can be admitted. It is very difficult to foresee development. Today's world is less stable and the development can, from various reasons, change into violent conflict and grow into war. Not even considerable global and globalized connection of world and local structures of various types (political, economic, material, financial, social, religious, etc.) can prevent it.

NATO is expanding more and more and it arouses adverse reactions in the world. In addition to terrorism, which affects our lives more and more and makes us helpless, development concerning the relations between Russia – NATO is dangerous. A lot of justifications and lies on both sides are officially used. Russia annexed Crimea, which was not a good deed from the point of view of international law, but it stopped the efforts to build a US military base there. Establishing NATO military bases in Poland, Estonia, Lithuania and Latvia also does not contribute to the trust and security of the world. The danger of return of the Cold War with the possibility of turning into the hot war is becoming topical. Is the mankind aware of it? There are countries that are unable to provide sufficient food supplies for their inhabitants but they buy weapons at the same time! The number of states which want to have nuclear weapons in their armory is increasing. Cui bono?

3. Conclusion

This paper outlines some problems with the security of society and individuals. It mentions security as an integral condition of existence of the world. Attention is also paid to major global organizations in relation to security. It outlines factors that influence security and act in their comprehensiveness and complexity and which are determinants of development. It emphasizes the decisive influence of man as subject and object of the management and the critical resource and potential of the management and security. The aforementioned issues are very complicated and multi-layered. They raise a lot of questions and few answers. They require complex and timely solutions.

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THE EFFECTIVE MANAGEMENT OF THE CONSTRUCTION COMPLEX OF THE REGION IN THE GLOBALIZATION CONDITIONS

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Abstract. The social and economic transformations have affected an investment and construction complex the state of which influence on operability of all economic sectors and social and economic development of regions in the conditions of globalization. Features of regional investment policy suggest the need for an evaluation of management efficiency of a construction industry that has caused relevance of this work. The authors relied on the works of foreign and Russian scientists: Asaul A.N., Vasilyev V.M., Buzyrev V.V., Porter M., Panibratov Yu. P. and others. The purpose of this research is the development of theoretical and methodical bases of increasing management effectiveness of the region's investment and construction complex. According to the purpose the following tasks have been solved: the condition of an investment and construction complex of the Volgograd region and its role in region economy is researched, the constraining reasons of its development are established; the efficiency evaluation of management of a regional construction complex is carried out. The subjects of the research are theoretical and methodical questions of effective management of functioning of a regional investment and construction complex in the conditions of globalization. The object is a regional construction complex. The methodological basis of the research is based on complex and system approaches with the use of methods of synthesis, the logical and economic analysis. The conclusion: these approaches and methods of the model and the recommendations can be used by government at the state level, in case of acceptance of management decisions.

Keywords: efficiency, management, competitiveness, a construction complex, a region

JEL Classification: O12, O18, P25, R58.

1. Peculiar features of management of the regional construction industry in the context of globalization

The functioning of the Russian economy in the context of globalization has had an impact on the investment and construction sector. (Jonkers & Cruz-Castro, 2013) Its condition has a serious influence on the work of all sectors of the economy and the socio-economic development of regions.

The most effective control over the entire construction complex potential of the region in the context of globalization is possible only through an integrated approach to the process of its formation and development. The state takes control over economic processes in construction at

the regional level. Therefore it is necessary to hold a detailed study of regional construction infrastructure and investment activity of construction companies, control mechanisms, as well as the working out of a strategy of their development, taking into account the current trends of globalization and diversification.

A typical region of southern Russia is the Volgograd region. Stabilization trends are not of systemic, integrated nature. Their sustainability and irreversibility are largely dependent on the general economic situation prevailing in the economy. Increased complexity and instability of economic space in modern conditions leads to the fact that the standard types of adaptive behavior of construction companies and processes of change management are becoming less effective. (Belyaev & Sokolova, 2014) The latter is accompanied by a loss of capacity of development and operation of enterprises. In this regard, there is a need for a fresh look at the problem of interaction between construction companies and the environment from the standpoint of the processes of adaptation and self-organization. (Swinerd & Mcnaught, 2015)

Improving governance mechanisms of regional investment-construction complex in the context of globalization requires the development of new principle approaches to the formation of a conception of a complex management and search of effective forms of interaction of subjects of a complex among themselves and between an enterprise and other industries and complexes of the region's economy. Solving these problems is of practical importance and undeniable urgency.

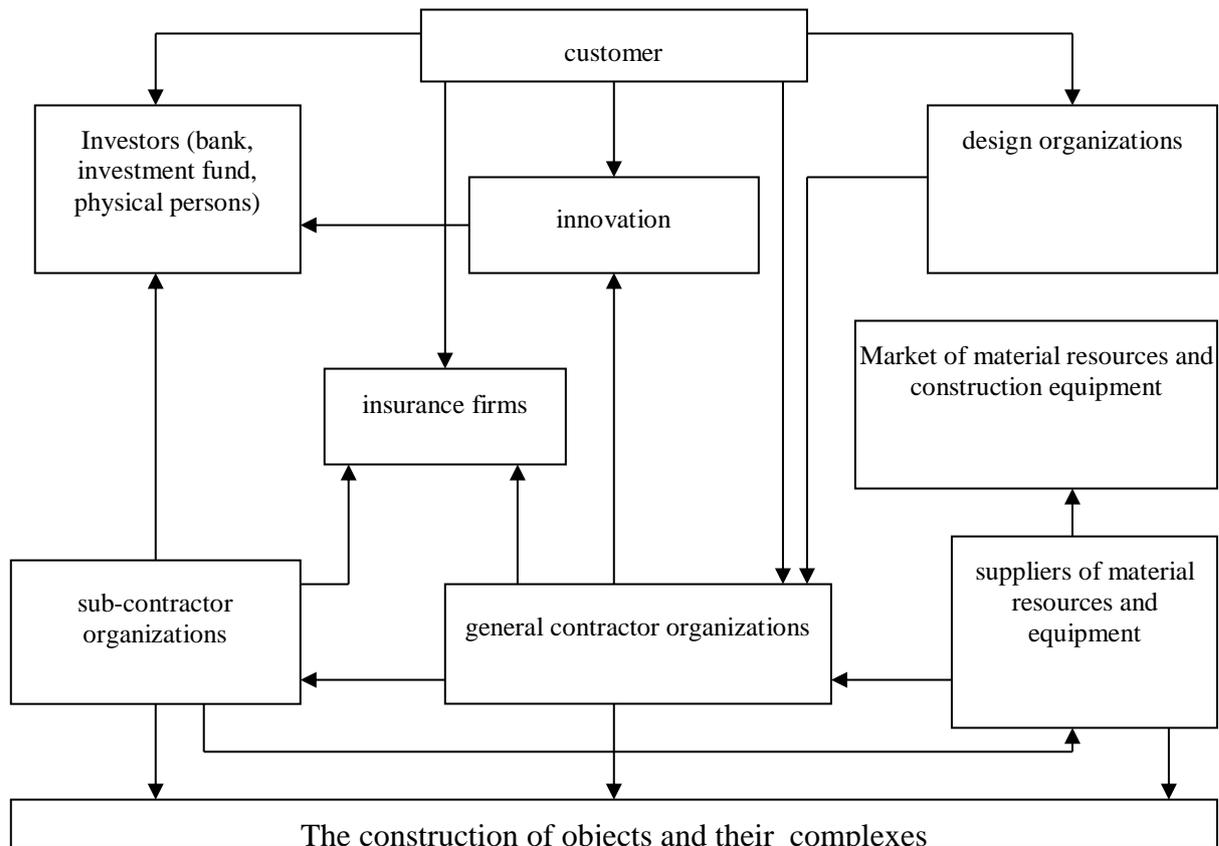
1.1. State of investment-construction complex of the Volgograd region

To ensure the development and stable functioning of the construction complex in the context of globalization requires reorganization of the existing system in which priority control areas should be identified. The leading role of the construction complex in achieving the strategic objectives of the development of society is determined by the fact that the end results are achieved through the implementation of investment programs and projects both at the federal and regional level. (Novikova et al., 2013) This is a sine qua non for improving the efficiency of the construction complex, based on the most efficient use of investment resources, their direction into programs and projects to get the greatest economic and social results, as well as high operational profitability of the constructed objects. (Martin et al., 2016)

In general, the implementation of investment processes in the construction industry is affected by certain environmental conditions such as political (legislative), economic, natural and social environment.

The general scheme of interaction between the main participants of investment processes in the regional building complex is presented in Figure 1.

Figure 1. Interaction of the main participants of investment processes in the regional construction complex



Source: developed by the author

A variety of institutional relations regarding the management of regional construction complex is connected with the search of a rational combination of the interests of all participants in the investment process. (Lupton & Beamish, 2014)

The study of the investment- construction complex within a system approach made it possible to determine what occupies a central place in the national economy system.

The main problem, or the restriction of the increasing pace of construction lies in poorly developed public utilities infrastructure, that is, the lack of facilities for water supply, sewerage, electricity and so on. In addition, a big problem is the presence of large bureaucratic barriers in the allotment of land for the construction and coordination of the project. For example, the timing of the construction coordination takes from six months to 2 years. The increase in the volume of construction will require additional investments into the development of building materials, including cement and others. Table 1 provides an assessment of the factors limiting the activity of construction companies of the Volgograd region.

Table 1. Evaluation of factors limiting the activity of construction companies of the Volgograd region (share in% of the total number of construction companies)

Factor	Assessment		
	2013	2014	2015
A high interest rate of commercial loans	24	26	29
Lack of skilled workers	23	18	30
Competition from other construction companies	38	31	44
The lack of orders for work	16	29	42
The high cost of materials, structures and products	38	45	54
Insolvency of customers	22	23	30
The high level of taxes	31	37	32

Source: developed by the author

The study of indices of performance of construction companies led to the conclusion that the main production potential of the regional complex has been preserved, but the industry is in a difficult position. When the number of orders is decreasing, the competition among firms is increasing. Such factors as the high cost of materials and customer insolvency are also increasing. One way to overcome this situation is to develop new approaches to manage companies of the regional construction industry. (Novikova, 2004)

1.2. The effectiveness of management of regional investment-construction complex

In the conditions of globalization the most important task for the construction complex is becoming the formation of such a branch control system, which would be focused on overcoming the recession of the construction production and satisfying social needs of the population with the final product and the services of the industry. The implementation of this task should be carried out on the basis of the system of current and future objectives, priorities and progressive organizational controls of the building complex. The ability to perform this task depends on the degree of efficiency of the control of the complex that is multifunctional and dependent on a number of factors. (Alvarez & Marin, 2013), (Antonelli & Fassio, 2015)

In the context of globalization, the task of attracting investment and enhancing the investment activity of the enterprises of a building complex cannot be resolved only through public investment, especially against the background of continuously decreasing size of the investment budget. (Nishibe, 2015) In this connection there is a problem to attract other sources of financing. To overcome the tendency of decline in production will require substantial investments, which now can be provided only by private investors who are able to adapt successfully to the functioning of the economy in terms of globalization. (Motohashi, 2015), (Neto & Veiga, 2013) Consequently, in this regard, to implement major investment projects in the construction industry in terms of the direct regulation of the activity of the building complex there is an objective need for new approaches in the regulation of investment sphere and creation of a favorable investment climate.

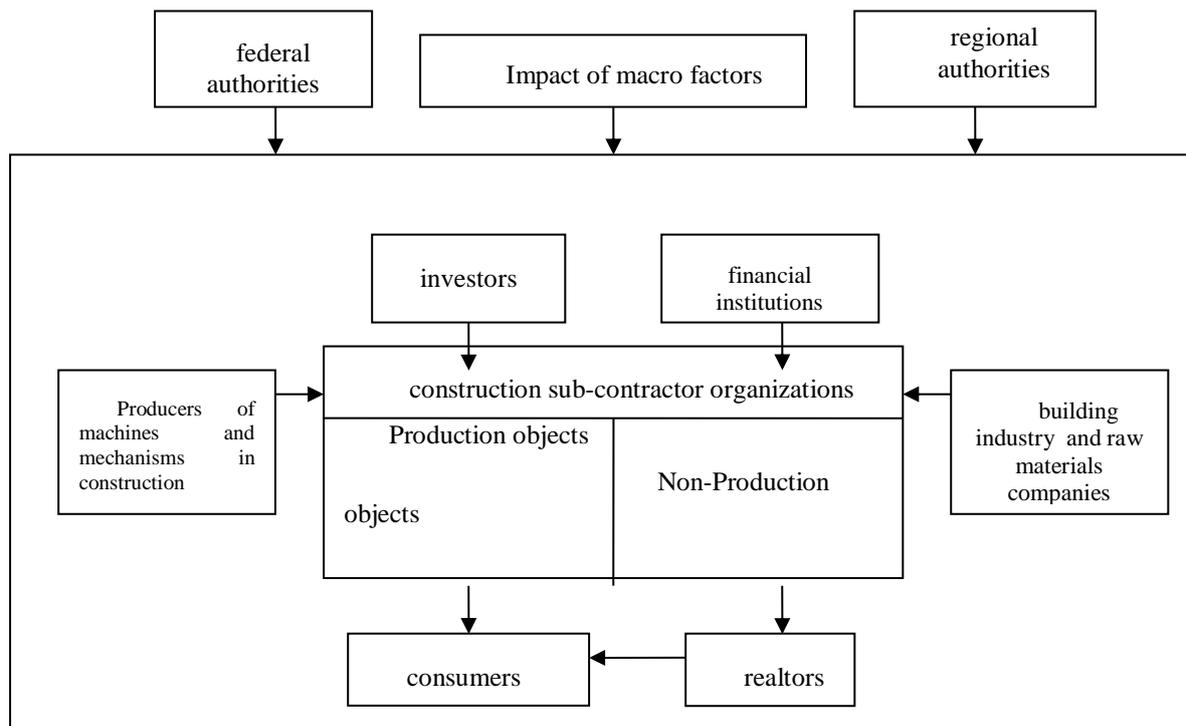
Regional building complex is a combination of manufacturing and non-manufacturing sectors, which are characterized by close stable economic, organizational, technical and technological links and aimed at one end result that is the creation of construction products, i.e. maintenance of production of the main foundations of the national economy.

The effectiveness of the investment process management in the region is determined by the primary structure of the regional building complex itself, the composition and interaction of its elements. The building complex is transformed into the investment and construction one,

reflecting the interaction among entities that satisfy their own interests through participation in various investment programs and projects.

The composition, structure and relationship of the test units of regional investment-building complex of the Volgograd region are presented in Figure 1.

Figure 2. Structure and relationship of links of a regional investment-building complex of the Volgograd region



Source: developed by the author

Effective management is ensured by the substantiation of a choice of optimum economic, organizational and technical decisions based on complete, accurate and timely information about the internal state of the system. (Shibeika & Harty, 2015) When managing the investment-building complex it is necessary to achieve maximum compliance of the object and the subject of management and, as a consequence, improve the efficiency of building production. (Morrison & Cusmano, 2015), (Temiz et al., 2016)

In the context of globalization sustainable operation and development of investment and construction complex as a complex economic system depends entirely not only on internal factors, but also on certain environmental factors with which the building complex enterprises actively interact.

The main task of the regional management body over the construction complex in conditions of globalization is creating most favorable environment to the development and functioning of the regional construction markets, including the real estate market based on the consideration of regional differences: demographic, social, economic and environmental. As well as an active influence on the formation of industrial structure and infrastructure of regional management over the building complex of the region; an active urban policy in the Volgograd region; the creation of favorable conditions for the formation of a regional building complex, its composition and structure; active formation of an investment policy in the region.

We have developed a governance mechanism for regional investment and construction complex of the Volgograd region, which principles, forms and methods, and conditions are presented in Table 2.

Table 2. The mechanism of state regulation of activities of the regional investment-building complex

State regulation of activities of regional investment-building complex			
Principles	Methods	Terms	Forms
System character	Prediction	Monetary policy	Reforming
Complexity	Programming	Tax policy	Rreorganization
Hierarchy	Indicative planning	Industrial policy	Privatization
Selectivity continuity	Monitoring	Investment policy	Restructuring
Prospects	The criterion evaluation	Pricing policy	Control
A legal principle		Innovation policy	Stimulation
Necessity		Social policy	Reconstruction
Efficiency			

Source: developed by the author

The mechanism is based on the principles of state regulation of the construction sector and there are formulated conditions which will lead to the achievement of the following objectives:

- The effective functioning of a building complex in modern conditions, provided by system of state regulation of the construction complex activity in market conditions;
- Establishing general principles of the organization of the management system of the building complex at the federal and regional levels;
- Improving the legislative and regulatory framework of construction, taking into account specific character of the industry;
- Increasing the efficiency of government influence on investment and construction activity;
- Implementing selective policy in relation to the development of organizational forms and management structures of the construction;
- Preserving technology and business integrity of production complexes in the implementation of the privatization and restructuring of state and municipal enterprises and organizations of the building complex.

According to the author, it is advisable to carry out the direct state regulation only in the budget funding and to focus indirect state regulation in three main areas:

- Development of new mechanisms of the economic impact on the activities of construction companies;
- Structural restructuring by further reforming of the enterprises of the building complex;
- Strengthening of the state control and regulation in the public sector.

In the context of globalization, the task of attracting investment and enhancing the investment activity of the enterprises of a building complex cannot be resolved only through public investment, especially against the background of continuously decreasing size of the investment budget. In this connection there is a problem to attract other sources of financing. (Bannò et al., 2013)

To overcome the tendency of decline in production they require substantial investments, which now can be provided only by private investors who are able to adapt successfully to the market. Consequently, in this regard, for the implementation of major investment projects in the construction industry in terms of the direct regulation of the activity of the building complex

there is an objective need to introduce a fundamentally new tools of state regulation of investment sphere and creation of a favorable investment climate.

The investigations led to the conclusion that the formation of the mechanism of regulation of economic processes is only possible with the participation of state and non-regulated market in the context of globalization does not solve many of the economic and socio-economic problems of the state and society.

2. Conclusion

The proposed approaches, methods and recommendations can contribute to the development and adoption of rational management decisions at the regional level of investment and construction complex and can be used in the formation of regional investment programs, as well as in the practice of governments, which will increase the efficiency of management of regional investment-building complex.

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INVESTMENT IN GLOBAL ENVIRONMENT

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Abstract. The article deals investment in selected stocks on world financial market with the aid of globalization tools. The aim of the article is to point out investment possibilities and compiling global portfolios of stock titles in current international market environment. Although the composition of investment leads to a reduction of risk, the main problems of compiling such portfolios are various risks resulting from international market environment, f.e: stock risk, exchange risk, operational risk and legal risk. An investor who decides for global investment on foreign markets has to consider a number of factors that can both positively and negatively influent his investment intents. Priority benefit of investment in global environment is that an investor trading securities can realize his investment intents through his own information technology with using of a trading platform provided by a licensed trader if decides to trade from home. This investor can also decide what kind of service he will prefer. There are three possibilites; full, discount and on-line service. The full service is the most expensive option because the bussiness is pursued by a professional trader who also provides advice, consultation and follows the investor's instructions. Discount service is cheaper than full but more expensive than on-line. The investor instructs his trader without any consulting support. On-line service is the cheapest but the riskiest option at the same time because the investor does his bussiness without any help of a professional trader.

Keywords: globalization, investor, portfolio, stocks

JEL Classification: G10, G11, G15

1. Introduction

V dnešní době se vlivem globalizačních nástrojů velice rozvinul finanční sektor, který nabízí profesionálním i neprofesionálním investorům široké možnosti na poli mezinárodních investic. V současné době se rozšířily investorům investiční příležitosti hlavně u investičních finančních nástrojů, které jsou v dematerializované podobě. To se projevuje v jejich široké nabídce co do jejich počtu bez ohledu na geografickou vzdálenost, která není žádnou překážkou pro investiční záměry díky sofistikovaným informačním technologiím, a to hlavně za pomoci internetu.

Hlavním problémem, který je spojen s investováním v globálním světě investic včetně sestavování portfolia, jsou rizika vyplývající z mezinárodního uspořádání jednotlivých zemí, protože většina států ve světě přijala velice podobné principy tržní ekonomiky. Výsledkem tohoto seskupení je, že krize a ekonomické problémy jednoho státu ovlivňují i další země ve světě právě vlivem globalizačních procesů. Proto pro eliminaci rizika slouží sestavování investičních portfolií, platí i pro investování v globálním prostředí.

2. Investování na finančních trzích v globálním prostředí

Stávající finanční trhy dnes nabízejí širokou paletu investičních instrumentů, se kterými může investor obchodovat. Je na volbě investora, které instrumenty, trhy, země bude nejvíce preferovat, aby co nejvíce zhodnotil svoje peněžní prostředky.

Každý člověk je na světě ovlivňován globalizačními procesy bez ohledu na věk, pohlaví, vzdělání, profesi apod. Globalizace zasahuje do našich životů každý den a projevuje se pozitivně i negativně. Pozitiva můžeme nacházet např. v cestování do zahraničí, ve zvyšování životní úrovně. Negativa se mohou projevit např. ztrátou zaměstnání, civilizačními nemocemi, stresem, prohlubující se polarizací ve společnosti.

Významným negativním znakem globalizace je odliv finančního kapitálu z rozvojových a chudých států do vysoce vyspělých světových ekonomik, které reprezentují multinacionální a transnacionální společnosti často využívající výhod daňových rájů. Tyto pozitivní přínosy pro určitou skupinu nadnárodních firem generují významné zisky pro jejich vlastníky a tím prohlubují značné hospodářské rozdíly mezi jednotlivými zeměmi ve světě. Na možnosti řešení, opatření a fungování daňových rájů z různých hledisek upozorňují např. Novotný, Kruml (2015), Rose, Spiegel (2007), Dharmapala, Hines (2009), Jones, Temouri, (2016). Tyto úniky kapitálu vedou k posilujícímu postavení národních společností a značně ovlivňují významné makroekonomické ukazatele, jako jsou např. hrubý domácí produkt, nezaměstnanost. Dále to vede k neobjektivním závěrům a interpretacím, které vyvolávají u části obyvatel nepochopení. Velice častým příkladem je porovnání, jak pracuje např. český, slovenský a německý občan. V obecné rovině dochází k tomu, že ve všech pracovních pozicích pracuje nejvíce občan z Německa, tento výsledek je však způsoben tím, že dochází k odlivu kapitálu z řady zemí, který míří do tohoto jednoho státu. Po přepočtu HDP na jednoho obyvatele je výsledkem, že německý dosahuje lepšího pracovního výkonu než český nebo slovenský občan, přestože vykazují srovnatelné výsledky v řadě profesí. Toto srovnání je prohlubováno globalizačními projevy a velice sofistikovanými nástroji, které přispívají k bohatnutí určité země na úkor druhé, což vede k nerovnostem mezi jednotlivými státy a absurdním situacím (např. kdo pracuje více a kdo méně).

Globalizace zasahuje do života každého člověka intenzivněji a rychleji téměř ve všech oblastech společenských aktivit. Například na účinek globalizace v rovině pracovních práv upozorňují Blaton R, Blanton L. S. (2016), kteří potvrdili působení politického, ekonomického a sociálního prostředí v důsledku globalizačních procesů na zkoumanou problematiku. Výsledkem bylo zjištění, v zemích, které se více integrovaly ve zvolených oblastech, došlo k porušování kolektivních pracovních práv, avšak bez přímého vlivu na pracovní zákony. Problematikou globalizace se zabývají i další autoři, a to z různých hledisek, např. z pohledu vlivu na úlohu státu Jiránková (2008), na sportovní aktivity Tan (2015), na kulturní hodnoty Cleveland et al., (2016), Leung, K. (2014).

Globalizace se nevyhýbá ani finančním trhům. Ty ovlivnila velice zásadně, to dokládá trh s mezinárodními měnami nazývaný FOREX. Jedná se nejvíce globalizovaný trh ve světovém měřítku, na kterém lze provádět investiční záměry až 24 hodin denně. Investor na tomto trhu pouze mění země s ohledem na odlišná časová pásma. Na to navazují i další trhy jako zejména světový trh s akciovými, dluhopisovými a odvozenými cennými papíry.

Problematikou investování na finančních trzích v mezinárodním prostředí se zabývá Poshakwale a Thapa (2011), kteří upozorňují na skutečnost, že investoři sestavují mezinárodní portfolia z investičních instrumentů ze zemí, kde je lepší právní ochrana investorů. Z tohoto

tvrzení jasně vyplývá, jak je důležitý právní systém pro investorskou veřejnost v jednotlivých zemích, který přispívá k rozvoji investičních záměrů ze strany nejen domácích, ale i zahraničních investorů. Na podobný problém upozorňují i další autoři Giofré (2014), Froot et. al. (2001).

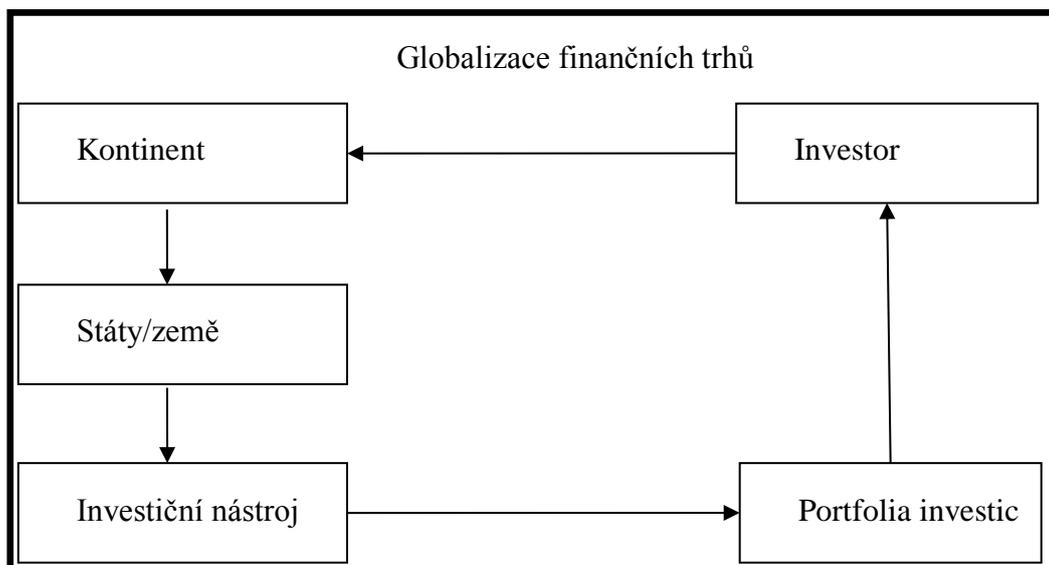
3. Investor v globálním prostředí finančních trhů

Investor, který se rozhodne uskutečňovat investiční záměry v globálním měřítku a nejen do akcií, by si měl stanovit souhrn a pořadí kroků, které je nezbytné uskutečnit pro realizaci vybrané investice, aby co nejlépe zhodnotil svoje finanční prostředky. Kroky by měly být následující.

- Vlastní analýza, která by měla zahrnovat velikost zamýšlené investice, vyjádřená v peněžních jednotkách, již je investor ochoten proinvestovat, aniž by ho to nějak ohrozilo nebo omezovalo na osobním životě.
- Určení časového horizontu, který je investor ochotný akceptovat. Musí přesně vědět, na jak dlouho tyto finanční prostředky nebude potřebovat.
- Výběr licencovaného obchodníka v tuzemském případně zahraničním prostředí a identifikace výhod a nevýhod, které z toho budou plynout, včetně ověření nabízené obchodní platformy včetně služeb a poplatků.
- Analýza historických a současných investičních alternativ u instrumentů, do kterých zamýšlí investovat. Čím více dostupných dat, informací, zpráv, doporučení a analýz o konkrétní investici, tím lépe pro investora, protože dokáže účinněji eliminovat rizika, toto tvrzení podporují i Myšková a Hájek (2015).
- Analýza budoucích investičních alternativ, jak by se mohly vyvíjet investice ve zvoleném časovém horizontu na základě predikcí, odhadů rizik a výnosů.
- Volba kontinentu a konkrétních zemí jako jedno z klíčových rozhodnutí, rozhodne-li se investor provádět investiční záměry v globálním prostředí.
- Přijetí konečného rozhodnutí, do kterých investic bude investováno, a přijetí investiční strategie.
- Uskutečnění obchodu, tzn. nákup investičních aktiv a sestavení investičního portfolia.
- Analýza a kontrola dosahovaných průběžných výsledků. Investor by měl pravidelně monitorovat svoji skladbu investic a přijímat rozhodnutí na základě dosahovaných výsledků ať, pozitivních nebo negativních.
- Rozhodnutí o dalším investičním rozhodování, zda hodlá pokračovat nebo zcela opustit např. akciový trh a bude provádět investiční záměry např. na trhu realitním. V případě dosahování výnosů je třeba zvážit jejich reinvestice, při vzniku ztráty její eliminaci včetně provádění změn ve skladbě portfolia.

V případě, že se investor rozhodne provádět investiční záměry na globálních finančních trzích, potom by měl vše detailně posoudit a postupovat podle zde uvedených kroků, aby co nejvíce diverzifikoval rizika související s finančními trhy. Investor, který se rozhodne uskutečňovat investiční záměry v globálním prostředí, je vysvětlen na následujícím modelu, který je zobrazen na obrázku 1.

Figure 1: Investiční model při investování v globálním prostředí



Source: vlastní zpracování

Z modelu vyplývá, že investor nejdříve volí kontinent (kontinenty), na kterém bude uskutečňovat investiční záměry v globálním prostředí, poté vybere jednu nebo několik zemí ve kterých nakoupí investiční nástroje a tím vytvoří portfolio investic. Předpokladem je, že investor se bude řídit jednotlivými kroky zde uvedenými, že provede analýzu ex ante, ex post atd.

3.1 Ověření a aplikace modelu při investování do akcií v globálním prostředí

Pro ověření a aplikaci uvedeného modelu budeme předpokládat, že investor má volné finanční prostředky ve výši 200 000 českých korun. Investor se rozhodl investovat tyto peněžní prostředky do akcií na světových trzích. Rozhodující kritérium pro tohoto investora jsou akcie firem, které poskytují finanční služby. Do každé společnosti je ochoten investovat přibližně 50 000 Kč, pro diverzifikaci rizika zvolil následující čtyři společnosti splňující jeho kritéria: Alior banku na polském trhu (Sejkora & Duspiva, 2015), na rakouském finančním trhu byla zvolena Erste banka (SWISS EXCHANGE, 2016), v Norsku společnost DNB nabízející finanční produkty a služby (Poshakwale & Thapa, 2011) a poslední byla zvolena Credit Suisse Group AG ze Švýcarska poskytující bankovní služby téměř po celém světě (Rose & Spiegel, 2007).

Investor uskutečnil koupi všech uvedených titulů akcií dne 1. 2. 2016 a časový horizont si zvolil na pět měsíců. Stanovil, že prodej uskuteční dne 1. 7. 2016 bez ohledu na ztráty a dosažené výnosy. V tabulce 1 je vytvořeno portfolio investic sestavené z akciových titulů. Vzhledem k tomu, že vybrané akcie jsou obchodované v jiných měnách, byl převodní kurz mezi českou korunou a ostatními měnami (polský zloty, Euro, norská koruna, švýcarský frank) stanoven podle České národní banky, platný v den nákupu tedy 1. 2. 2016. (ČNB, 2016)

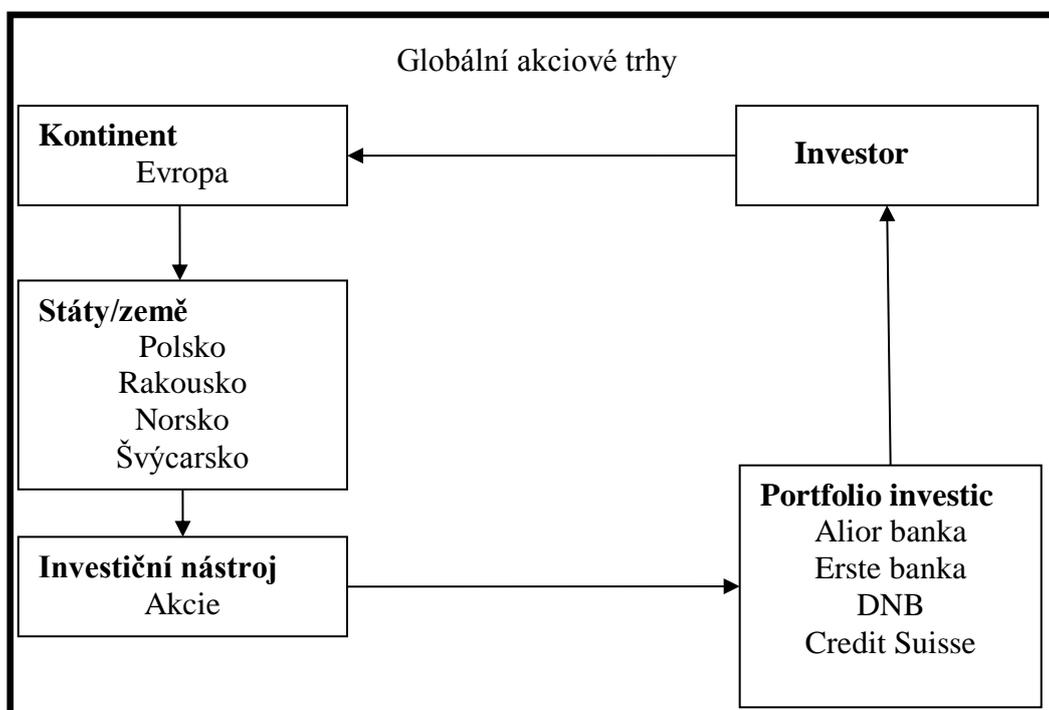
Table 1: Portfolio akciových titulů

Země	Název společnosti	Cena nákupu v Kč/1 akcii (P_0)	Počet ks (Q_0)	Celková cena pořízení ($P_0 * Q_0$)
Polsko	Alior banka	368,24	135	49 712,40
Rakousko	Erste banka	715,56	69	49 373,64
Norsko	DNB	290,80	176	51 180,80
Švýcarsko	Credit Suisse	427,57	116	49 599,28
Celkem				199 866,12

Source: vlastní zpracování podle OSLO BORS (2016), SWISS EXCHANGE (2016), WARSAW STOCK EXCHANGE (2016), WIENERBORSE (2016)

Na základě vytvořeného portfolia je možné přesněji aplikovat navržený model při investování v globálním prostředí do cenných papírů v dematerializované podobě, viz obrázek 2.

Figure 2: Aplikace investičního modelu při investování v globálním prostředí do akcií



Source: vlastní zpracování

Jak vyplývá z obrázku, investor zvolil pro své investiční záměry jeden kontinent a to Evropu, z kterého vybral čtyři státy: Polsko, Rakousko, Norsko a Švýcarsko. Ve všech zemích nakoupil jeden druh cenného papíru, a to akcie, které emitovaly společnosti zabývající se problematikou finančních služeb.

3.2 Vyhodnocení sestaveného portfolia investic

Investor si stanovil, že prodej uskuteční dne 1. 7. 2016 bez ohledu na dosažené výnosy a případné ztráty. Vyhodnocení sestaveného portfolia ke stanovenému datu na základě uvedeného modelu vidíme v tabulce 2. Převodní kurz mezi českou korunou a ostatními měnami byl opět stanoven podle České národní banky, který byl platný v den prodeje. (ČNB, 2016)

Table 2: Vyhodnocení prodeje portfolia akciových titulů

Země	Název společnosti	Cena prodeje v Kč/1 akcii (P ₁)	Počet ks (Q ₀)	Celková cena prodeje (P ₁ * Q ₀)
Polsko	Alior banka	319,60	135	43 146,00
Rakousko	Erste banka	547,54	69	37 780,26
Norsko	DNB	294,17	176	51 773,92
Švýcarsko	Credit Suisse	264,24	116	30 651,84
Celkem				163 352,00

Source: vlastní zpracování podle OSLO BORS (2016), SWISS EXCHANGE (2016), WARSAW STOCK EXCHANGE (2016), WIENERBORSE (2016)

Celkové vyhodnocení obchodní transakce od provedení nákupu a až po samotný prodej zvolených akciových titulů je vyjádřeno v tabulce 3.

Table 3: Celkové vyhodnocení akciového portfolia

Země	Název společnosti	Celková cena pořízení (P ₀)	Celková cena prodeje (P ₁)	Výnos/ztráta v Kč (P ₁ - P ₀)	Výnos/ztráta v % (P ₁ - P ₀ / P ₀) * 100
Polsko	Alior banka	49 712,40	43 146,00	-6 566,40	-13,21
Rakousko	Erste banka	49 373,64	37 780,26	-11 593,38	-23,48
Norsko	DNB	51 180,80	51 773,92	+593,12	+1,16
Švýcarsko	Credit Suisse	49 599,28	30 651,84	-18 947,44	-38,20
Celkem		199 866,12	163 352,00	-36 514,12	-18,27

Source: vlastní zpracování podle OSLO BORS (2016), SWISS EXCHANGE (2016), WARSAW STOCK EXCHANGE (2016), WIENERBORSE (2016)

Z celkového vyhodnocení vyplývá, že investor utrpěl výraznou ztrátu ve zvoleném časovém horizontu. Téměř všechny akciové tituly dosáhly negativních výsledků, pouze akcie z Norska generovaly výnos. Hlavním důvodem, proč investor dosáhl záporných výsledků, bylo nedávné rozhodnutí o vystoupení obyvatel Velké Británie z Evropské unie na základě výsledků referenda, které se konalo 23. 6. 2016. Tato situace nese označení Brexit a výrazně negativně ovlivnila finanční trhy. Ztráta v praxi by byla ještě výraznější, protože do hrubého výnosu nejsou započítány transakční náklady v podobě poplatků a daní, které se v jednotlivých zemích liší s ohledem na platnou legislativu, což uvedený příklad nezohledňuje, včetně vyplácení dividend, které naopak mohou ztrátu snížit. Problematikou dividend se zabývá např. Sejkora, Duspiva (2015), Jo, Pan (2009).

4. Diskuze

Vytváření portfolia investic přispívá k diverzifikaci rizika, ale to neznamená, že investor nemůže dosáhnout ztráty. To potvrdil i zde uvedený modelový příklad, ve kterém ze čtyř akciových titulů je pouze jeden ziskový. Investor měl přesně stanovený horizont, který se dá ovlivnit v případě, že opravdu nepotřebuje ve stanovený okamžik prodeje finanční prostředky. Pro přesnější budoucí predikce je lepší si vypočítat očekávané výnosy a rizika z jednotlivých titulů i z celkového portfolia, což doporučuje Novotný (2014) před začátkem obchodování. Bylo by vhodné, aby neměl investor přesně stanovený den prodeje. To je další klíčový atribut, který by se dal ovlivnit, což by se mohlo pozitivně promítnout do celkových výsledků. Dále může přistoupit na obměnu některých investičních nástrojů ve skladbě investic, což opět může vést k eliminaci ztrát.

5. Conclusion

Investování v globálním prostředí na finančních trzích není bez rizikové. Investor by měl velice detailně posoudit možná rizika vyplývající z mezinárodního obchodování. Za hlavní riziko lze považovat v tomto prostředí měnové, kdy může dojít k apreciaci nebo depreciaci některé zahraniční měny ve skladbě investic a to se může pozitivně nebo negativně promítnout do konečných výsledků. Nelze také opomenout i další rizika jako je např. legislativní, kde může dojít ke změně výše zdanění u cenných papírů, což opět může vyústit v prohloubení finančních ztrát nebo i dosahování vyšších výnosů. Každá investice nese určitá rizika, s tím musí investor počítat, bez ohledu na to, zda bude provádět investiční záměry v tuzemsku nebo na zahraničních trzích.

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THE INFLUENCE OF GLOBALIZATION ON INTERNATIONAL TRADE IN THE CONTEXT OF MAXIMIZING CONSUMER SURPLUS AND PRODUCER SURPLUS

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Abstract. One of the basic principles of economics is the recognition that the mutual trade and specialization can make everyone better off. International trade realised on the principle of absolute and comparative advantages increases the economic prosperity of national economies because the gains of the winners exceed the losses of the losers regardless of whether or not the economy is exporting or importing. A comparison of the gains and losses from trade shows the theoretical possibility of compensation for the losers by those who gained. In practice, compensation from international trade is rare. For this reason, opening up a market to international trade is an act that raises the economic welfare of some to the detriment of others. The reactions to the loss of welfare of one of the involved parties are obstacles to international trade, for example in the form of tariffs and quotas. When analyzing the economic welfare of buyers and sellers on the market, economists often use two tools: the consumer surplus and producer surplus. This paper is an assessment of how the process of globalization in relation with an increased competition affects the growth or decline in consumer surplus and producer surplus and in which way globalization can reduce and strengthen trade restrictions.

Keywords: globalization, consumer surplus, producer surplus

JEL Classification: D12, D210, F61, F62

1. Introduction

Jedním ze základních principů ekonomie je poznání, že specializací a vzájemným obchodem si mohou polepšit obě strany (Mankiw, 2001). Ekonomická teorie přistupuje k uvedenému principu dvěma způsoby. První z nich je založen na aplikaci principu absolutních výhod, druhý vychází z principu výhod komparativních. Zapojení národních ekonomik do mezinárodní ekonomiky a mezinárodního obchodu dává možnost využití absolutních a komparativních výhod na základě mezinárodní dělby práce. Mezinárodní obchod realizovaný na základě uvedených výhod zvyšuje ekonomický blahobyt národních ekonomik, neboť přínosy těch, kteří z obchodu získávají, převyšují ztráty těch, kteří na něm trátí, a to bez ohledu na skutečnost, zda daná ekonomika je vyvážející či dovážející. Z porovnání přínosů a ztrát vyplývá teoretická možnost kompenzace těch, kteří vzájemným obchodem ztratili, těmi, kteří vzájemným obchodem získali. V praxi je kompenzace těch, které mezinárodní obchod poškodil, vzácná. Z tohoto důvodu je otevření se mezinárodnímu obchodu činem, který zvyšuje blahobyt jedné strany v neprospěch strany druhé. Reakcí na ztrátu blahobytu jedné ze zúčastněných stran jsou překážky mezinárodního obchodu.

Při analýze blahobytu kupujících a prodávajících na trhu ekonomové často používají dva nástroje: přebytek spotřebitele a přebytek výrobce. Předmětem tohoto příspěvku je vyhodnocení, jakým způsobem proces globalizace, který je spojen s rostoucí konkurencí, ovlivňuje růst nebo pokles přebytku spotřebitele a přebytku výrobce a dále jakým způsobem globalizace zmírňuje či prohlubuje uvalení překážek vzájemného obchodu. Nejprve bude analyzován přebytek spotřebitelů a výrobců v rámci mezinárodní ekonomiky a mezinárodního podnikání. Poté bude věnována pozornost problematice obchodních překážek. Závěrečná část příspěvku bude věnována roli globalizace při odstraňování či naopak upevňování překážek vzájemného obchodu.

2. Přebytek spotřebitele a přebytek výrobce v uzavřené a otevřené ekonomice

Jedním z prvních ekonomů, který se zabýval problematikou specializace a vzájemného obchodu, byl Adam Smith (2001), jenž vypracoval teorii absolutní výhody spočívající ve specializaci na produkci zboží a služeb, která je vytvářena při absolutně nižších nákladech, než dokážou obchodní konkurenti. Na Adama Smithe navázal David Ricardo (1956), jenž prostřednictvím principu komparativních výhod dokázal, že k oboustranně výhodné mezinárodní směně může dojít i v případech, kdy jedna ze stran dosahuje absolutních výhod ve všech činnostech. Rozvinutí klasické teorie mezinárodního obchodu teoreticky zdůvodnilo výhodnost mezinárodní dělby práce a směny za předpokladu, že každá z národních ekonomik se specializuje na produkci statků, jež je schopna produkovat při relativně nižších nákladech, tj. při nižších nákladech obětované příležitosti. Ačkoliv mezinárodní ekonomie přinesla v dalších letech sofistikovanější teorie mezinárodního obchodu v podobě neoklasických, standardních, alternativních a integračních teorií, Ricardův model komparativní výhody přes řadu zjednodušujících předpokladů (například statický přístup k výchozímu stavu konkrétních výhod, existence konstantních výnosů z rozsahu, podcenění dopravních nákladů apod.) je užitečným analytickým nástrojem pro pochopení příčin mezinárodního obchodu včetně výhod z něj plynoucích (Svoboda, 2008).

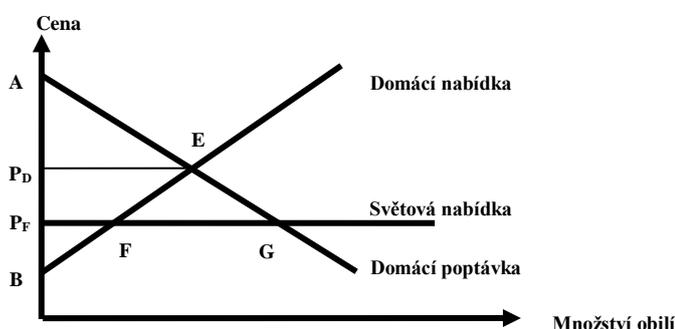
V následující části příspěvku budeme na příkladu malé otevřené dovozní ekonomiky analyzovat, jakým způsobem se zapojení národních ekonomik do mezinárodní ekonomiky projeví na přínosech a ztrátách zúčastněných stran včetně jejich vzájemného porovnání. Předpokládejme, že se pohybuje na trhu s obilím. Při neexistenci mezinárodního obchodu se v rámci uzavřené národní ekonomiky střetne domácí nabídka obilí s domácí poptávkou. Výsledkem bude stav tržní rovnováhy, kdy spotřebitelé a výrobci inkasují výhody v podobě tzv. přebytku spotřebitele a přebytku výrobce viz plocha trojúhelníku ABE na obrázku 1.

Zda se domácí ekonomika po otevření stane vývozní či dovozní, záleží na porovnání domácí ceny obilí (P_D) a světové ceny obilí (P_F). Bude-li domácí cena obilí vyšší než světová, stane se domácí ekonomika ekonomikou dovozní. Jakmile se domácí ekonomika stane otevřenou, domácí cena (P_D) se sníží na úroveň světové ceny (P_F). Domácí poptávané množství obilí se začne lišit od domácího nabízeného množství. Převis poptávky nad nabídkou bude v rámci domácí otevřené ekonomiky vyplněn dovozem zahraničního obilí. Tento zahraniční dovoz způsobí, že domácí trh s obilím zůstává v důsledku vstupu dalšího účastníka trhu (zahraničí) v rovnováze. Horizontální přímkou světové ceny je zároveň světovou nabídkou obilí¹. Otevření

¹ Dokonalá cenová elasticita světové nabídky obilí vyplývá z předpokladu, že domácí ekonomika je natolik malá ve srovnání se zbytkem světa, že může za danou cenu (P_F) nakoupit jakékoliv množství obilí.

domácí ekonomiky, jež z ní učiní dovážející ekonomiku, výrazným způsobem změni přebytku domácích spotřebitelů a domácích výrobců. Zatímco v uzavřené ekonomice byl přebytek spotřebitelů dán plochou trojúhelníku $AP_D E$, pak v otevřené dovozní ekonomice se přebytek spotřebitelů zvýší o plochu čtyřúhelníku $P_D E F P_F$ a trojúhelníku EFG . V součtu je celkový přebytek spotřebitelů dán plochou trojúhelníku $AP_F G$. Naopak přebytek výrobců, který v uzavřené ekonomice představoval trojúhelník $P_D E B$ se nyní zmenšil na plochu trojúhelníku $P_F F B$. Výsledkem vstupu národní ekonomiky do světové ekonomiky je fakt, že v případě otevřené dovozní ekonomiky jsou spotřebitelé těmi, kteří z otevření národní ekonomiky inkasují zvýšený prospěch, naopak domácí výrobci jsou v pozici těch, kteří inkasují ztráty. Zároveň platí, že celkový součet přebytků spotřebitelů a výrobců je v otevřené dovozní ekonomice vyšší (o plochu trojúhelníku EFG), než je tomu v ekonomice uzavřené.

Figure 1: Rovnováha v otevřené ekonomice



Source: Mankiw (2001), vlastní zpracování

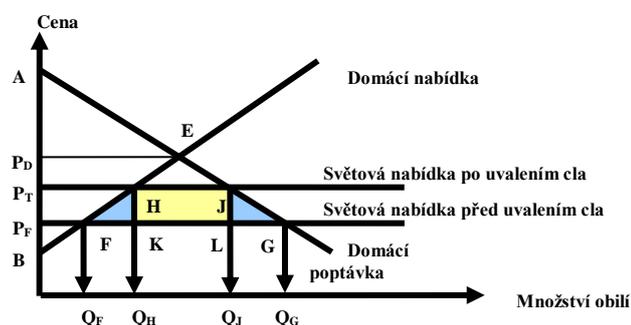
Analogickým způsobem by výsledek analýzy otevřené vývozní ekonomiky znamenal obdobný růst celkového součtu přebytků spotřebitelů a výrobců, přičemž růst přebytku výrobců by byl vyšší než snížení přebytků spotřebitelů.

Grafická analýza přebytku spotřebitelů a výrobců potvrzuje výše uvedený princip, že zapojení do mezinárodního obchodu zvyšuje blahobyt národní ekonomiky, protože prospěch jedné ze zúčastněných stran je vždy vyšší než újma druhé strany. Uvedený princip je univerzální, tj. týká se jak ekonomiky dovozní, tak vývozní. Je-li ekonomika dovozní, pak domácí spotřebitelé získávají a domácí producenti ztrácejí. Je-li ekonomika vývozní, pak domácí producenti získávají a domácí spotřebitelé ztrácejí.

3. Obchodní překážky

Z uvedeného souhrnu vyplývá, že z makroekonomického hlediska si národní ekonomiky v rámci zapojení se do mezinárodní dělby práce a směny vždy polepší viz růst celkového součtu přebytků spotřebitelů a výrobců. Z mikroekonomického pohledu je situace však mnohem komplikovanější. U dovozní ekonomiky jsou poškozenou stranou domácí producenti, u vývozní ekonomiky domácí spotřebitelé. Protože v rámci reálné hospodářské politiky vlády jen zřídka a nedostatečně vzniklé ztráty kompenzují, uchylují se poškozené strany k překážkám v mezinárodním obchodě neboli k protekcionismu. Jedním z příkladů obchodních překážek jsou tzv. DCR překážky, kam řadíme cla a kvóty (Baldwin a Wyplosz, 2013). V další části textu analyzujeme, jakým způsobem se uvalení obchodních překážek typu DCR promítne na růstu či poklesu přebytků spotřebitelů a výrobců v domácí dovozní ekonomice viz obrázek 2.

Figure 2: Rovnováha v otevřené ekonomice



Source: Mankiw (2001), vlastní zpracování

Před uvalením cla se obilí na domácím trhu prodávalo za světovou cenu (P_F). Celkový přebytek spotřebitelů byl orámovaný plochou trojúhelníku AP_FG , celkový přebytek výrobců plochou trojúhelníku P_FFB . Po uvalení dovozního cla se cena obilí zvýší o úroveň ve výši uvaleného cla, tj. na úroveň (P_T). Výsledkem navýšení ceny je růst nabízeného množství domácího obilí z úrovně Q_F na úroveň Q_H a pokles domácího poptávaného množství z úrovně Q_G na úroveň Q_J . Přebytek spotřebitele se sníží na plochu trojúhelníku AP_TJ , přebytek výrobce se zvýší na plochu trojúhelníku P_TBH . Vládní příjem z vybraného cla je dán plochou obdélníku $HJKL$. Celkový součet přebytku spotřebitele a přebytku výrobce je tak menší o plochu dvou modrých trojúhelníků HFK a JLG . Plocha těchto trojúhelníků představuje tzv. náklady mrtvé váhy způsobené clem, což představuje grafické potvrzení skutečnosti, že uvalené dovozní clo snižuje celkový přebytek spotřebitele a výrobce, tj. celkový blahobyt.

Z předchozí úvahy vyplývá, že dovozní clo ve svém konečném důsledku poškozuje národní ekonomiku jako celek. Z jakého důvodu tedy národní vlády velmi často přistupují k jeho uvalení? Jedno z možných vysvětlení spočívá ve faktu, že národní vlády podléhají tlaku domácích lobbyistických skupin, které nejsou schopny odolat tlaku zahraniční konkurence. Mezi nejčastější argumenty, jež tyto domácí lobbyistické skupiny používají, patří argument ochrany domácích pracovních míst, argument rovné konkurence, argument ochrany mladých odvětví a argument národní bezpečnosti (Mankiw, 2001, Holman, 2002). Například jeden z nejčastěji uváděných důvodů obchodního ochranářství, tj. argument ochrany domácích pracovních míst, je založen na tvrzení, že prostřednictvím dovozu lacinější produkce ze zahraničí jsou likvidována domácí pracovní místa. Tento argument je chybný, neboť dovozy přes mechanismus směnných kurzů vyvolávají posléze i vývozy. Pracovníci, kteří ztratili svá místa v odvětvích postižených levnými dovozy, naleznou své uplatnění v expandujících odvětvích s komparativní výhodou. Je pochopitelné, že než se tak stane, domácí ekonomika trpí krátkodobou strukturální nezaměstnaností se všemi svými sociálně-ekonomickými a politickými důsledky. Takto bychom mohli postupně vyvracet jeden z argumentů obchodního ochranářství za druhým.

Jestliže svobodný obchod a směna vedou k růstu produkce a blahobytu a jestliže řada argumentů obchodního ochranářství je vyvrácena, co vede vlády k protekcionismu? Jedno z mnoha vysvětlení nabízí teorie veřejné volby analyzující mimo jiné parciální zájmy a zájmové skupiny. O parciální zájem se jedná, jestliže podle Holmana (1999) „...*má nějaké opatření velký prospěch pro členy zájmové skupiny, tj. omezené skupiny voličů, přičemž náklady tohoto opatření dopadají na všechny voliče.*“ Klasickým příkladem sledování parciálních zájmů je prosazení již zmíněných dovozních cel, která výrazně navyšují přebytek výrobce oproti snížení

přebytku spotřebitele viz obrázek 2. Protože o přebytek výrobce se rozdělí početně malá skupina, je růst prospěchu na jednotlivce značný. Naopak pokles přebytku spotřebitele zasáhne početně mnohem větší skupinu spotřebitelů, takže ztráta na jednotlivce je zanedbatelná. Z tohoto důvodu se parciálním zájmům věnují ti z politiků, kteří prostřednictvím své spolupráce se zájmovými skupinami těží z finanční, mediální či jiné pomoci těchto velmi dobře organizovaných skupin ve snaze o volební vítězství. Voliči nepředstavují pro politiky zájmovou skupinu, neboť se jedná o početně silné uskupení, kterému schází exaktně definované konkrétní zájmy a efektivní organizovanost. Tak, jak dochází k růstu počtu zájmových skupin včetně jejich ekonomické a politické síly, roste i prostřednictvím státního intervencionismu výše ztráty celkového ekonomického blahobytu.

Ekonomická teorie nabízí i další vysvětlení důvodů protekcionismu. Podle Krpce a Hoduláka (2012) příkladem může být teorie vycházející z modelu voliče mediána, jenž v systému dvou politických stran stojících na opačném konci politického spektra nemá na výběr, neboť obě politické strany při snaze získat maximum voličů své volební programy téměř ztotožní. Výsledkem je snaha vlád přerozdělit důchody směrem k středovým voličům, tj. skupinám se středním příjmem.

Následující kapitola se bude zabývat rolí globalizace při odstraňování obchodních bariér.

4. Role globalizace v odstraňování obchodních překážek

Při posuzování role globalizace v procesu odstraňování obchodních překážek narážíme na problém samotné definice globalizace. Jak uvádí řada autorů (například Breinek, 2005, Jarý, 2015, Židek, 2009) ekonomická teorie tento pojem přesně nevymezuje, resp. přistupuje k tomuto fenoménu různým způsobem. Podle Černého (1996) pod pojmem globalizace řada ekonomů rozumí „...proces konvergence homogenizující síly, kdy se ve zmenšujícím světě stávají sociální, ekonomické a politické struktury stále podobnějšími.“ Židek (2009) hovoří o dvou názorových proudech, kdy první globalizaci vztahuje k současným kvalitativním změnám, zatímco druhý k pokračování integračních tendencí. K prvnímu proudu můžeme přiřadit například Jeníčka (2012), který globalizaci chápe následujícím způsobem: „Globalizace je nyní, po své počáteční fázi, která byla charakterizována rozvojem informačních technologií, spojena s obrovským růstem ekonomiky na světové úrovni. V širším měřítku tento globální fenomén posouvá trh, právo a politiku do takových souvislostí, které přinejmenším činí autonomii jednotlivých států problematickou.“ Příkladem druhého přístupu může být Kocourek, Bednářová a Laboutková (2013), jež globalizaci chápou jako, „...prohlubující se globální ekonomickou integraci, globální formy vládnutí a globální, vzájemně propojený sociální a environmentální rozvoj.“

Vyjmeme-li z vícedimenzionálního pohledu na globalizaci pouze pohled ekonomický, můžeme globalizaci definovat pojmy jako například liberalizace, internacionalizace, transnacionalizace, deterritorializace apod. Organizace UNCTAD pod pojmem ekonomická globalizace chápe stav rostoucího toku zboží, služeb a kapitálu přes národní hranice spojený se vznikem organizačních struktur řídicích expandující sítí mezinárodních ekonomických aktivit a transakcí (Jiránková, 2010). Uvedené pojetí ekonomické globalizace umocňuje například Woodward et al. (2001) tvrzením, že „...ekonomická globalizace je hybnou silou celého procesu globalizace v posledních dvou dekádách.“

Breinek (2005) ekonomickou globalizaci popisuje jako globální ekonomickou integraci, kterou lze vymezit jako funkcionální integraci, kdy dochází k propojování podnikových systémů, a institucionální integraci související s dodržováním dohodnutých pravidel národními

ekonomikami v rámci příslušné mezinárodní organizace. Začátek procesu globalizace je datován k 2. polovině 19. století v souvislosti s významným celosvětovým růstem zbožových trhů a trhů výrobních faktorů. Výrazný pokles dopravních nákladů, pokrok v komunikačních zařízeních a především snižování obchodních bariér bylo příčinou první vlny globální integrace. To vše bylo doprovázeno posílením konkurence a reorganizací průmyslu v některých zemích. Výsledkem této první vlny globalizace byla výrazná akcelerace hospodářského růstu. Meziválečné období (1914 až 1945) bylo charakterizováno protekcionismem, jenž byl reakcí národních vlád na zhoršující se domácí hospodářskou situaci. Uzavírání ekonomiky a využívání obchodních bariér vedlo k hospodářskému poklesu či stagnaci. Druhá vlna globalizace (1945 až 1980) v reakci na nepříznivý meziválečný vývoj logicky vedla k silnému tlaku na internacionalizaci, tj. k rozšiřování ekonomických aktivit za hranice národních států. Předcházející předválečné mezinárodní obchodní bariéry byly postupně uvolňovány. Institucionální integrace probíhala prostřednictvím vzniku nadnárodních organizací typu OSN, Světové banky, Mezinárodního měnového fondu a GATT. Zejména rozvinuté tržní ekonomiky pokračovaly v odstraňování předchozích obchodních překážek.

Pro současnou vlnu globalizace (1980 až 2005) jsou typické čtyři základní rozdíly: nové trhy (směna zboží, služeb a kapitálu je globálně propojena 24 hodin denně), nové komunikační nástroje (internet, mobilní telefony), noví aktéři (WTO, transnacionální korporace, regionální bloky typu EU, G7, OECD, NAFRA apod.) a nová pravidla a normy (deregulace, privatizace, globální konvence apod.). Doprovodným jevem této globalizační vlny je další pokles dopravních nákladů a komunikačních nákladů. V rámci světové ekonomiky jsou s dnešním procesem globalizace silně spojeny zejména dva fenomény: koncentrace a centralizace výroby a kapitálu a transnacionalizace. Začátek výraznější koncentrace a centralizace výroby a kapitálu se datuje od poloviny 19. století, kdy se do předních pozic dostávají největší a nejsilnější společnosti. Těmto firmám malý hospodářský prostor národních ekonomik přestává stačit, a tak dochází k postupnému pronikání na mezinárodní, resp. světové trhy. Ve světové ekonomice tak nastává proces monopolizace nejprve prostřednictvím vzniku kartelů, jejichž motivem je snaha o omezení konkurence a zproštění se placení vysokých cel. Horizontální, vertikální a konglomerátní formy spojení firmám usnadnilo snadněji kontrolovat trhy a výrazně zvyšovat efektivnost vyplývající z vysoko objemové produkce. V současnosti tato vysoká koncentrace a centralizace pokrývá výrobní, obchodní, finanční a bankovní sféru, což vede k rekordním hodnotám případných fúzí, akvizic a strategických spojení. Vzniklé transnacionální korporace jsou jak výsledkem procesu globalizace, tak jejím hybatelem. Transnacionální korporace jsou dnes hlavními nositeli transnacionalizace, procesu, ve kterém podle Breinka (2005) jednotlivé procesy a vztahy překrývají hranice národního státu a odpoutávají se od něj. Transnacionální korporace svým významem tedy omezují úlohu a postavení národního státu. V této souvislosti je nutné dodat, že uvedené oslabení národního státu na straně druhé dnes vyvolává celou řadu diskutabilních otázek. Příkladem může být zneužití moci transnacionálních korporací v oblasti prodeje a nákupu meziproductů za vnitropodnikové transferové ceny ovlivňující výrazným způsobem tvorbu zisků či ztrát v jednotlivých národních ekonomikách.

Rojíček (2010) zdůrazňuje, že současná fáze globalizace se vyznačuje svojí bezprecedentní dynamikou a rozsahem projevujícím se vysokým tempem růstu světového obchodu silným růstem zahraničních investic a nástupem nových hráčů (země skupiny BRIC). Druhým znakem je již uvedený růst objemu meziproductů vyvolaný možnostmi firem přesouvat dílčí výrobu do nákladově výhodnějších zemí. Konečně třetím faktorem současné globalizace je masivní obchod se službami typu pořizování a zpracování dat, výzkumné a konzultační služby, call

center apod., což souvisí se snížením nákladů na přenos dat, zlepšováním technologií, nástupem internetu atd.

Předchozí deskripce globalizačních procesů do současnosti otevírá otázky spojené s rolí a úlohou národních vlád. Ve čtvrté kapitole věnované obchodním překážkám jsme analyzovali vliv domácích velmi dobře organizovaných zájmových skupin a dobyvatelů rent v kombinaci s mýty obchodního ochránářství. Prokázali jsme, že v pozadí konání národních vlád je snaha politiků o dosažení vítězství ve volbách prostřednictvím „spolupráce“ s domácími skupinami. Zároveň jsme se obeznámili s neochotou národních vlád nést krátkodobé sociálně ekonomické důsledky strukturální nezaměstnanosti při hledání nových komparativních výhod. A právě proces globalizace, který stírá hranice mezi národními státy (Rojíček, 2012) a integruje národní ekonomiky do světové ekonomiky, velmi výrazně omezuje snahy vlád o zvýhodňování uvedených domácích zájmových skupin a dobyvatelů rent. Protože v rámci každé globalizační vlny docházelo k postupnému odstraňování obchodních bariér, výsledkem globalizace je výrazné oslabení síly a možností domácích zájmových skupin a dobyvatelů rent klást překážky mezinárodnímu obchodu.

5. Conclusion

Řada odborných publikací a studií dokládá, že globalizační procesy odstartovaly bezprecedentní ekonomický růst, který zajistil zvýšení bohatství a prosperity nejen v rozvinutých zemích, ale i v zemích zaostalých. I přes různá rizika a asymetrie globalizace ve svém souhrnu napomohla snížit chudobu, počty hladovějících a podvyživených, zvýšila vzdělanost, snížila negramotnost, napomohla k rozvoji a růstu kvality zdravotní péče apod. Jedním z faktorů výše uvedených pozitivních změn je role globalizace v rámci praktického prosazení jednoduchých a dosud platných ekonomických principů, jež byly zakladateli ekonomie formulovány před více jak dvěma sty lety.

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TECHNICAL SAFETY IN THE PROCESS OF GLOBALIZATION

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Abstract. Globalization as a process leads to more and more tight interdependence and integration among countries, economies, societies and cultures, what in turn has an immense impact on different aspects of people's lives. This process results mainly from information revolution. In globalization the management requires to take into account a crucial aspect - the safety. An increase in awareness of the safety and higher requirements concerning the safety caused a rapid progress in development of safety related science. Thanks to it, new techniques for identification of risk and formulas for it acceptance have been developed, quantitative and qualitative risk analysis has been applied. Progress in technology is one of main factors which drives and simplifies the process of globalization. This progress, apart from many advantages, can cause also many potential hazards. The technique accompanies the development of mankind, but only the industrial revolution triggered an abrupt increase in potential hazards, for example nuclear power plants, chemical industry, transport and so on. Because we cannot neglect all hazards generated by contemporary technique, it is necessary to limit the risk particularly in human losses, it can be realized by the safety improvement. Although the knowledge relevant to the safety is interdisciplinary, the significant part of the knowledge concerns technical problems. The paper is concerned with the safety from the point of view of globalization. The definitions for the risk, hazard and technical safety have been given. Safety management methods including hazard and technical risk assessment have been presented.

Keywords: globalization, technical safety, hazard, risk

JEL Classification: D81, F69, C02

1. Introduction

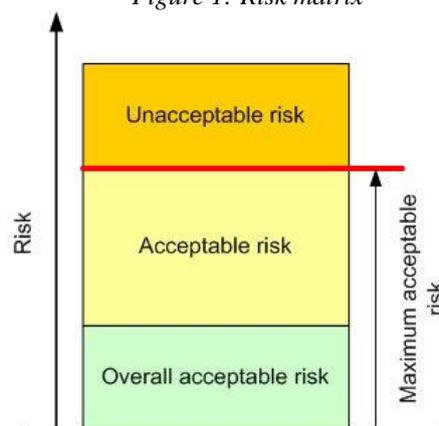
Although technical progress bears an immense contribution in globalization, it generates also many risks, for example occurring in power plants (nuclear power plants in particular), chemical industry and transport. In this case obviously, it is necessary to eliminate or reduce this risk. Over the last century, the scientific society has constantly dealt with the issue of the safety. Thanks to it, new scientific area emerged - safety science (Geysen, 1990), (Falk et al., 2012). Technical safety called safety engineering is a branch of civil engineering. This terminology includes such issues as: development, construction and maintenance of technical objects with particular emphasis put on the risk analysis. Despite the knowledge needed to solve

the safety problem is interdisciplinary and huge, its significant part concerns technical problems. It results from an immense impact of technique on contemporary society and environment. Industrial revolution induced many potential risks. Because all contemporary reality created with the use of modern technique cannot be neglected, therefore the measure should be taken to minimize the risk.

2. Risk, hazard, safety

People perception of the surrounded environment is imperfect. It results mainly from limited knowledge, experience and intellectual ability of people (Ying et al., 2012). Because of this, some events, for example: industrial disasters, accidents, terrorist attacks are treated by them as random processes. Therefore, it is impossible to foresee dangerous events, their size and consequences. It makes the scientists define new terms such as risk, hazard and safety. The risk is usually defined as the possibility of undesired event occurring and potential loss resulting from it (Aven, 1992). Because of random character of events, the risk is also defined as a probability of undesired event occurring and its consequences. Therefore risk analysis is often based on probability theory (Bedford & Cooke, 2001). The hazard is defined as conditional risk determined for situation caused by an undesired event (Szopa, 2009). In technical object many undesired events occurring in different periods of time can cause new hazards. There exists the main difference between the risk and the hazard. The risk is dependent of the duration of dangerous event and hazard should be referred to a single undesired event (Szymanek, 2006). Another important term in the safety science is an undesired event. It is the event (damage, breakdown, people's mistake) which leads to the risk. Primary event can induce the sequence of secondary events what in turn can cause the transition from the risk to the losses called accident or disaster in case of heavy losses. The size of losses is related to human, social and economic losses. The most important term in safety science is the safety. There exist many inconsistent definitions of safety. In case of technical objects, the safety is usually defined as the lack of unacceptable risk, so that the system is safe if the risk relevant to the operation of the system is on acceptable level (Łukasik et al., 2014) (fig.1).

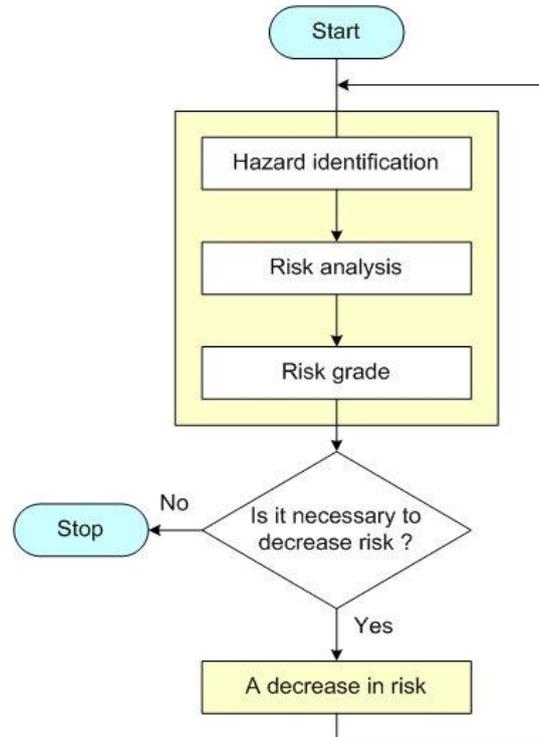
Figure 1: Risk matrix



Source: own elaboration

Technical objects whose operations can cause substantial risk are called safety-critical systems. Globalization process had an influence on the creation of many normative acts in which the safety levels for safety-critical systems have been given. Therefore, it is necessary to estimate risk levels in the risk management (fig. 2).

Figure 2: Risk management algorithm



Source: own elaboration

Risk management algorithm consists of 4 stages contained in the loop. The loop is continuously executed. The core of the process constitutes the risk assessment algorithm which is responsible for calculating of value of risk and comparing it with acceptable value.

3. Safety analysis of system

Safety analysis is used to determine the safety level of system. This analysis is comprised of two elements:

- Hazard analysis, which allows for identification of dangerous situations,
- Risk analysis, which allows for identification of frequency and effects of dangerous events.

Safety analysis methods can be divided into deterministic and probabilistic (Berman, 2012), (Berman et al., 2014). Deterministic analysis is used to find causes of risk, it is realized by determining the cause-effect relationship for the impending risk. In probabilistic analysis, calculation of the likelihood of dangerous event is based on the frequency of damage occurring for all elements of the system. Safety analysis techniques can be divided into inductive and deductive (Bozzano & Villafiorita, 2010). In inductive methods, first the risk in the context of the whole system is estimated, next the analysis of causes of the risk for every element of system is performed. In deductive methods, first feature of elements in the system and risks resulting from them are identified, next on the basis of already identified feature of elements feature of the whole system is estimated.

Risk analysis consists of following methods:

- Check-list,

- Primary hazard analysis,
- Hazard and operability studies (HAZOP),
- Structure « What if? » (SWIFT).

Check-list was developed by experts. It contains the set of questions and elements which should be posed and checked to identify the risk. Results are used to assess the risk.

Primary hazard analysis is an inductive method used during designing the system. This method estimates the set of potential risks and their effects as well as risk assessment.

HAZOP. In HAZOP method, the group of experts perform risk analysis for the system (Huang & Sun, 2014). It is based on the assumption that the group of experts from different areas can achieve better results in risk analysis than a single person. Every person in the group has strictly defined task (developer, user, expert) and participates in the whole risk analysis. Analysis for each element of system is performed sequentially. Potential solutions are proposed by members of group, next after discussion the best solution is chosen. Results are registered and can be verified by persons who are not members of the group.

SWIFT – Structured „What-If” Technique. It is an inductive method which can be used as the alternative for HAZOP. It uses "what-if" rules to answer questions posed - what will happen if some events occur.

Risk analysis is performed using following methods:

- Scenario analysis,
- FMEA (Failure Modes and Effects Analysis),
- FMECA (Failure Modes, Effects and Criticality Analysis),
- ETA (Event Tree Analysis),
- FTA (Fault Tree Analysis),
- Markov analysis,
- Monte Carlo simulation,
- Bayesian statistics and Bayes Nets,
- Layer protection analysis (LOPA),
- Decision tree.

Scenario analysis. This method allows for creation of different scenarios regarding events which can happen in the future. This method can be used to manage the risk. It is achieved by identifying overall risk having an influence on the operation and functioning of the system.

FMEA, FMECA. FMEA is deductive method which allows for the analysis of damage type for elements of system, their cause-effect relationship, what in turn enables to identify critical elements whose damage can cause the risk (Zennir et al., 2014). FMECA is the version of FMEA method in which the analysis of consequences of damage, degree of criticality and the probability of its occurrence have been extended. This method consists in the determination of the likelihood (probability) of damage and breakdown occurring as well as their effects affecting the operation of the object under analysis or elements of this object. Every element of system is separately analyzed. This analysis answers the following questions: how can the

damage occur, what can cause the damage and what are effects of the damage. In this method risk indicator R is defined as:

$$R = P * Z * W \quad (1)$$

where: P – probability of fault (damage, breakdown), Z - significance of fault, magnitude of effect of fault, W - detection rate for the fault.

After calculating the values for P , Z and W terms, the risk is assessed. If it is assumed that each term (P , Z , W) varies from 1 to 10, then the risk indicator R can vary from 1 to 1000. The results of this methods are presented in the table form.

ETA. ETA is the inductive method. It is used to check safety mechanism built-in the system which should prevent accidents from happening or limit their effects. The idea of ETA method consists in the interpretation of an undesired event as a result of the sequence of events. Because of it, this method uses event tree in which an initial event is the beginning of the tree and branches represent all possible sequences of events resulting from the initial event. Additionally, in order to perform plausible risk assessment, all initial events should be identified. The probability of an undesired event is a product of probabilities of all events occurring in the path of the tree. The beginning and the end of this path are the initial event and undesired event, respectively.

FTA. FTA method allows for the analysis of the whole system. It takes into consideration different technologies while designing the elements of system. FTA identifies hazard in the system what in turn has an influence on the creation of mechanisms preventing the system from damaging. FTA analysis is performed in a few steps: preparation of analysis, creation of fault tree, analysis using the tree and result preparation. Preparation of analysis consists of: getting familiar with the system, determining precision of FTA method for this system as well as the goals and assumptions for this analysis. The last step of the preparation of analysis is the risk identification. It is also the first step in construction of the fault tree. Every known risk called top-event is a starting point for the separate fault tree. This tree consists of two main elements: events and gates. Gates are used to describe cause-effect relationship for events. Fault tree is built by continuous adding direct causes represented as leaves in the tree. As a result of this, new events are added to the tree. They grow from leaves (events). Additionally a gate connecting leaf-event with its cause is added. It is repeated until the cause of next event can be determined. The right construction of fault tree needs to include all events relevant to their cause-effect relationship. The last element of FTA method is a tree analysis. It can be probabilistic or deterministic. Probabilistic analysis is a quantitative method which allows for quantitative determination of system attributes, for example the risk. It enables to calculate the probability of risk occurring if the probability of the causes of the risk is known. Deterministic analysis is a qualitative method which allows including the system behavior and interoperation among its elements.

Markov analysis. Markov analysis is a quantitative statistical method which can be used to estimate the probability of events (Suyama & Kosugi, 2009). This analysis regards stochastic processes in which the transition from one state to other state of the system under analysis depends only on previous state and is independent of the sequence of states.

Monte Carlo simulation. It is a statistical method which can be applied when the risk assessment is based on many variables (Armoush et al., 2009). It allows for determination of risk distribution in the population under analysis as well as confidence level and interval.

Bayesian statistics and Bayes Nets. It is a statistical method. It can be used to estimate the probability. It allows identifying mutual relationships between elements of risk. These relationships are determined on the basis of diagram constructed by this method (Daziano et al., 2013).

LOPA (Layers Of Protection Analysis). Quantitative-qualitative method using for precise mathematical assessment in the HAZOP method (Holub & Boercsoek, 2007).

Decision tree. Decision tree can be used to show an alternative decisions. This method is particularly useful in creation of plan of risk management. In case when unacceptable risk can occur, it is necessary to take measure leading to risk's effect minimization. This method allows showing different actions and foreseeing their effects. Thanks to this analysis, one of possible path in the decision tree can be chosen.

4. Technical risk's measure

Risk analysis requires to define risk measures, which consider character of technical object. Risk measures allow for risk assessment, estimation and comparison what in turn improves risk analysis. One of risk measure considering random losses is $\Lambda(c,t)$. It corresponds to the probability that loss of the value higher than c occurs in the period of time t . This risk measure can be defined by following equation (Szopa, 2009):

$$\Lambda(c,t) = P\{C(t) \geq c\} \quad (2)$$

where: $C(t)$ denotes value of loss occurring in system under analysis in the period of time t . Based on risk measure definition, its values vary in a range:

$$0 \leq \Lambda(c,t) \leq 1 \quad (3)$$

At constant value c of loss, risk measure $\Lambda(c,t)$ increases along with an increase in operation time of the system. If more precise risk analysis is required then other risk measure based on time derivative of $\Lambda(c,t)$ can be defined:

$$h(c,t) = \frac{d\Lambda(c,t)}{dt} \quad (4)$$

$h(c,t)$ corresponds to the probability that loss of the value higher than c occurs in sufficiently small period of time after instant of time t . If the relationship between $h(c,t)$ and time is known then cumulative risk for given period of time t can be calculated. Therefore, the risk measure $\Lambda(c,t)$ is defined as:

$$\Lambda(c,t) = \int_0^t h(c,\tau) d\tau \quad (5)$$

It results from (4).

Statistical counterpart of measure $\Lambda(c,t)$ can be presented as:

$$\Lambda(c,t) = \frac{n(c,t)}{N} \quad (6)$$

where: $n(c,t)$, N and C denote the number of undesired events occurring in the period of time t , the size of sample and value of loss respectively.

5. Conclusion

Globalization is the process by which the world is becoming increasingly interconnected as a result of massively increased trade and cultural exchange. This process results mainly from information revolution which has an immense impact on technological cultural and political development. Invariably, the safety is a crucial issue constantly taken into account during development of new ideas and trends. The paper is concerned with technical safety related to the globalization process. Terms risk and safety have been defined. Risk method and risk analysis have been discussed as well as technical risk's measure has been determined.

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USING INSURANCE INSTRUMENTS FOR REDUCTION THE RISKS IN INTERNATIONAL LEASING OPERATIONS

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Abstract. The significance of the problem of improving and maximizing the opportunities for well-known ways to reduce the risks of leasing operations is relevant. In Russia the process of attracting interest in the lease is carried out mainly at the expense of the state programs of economic recovery and revival of business processes that speed up technological progress. The article highlights the risk reduction factors and determined the degree of their influence on the development of leasing activity: to reduce material losses; reduce financial risks through insurance. It is proposed to divide the existing risk management methods in leasing on the institutional (exchange, donation, trade-in, remarketing, and others), which are used in the implementation of the lease and the methods of risk engineering (risk management, securitization, diversification, hedging, insurance) used in financial and economic activity of the leasing company. Identify new methods of risk management in the lease, allowing to increase the security of the leasing transaction. To determine the most preferred practice of the design used on the contract of insurance mechanism of leased assets, when the policyholder is assigned to the lessee, and the beneficiary of the leasing company, which allows to achieve the maximum performance of the obligations of the insurance company at the stage of payment of insurance compensation.

Key words: leasing, financial leasing, leasing entities, lease agreement, the negative factors insurance.

JEL Classification: M2, H84, H3, G22, G28.

1. Introduction

In the article the factors of risk reduction are singled out, and the degree of their impact is estimated. New and already existing methods of risk management are suggested. The mechanism of implication of various types of insurance is described. These types can ensure protection in several directions, such as financial and value loss reduction. They also allow to reduce financial risks. The improvement and maximal use of the existing ways of risk reduction in leasing transactions in Russia are of high economic importance.

During the economic crisis period, the leasing promotion is performed by state programs of economic recovery and business speed-up, which accelerate the activity of enterprises, foster small entrepôt and, consequently, increase tax revenue. The decrease in leasing transactions and the growth of troubled assets have led to leasing companies' earnings dilution and made them optimize costs significantly and to take risks reduction measures. However, it is not possible to stop the earnings dilution: according to RAEX ("RA Expert") (2015) forecast, the investment to the main capital will continue to decrease in 2016, which will inevitably lead to

leasing market shrinkage. Summarizing the results of 2015, the volume of new enterprises have narrowed 25% down, in 2016 it will decrease in 10-15%, which will have a negative impact on economics in general.

The fact that leasing transaction has several subjects brings out the risk side of its mechanism. It is becoming more and more typical to include additional parties, also to reduce risks. Insurance company has obtained the position of a mandatory participant of a leasing transaction. The analysis of insurance of leasing transactions practice has shown the limitations of this method of leasing transaction parties risk minimization. The insurance is done in a simplified form and only for safety and integrity of leasing object. The above mentioned determines the relevance of our study of theoretical and methodological aspects of insurance tools implication in leasing in order to receive a material and financial compensation for the negative influence of different risks on leasing transaction.

The examination of insurance implication issues should allow structuring the business processes of leasing transaction, including, above all the main parties of transaction, the additional parties.

It is possible to distinguish such scientists as Graham, J. R., Lemmon, M. L., Schallheim, J.S. (1998), Tazelaar, F., Snijders, C. (2013), Antoncic, B., Hisrich, R.D. (2001), Smith, G.R., Bohn, C.M. (1999), Durana P. (2015) from the theorists who made a real contribution to development of the theory of leasing

The leasing transaction should be considered as a complex dealing, in order to single out the risks during the cooperation and mutual influence of all parties involved. It is suggested to divide the existing methods of management of risks in leasing to organizational (barter, donation, trade-in, remarketing etc.), which are used during the implementation of the leasing itself, and the methods of risk engineering (risk management, securitization, diversification, hedging, insurance) used in a financial and economic activities of the leasing company. The new methods of management of risks are singled out. They can upgrade the security of the leasing transaction. Of practiced mechanisms of leased property insurance agreement execution the most preferred is defined, which allow to achieve the maximal fulfillment of an insurance company obligations in a phase of compensation payment.

2. Methods of risk assessment in leasing

The complexity of the specified problem determines the complex approach towards its study. The leasing activity, as any other economic activity, faces many risks in a market environment. During the arrangement of a transaction, the lessor, the lessee and the seller have to pay attention to many issues, the solution of which can reduce negative factors and eliminate adversities. Risks of each party differ dramatically, thus we consider them in detail.

Let's take a closer look at each group of risks reduction methods:

1. Organizational methods of leasing transaction protection, which can be divided into two sub-types.

Firstly, methods dealing with the relations between the lessor and the seller regarding the sell-off of the confiscated leased property, expressed in certain guarantees in case of lessor's inability to pay.

Secondly, methods dealing with the relations between the lessor and the seller regarding the way buyout of the leasing object. Despite the fact that the seller according to the law is obliged

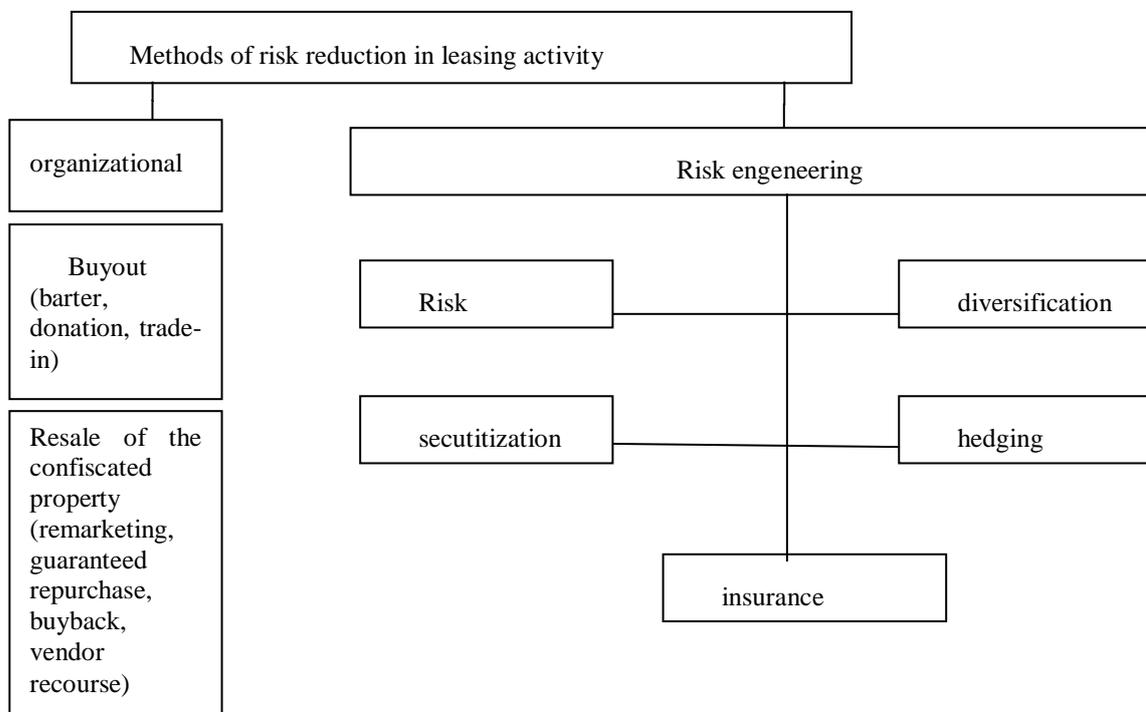
to supply the property to the buyer, to perform the adjustment and startup procedures and, if necessary, to train the staff to work with a purchased property, in actual practice the leasing dealing can imply his participation in future. This is what happens when remarketing, the future purchase agreement, the buyback agreement and indemnity obligation.

1.1 The simplest form of the supplier's guarantee is the resale or remarketing agreement. They establish an agreement according to which the supplier must fulfill the obligations to sell the property, given that the lessee cannot make a leasing payment or violates some conditions of the agreement and as a consequence, the property is confiscated. The lessor shall be exempt from organization of sale process.

1.2 Guaranteed repurchase is a dealing in which the supplier guarantees a previously defined disbursements to the lessor according to agrees table of prices in case of lessee's nonfulfillment of payment obligations. This guarantee is certainly economically advantageous for the lessor. But the realia of the Russian leasing business witness that the supplier is not less interested in this agreement. The suppliers see in leasing companies a guaranteed trade channel and interested in close collaboration.

1.3 To support and increase money flow from the main activity the supplier and the leasing company make an agreement on risks division of business transactions. Buyback is considered as one of this type of methods. The mechanism of this way of risks minimization is simple. The buyback procedure is implicated when a lessee cannot make leasing payments according to the agreement and to buy the property or is unable to pay.

Figure1: Methods of risk reduction in leasing activity.



Source: self-processed

The object of leasing is given back to supplier according to the agreement of sale and purchase for the price previously arranged with the lessor, taking a discount into consideration.

1.4 Another type of supplier's guarantee is vendor recourse. To reduce risks in case of lessee's nonfulfillment of payment obligations a certain guarantee of the supplier to lessor, which allows

to compensate to the lessor a certain percent from the sum of the transaction. Sometimes this type of dealing is highly attractive to the supplier p, because he can earn receiving a reward for an issued voucher. In V.D. Gazman's opinion, one of the types of pool recourse, which is advantageous for both sides is a sum surety, i.e. the attempt of the seller to provide to the lessor almost one hundred percent guarantee of his risks protection, at the same time to limit his own risks setting a "ceiling" of guarantee sum. (Gazman, 2011)

In order to make business community pay attention to this method and practice it as an advantageous for the parties, the leasing relations should be characterized a long term and perspective cooperation between the supplier and a lessor.

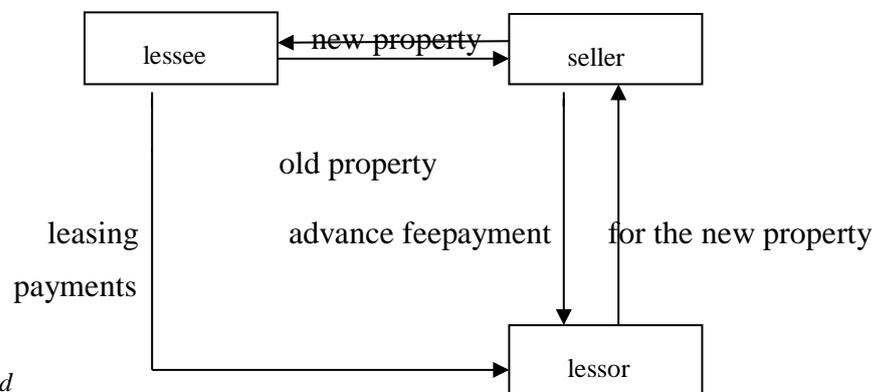
All the methods mentioned above are guarantees of the supplier of the property to perform the leasing transaction. Practicing them will allow to all the participants of the leasing to reduce the risks, at least, in the worst case, lessee's inability to pay.

Nevertheless will all mentioned above already used and easy to understand ways to buy the property, we should emphasize the trade-in system, which can be an argument for addressing to leasing. The trade-in has appeared in Russia relatively lately and became very popular, because it has found its implication in direct purchases and credit of means transport or technical appliances by natural and legal bodies. In leasing activities in Russia it is practiced so rarely that it hasn't been described, or is not practiced at all, despite the fact that trade-in mechanism can reduce risks of the financial rent parties. The principle of the dealing in its classical form is that the buyer also performs a part of a seller and a seller performs a part of a buyer. The parties exchange their property. The customer purchases the new property from the seller, and as an exchange gives him his second-hand property with an excess fare. The seller assesses the market price of the accepted customer's property and reduces the amount of payment. After the fulfillment of obligations according to trade-in system, both sides lose the right of property to the given goods and obtain it towards the accepted ones.

The economic expediency is determined by the absence of additional costs for the advanced fee. The lessee gets rid of inefficient property and for an excess fare gets a new and improved one.

2. The methods of risk engineering are following: risk management, securitization, diversification, hedging and insurance.

Figure 2: Trade-in in leasing.



Source: self-processed

Nowadays, banks are the first in the set of key attributes of system risk management. This is because they are the absolute leaders of the financial market and, having enormous financial opportunities, banks penetrate into almost all the sectors of the economy. Leasing activity is not

an exception, it is the main competitor of the credit system of banks. But this situation is typical for undeveloped financial markets. In more developed financial systems, the dominant position is parbank system (that is non-bank financial institution), which includes leasing companies. Basing on the data table, we can conclude that the Russian market is in transition.

3. Risk management in the leasing

The purpose of risk management in the leasing is to save a leasing company, fully or partially, its resources or to get the expected income (benefits) fully, as a result of the decision.

The specific purposes of risk management in leasing activities depend on life cycle of a company. At the survival stage, a company takes all possible means to prevent unacceptable losses, to deduct property of a company, to ensure income planned and so on. At the stage of flourish, a company protects confidential financial information, ensures a company's competitiveness, reduces the cost of borrowed capital and so on.

With the decline in medium- and long-term financing of risky sectors of the economy, securitization attracts leasing activity, as it provides additional liquidity to the lessor.

Securitization has two types: classic and synthetic. Both of them are implemented in several stages. Selection in the selection is the first standard step. Further economic and legal mechanism of securitization gets peculiarities in the process of its design and implementation. (Gazman, 2011)

In Russia classic and synthetic types have certain features and differences expressed in both economic and legal mechanisms of action, which are given in Table 1.

Table 1: Comparative characteristics of the types of securitization in Russia

Comparison criterion	Classic securitization	Synthetic securitization
Reflection on the balance	Transition to the balance of the SVP (except when the balance holder is the lessee)	No
Relation to the lease agreement	Formal lessor	Only the right on receivables
Tax features	Arise because of the change of balance of the holder (VAT, profit tax, law on the use of accelerated depreciation)	No
Costs of emission	Necessary to conduct rating of the issued legal, costs of listing	The Eurobond issue, costs are minimal
Currency of the contract on securitization	Foreign because of the lack of national legislation	At the choice of the Issuer
Timing of the chargeback	3 years	6 months

Source: self-processed

In V.D. Gazman's opinion (2011), the mechanism of securitization of assets is attractive for a leasing company because of the following reasons:

- Due to the fact that the cost of debt capital (bank credit) for leasing company is too high at a certain moment at high value of leverage (financial leverage). Securitization allows

to accumulate cheaper resources, as there are now separate liquid assets and not leasing the company.

- Leasing assets have such characteristics that allow one to actively pursue securitization without significant cost on formation of the securitized portfolio of assets.
- Significant integration of financial markets raises the growth of competition in the capital market among the lessors, and the search for cheaper sources of financing.
- The ability to receive and use the information available via information systems to all market agents. This information is provided specifically for each type of leasing assets, therefore, the participants of the leasing market can obtain an estimate of each assets
- Securitization of assets of a leasing company involves a range of actions, including selection of assets, their transfer and the transfer of the rights on them, the issuance of the legal, secured by these assets, and the holding of the issuance of the legal. Studying the features of the types of securitization of leasing assets allows to organize the parameters that give a characterization of this financial instrument, as well as to determine directions of realization of financial-economic interests of the parties of the lease.

Diversification is a method of financial impact on the management of leasing transactions. In accordance with the theory of portfolio management by G. Markowitz (Gazman, 2011) total portfolio risk of financial instruments can be decomposed into two components:

- Systematic risk affects almost all trades equally, and removing it is practically impossible;
- Specific (or unsystematic) risks, which are typical for leasing transactions.
- In the scholar's opinion, it is specific risk that can be mitigated through diversification that means the management of leasing portfolio.

In leasing transactions that will be executed in the following way. In the process of investing the concept of diversification is based on the effect of negative correlation or, in other words, the "Harry Markowitz effect". The "Harry Markowitz effect" states that during the formation of the leasing portfolio, it must be strived to ensure that investment would be done in the transaction, among which there would be more negatively correlated transactions. Moreover, a negative correlation should be between industries, where the lessees work, and the leased items.

Diversification can be held in the organization on the basis of data on investment portfolio on the basis of analysis of time, assets and industries.

To manage risk, it is necessary to diagnose and measure. Criteria portfolio risk management can be divided into three groups: quantitative, qualitative and integrated (Ajupov, 2007, B):

- Quantitative criteria include: the concentration of the portfolio; the relative underpayment; the average size of the down payment; the average maturity of the portfolio; the average yield of the portfolio;
- Qualitative criteria include: the diversification of the portfolio by leasing objects; portfolio diversification by industry clients; the average loan portfolio risk;
- Comprehensive criteria include: RANIL (the ratio of the balance owed on the loan in the calculation of lease adjusted rating); "active-passive" risks (the risks arising from the imbalance of assets and liabilities on the amounts, value, date and other indicators, foreign currency risk, interest rate risk, liquidity risk and others).

The approach of diversification is a complex mathematical process, the preparedness of organization and staff for its use. Diversification allows us to analyze the client portfolio,

specifying the time of unreliable partners and the portfolio of leased assets, controlling its liquidity.

The works of A. A. Ayupov reveals in detail the question of leasing transactions techniques of hedging with the use of such instruments in the securities market, as a forward and a futures contract, option, bill (Ajupov, Mishina, Ivanov, 2014).

The use of options in Russian practice is not widespread, although they can be successfully used in leasing transaction. According to A. A. Ayupov, the scheme of using options is next. At the moment of signing a leasing agreement, the leasing company must sign an option contract put (sale option). The acquisition of the leasing company of an option qualifies for the option in a specified period to implement the subject of the contract to the seller of the option at a predetermined price (the strike price) (Ajupov, 2007, A). The leasing company provides an opportunity of realization of confiscated or returned in advance to a specific seller and a specific value. Other hedging instrument of leasing transactions can be a bill. (Ajupov, 2007, B).

The only method of the group of risk engineering, which guarantees to reduce the risks in leasing transaction is insurance. Distinctive feature of insurance among other means, minimizing risk, is compensatory nature of the action. The advantage is the creation of additional favorable conditions for the conclusion of the transaction, enabling the parties of the lease to not run away from risks. Also the responsibility for risks cannot be shifted and divided between the parties of the lease. Backup and outflow of funds are not required.

4. Insurance as a tool to reduce the risks of leasing operations

Insurance of leasing transactions can be guaranteed to offset the cost of the lessee in case of loss (destruction), or damage of the object of lease in the material form (for example, payment of insurance compensation in the form of repairs or providing specific details to repair), or financial compensation (e.g. payment of insurance indemnity in cash), to fulfill the obligation of the lessee to reimburse the harm caused to life, health or property of third parties, and the lessor in case of impossibility to pay the leasing payments.

The importance of application of insurance of leasing transactions is able to ensure the reproduction process of leasing activity. The use of these methods in practice can significantly enhance the security of leasing transactions. The first group of methods of reducing the risks of organizational nature require no financial costs, just arrangements, tidiness of work, strict implementation of the rules. The second group of methods is the risk engineering requires a high level of organization of the company and staff training in the implementation and execution of financial-economic nature. And the peculiarities of the relations between the parties are considered, taking into account the fact that the creditor bank is included in a leasing relationship, which, in practice, plays an important role in leasing transaction.

Table 2: Main advantages and disadvantages of typical patterns of destination of the insurer and beneficiary for insurance of leasing transactions

Insurer	Beneficiary	Advantages		Disadvantages	
		forLessor	forLessee	forLessor	forLessee
Lessor	Lessor	Fullcontrol	Ability to include the cost of insurance in the cost of the lease payment; Transaction "inonewindow"	Carries costs and risks for all financial transactions; Lackofstaff	Impossibility of choice of insurer and insurance conditions; rise of the cost of the leasing
	Creditor bank	Provision of credit to finance the leasing		No disposition of insurance indemnity	
	Lessee	No riskofunfair	Controlofinsuranceindemnity		
Lessee	Lessor	Control disposition of insurance indemnity	No riskofunfair	Risk of selecting insurer suspicious	No disposition of insurance indemnity
	Creditorbank				
	Lessee	Lackofcontrol	Fullcontrol		Carries costs and risks on all financial transactions

Source: self-processed

The most understandable situation in terms of the insurance contract and the relationship of the parties at the phase of payment of insurance indemnity is when the lessee acts as the insurer, and the beneficiary is the lessor. And it is more correct, if the lessor participates in the payment when property is stolen or cannot be repaired.

So, modern methods of risk reduction with the use of insurance instrument have the possibility of introducing less popular and used tools in the practice of leasing activity in Russia with the purpose to increase attractiveness of leasing, to reduce risks arising during the implementation of the lease agreement, expansion of the range of potential lessees.

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EXPLANATORY POWER OF FINANCIAL HEALTH ASSESSMENT IN AGRICULTURE

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Abstract. Risks and the explanatory power of the financial health assessment through bankruptcy and credibility models are very hot topic. Results of the financial health assessment are affected by values in the financial statements. Creative accounting can lead to distortion of these values. Additionally, the success of models is also not absolute and it may happen that the result of this assessment will affect negatively the decision of investors, owners and other users of this information. Due to globalization, the International Financial Reporting Standards are used as the accounting system. This accounting system has some advantages in the financial health assessment compared with Czech regulations. Differences in accounting of subsidies, the valuation at fair value, or the classification of biological assets in fixed assets reduce the using of creative accounting compared with our system. Thus, financial statements are not affected so much. In this paper, models IN05, Gurčík index, CH-index and 'Řezbová OP model' for the Operational Programme Rural Development are evaluated. The absolute and relative indicators that are most correlated with the actual position of the company, are identified. According to a summary the most important seems to be EBIT and cash flow. From the ratios are statistically significant the return on assets and the total debt. According to these results it would be useful to replace the suggestible indicator income by the indicator of cash flow, which is not affected by the accounting methods.

Keywords: financial health assessment, agriculture, risk, explanatory power

JEL Classification: M4, Q1, G3

1. Introduction

Financial health assessment through credibility and bankruptcy model is widely-used. It has many advantages but the outcome of these models can be untruthful. These models use information from financial statements, which can be influenced unconsciously but also consciously with a specific aim. The aim could be tax minimization, or to reach good financial results. Drábková (2015), Dvořáková (2015) or Pervan et al. (2014) deal with risk areas, manipulation or frauds of the accounting of agricultural enterprises. Drábková (2015) analysed several models to evaluate the financial health. According to her analysis Z-Score was not able to reveal the risk of data manipulation. Pervan et al (2014) developed a model for the reformulation of accounting data to eliminate data manipulation and improve the accuracy of the prediction of problems. Model with adjusted data showed higher reliability by 5.4 %. It informed that the data manipulation affects the accuracy of evaluating the financial health of companies. The fact that the actual rating through bankruptcy and credibility models is not enough, says also Šindelářová (2006) in her work. Gustafson (1989) also notes that not only

financial indicators but also other information, for example the environment surrounding of the agricultural enterprise, should be included in the financial health assessment.

Honková & Výbora (2015) devoted to differences in accounting according to Czech accounting standards and International Financial Reporting Standard (IFRS). The valuation at fair value and the inability to revalue assets at fair value were determined as the main differences. In the Czech Republic, the value of assets may be reduced through adjustments, the increasing is not possible. In the Czech Republic tax depreciation is also widely used instead of accounting depreciation, which should correspond to the actual situation. By valuing inventory under IFRS only a very small proportion of fixed costs can be activated. According to their analysis the differences in the evaluation of financial health by using the Z-score between the Czech regulation and IFRS are not significant compared to expectations.

An asset acquired through leasing is conducted on account of assets of the tenant, as well as a commitment from the asset. Under IFRS, it is not possible to create a reserve for repair of fixed assets, such as under Czech law. Accounting of investment subsidies under the Czech legislation leads to reducing the value of the acquired assets. The actual value of the acquired assets is recorded on off-balance sheet accounts. The profit and the value of assets are distorted (Dvořáková, 2015). Kubíčková & Jindřichová (2013) deal with the impact of the accounting under the IFRS on the financial health assessment through Z-score. The changes in the value of Z-score after adjusting the data from IFRS to Czech accounting legislation were analysed on data records of 30 companies. Based on this analysis, accounting under the IFRS leads to a lower assessment of the financial condition and efficiency. Statistically significant differences were also found in individual indicators. According to Strouhal (2009) the biggest problem by comparing the results of enterprises keeping accounts according to IFRS is the measurement basis. In terms of Czech accounting legislation, assets are evaluated at historical cost (purchase price), while under IFRS at fair value.

For example Kopta (2009), Sušický (2011 I., II.) or Maňasová (2008) deal with the evaluation of the reliability of credibility and bankruptcy models. Kopta (2009) evaluated the reliability. He focussed on financial problems caused by two factors: profitability and cash flow. In his analysis of the prediction of problems due to profitability, the model for Rural Development Programme and the Gurčík index came out as the best. The CH-index and IN95 responded best to threats arising from cash flow. He also did an analysis of the reliability by determining the thriving enterprises. The 'Řezbová OP model' for the Operational Programme Rural Development came out as the best (reliability of 89.68 %). The second was the Grünwald index (62.90 %) and the third the Gurčík index (only 33.23 %). Maňasová (2008) first evaluated the success rate of bankruptcy prediction models on enterprises that actually got into troubles in the following years. With no distinction between sectors, the IN05 index was the best. She also dealt with the same evaluation depending on specific sectors. In the field of agriculture, the ZETA and Z-Score models generated the best results. The IN models of the Neumaiers also achieved very good results.

The aim of this article is to define the reliability of models for recognizing companies with problems and thriving companies. The next aim is to identify statistically significant indicators by recognizing of actual financial standing of companies.

2. Materials and data

The first part includes an analysis of the reliability of the selected models in predicting problems and an analysis of the reliability in identifying thriving companies. For the analysis,

the data set from the database Albertina Gold was used. The financial statements from 2008 to 2013 of enterprises which in 2014 were in bankruptcy or liquidation were used to determine the reliability by predicting of companies' financial problems. For other analysis were used all available data from the years 2008 to 2014. The same data set was used to analyse the most significant indicators by evaluating the financial standing of companies.

The analysis examined four selected models of financial health assessment, namely: index for Rural Development Programme, Gurčík model, CH-index and IN05. These models were chosen because they were created within the context of the Czech Republic and Slovakia and because they were intended for the assessment of enterprises in agriculture. Only the IN05 model is not designed for agricultural enterprises but it is the latest model created by the Neumaier in the Czech Republic.

Table 1 lists the number of used data for individual models divided into the thriving businesses and the businesses in liquidation or bankruptcy.

Table 1: The number of available data records for each model

Company/model	Index for RDP	Gurčík index	CH-index	IN05
Companies in bankruptcy or liquidation	222	190	194	157
Thriving companies	6 067	15 174	15 070	10 617

Source: own processing

2.1. 'Řezbová OP model' for the Operational Programme Rural Development (hereinafter Řezbová OP model)

This model was specifically designed for the Operational Programme 'Rural Development' by Řezbová (Rosochatecká & Řezbová, 2004). It contains 10 indicators of financial analysis. Points are allocated according to the result achieved in the individual indicators. Financial health assessment is carried out for the last three closed accounting periods. The calculation is made for every year and the final score is the arithmetic average of the results from individual years. Enterprises can achieve a score of 0 to 30 points. If the company obtains a minimum of 9.01 points, it is assessed as financially healthy. In the table below you can see the resulting assessment based using the Řezbová OP model.

Table 2: Resulting assessment for the Řezbová OP model.

Category A	from 22.01 to 30
Category B	from 14.01 to 22.00
Category C	from 9.01 to 14.00
Category D	From 6.01 to 9.00
Category E	From 0.00 to 6.00

Source: State Agricultural Intervention Fund, 2016

This model includes the indicators of return on assets and long-term profitability, return on performance from cash flow, added value/inputs, total debt, interest coverage, coverage of stocks by net working capital, maturity of debt from cash flow, overall liquidity and investment activity.

2.2. Gurčík model

The Gurčík model is designed to assess the financial health of Slovak agricultural enterprises and was created by Professor Gurčík in Slovakia in 2002. The model has the following form:

$G = 3,412 * \text{retained earnings/assets} + 2,226 * \text{profit/assets} + 3,277 * \text{profit/revenues} + 3,149 * \text{cash flow/assets} - 2,063 * \text{inventories/revenues}$

According to the resulting value of the Gurčík index, enterprises are classified as follows:

- 1.8 < G thriving enterprises
- 0.6 < G < 1.8 grey zone
- G < -0.6 enterprises going bankrupt (Gurčík, 2002)

2.3. CH-index

The CH-index (Chrastinová index) is a bankruptcy model created by Zuzana Chrastinová for Slovak agricultural enterprises in 1998. The equation is as follows:

$CH = 0.37 * \text{profit / assets} + 0.25 * \text{profit / revenues} + 0.21 * \text{current assets / current liabilities} - 0.1 * \text{current liabilities / revenues} - 0.07 * \text{foreign capital / assets}$

Evaluation of the result of CH-index calculation:

- 2.5 < CH thriving enterprises
- 5 < CH < 2.5 grey zone
- CH < -5 enterprises going bankrupt (Chrastinová, 1998)

2.4. IN05

This model was created by the Neumaiers in the Czech Republic in 2005. It also takes into account the viewpoint of the owner.

The index equation is as follows:

$IN05 = 0.13 * \text{Assets / Liabilities} + 0.04 * \text{EBIT / Interest payable} + 3.97 * \text{EBIT / Assets} + 0.21 * \text{Revenue / Assets} + 0.09 * \text{Current assets / Current liabilities}$

According to the resulting value, companies are classified as follows:

- 1.6 < IN05 enterprise creates value
- 0.9 < IN05 < 1.6 grey zone
- IN05 < 0.9 enterprise does not create value (Lososová & Zdeněk, 2014)

3. Results and discussion

The first part includes an analysis of the reliability of the selected models in predicting financial problems. There were evaluated the reliability in identifying problematic enterprises. Table 3 shows the results with a success rate in percentage. There are percentage figures for the inclusion in troubled businesses, in thriving or in a grey zone.

Table 3: Reliability (in percentage) of the selected models in predicting the enterprise's financial problems

Classification by models	Correctly classified as threatened	Grey zone	Incorrectly classified as successful
Řezbová OP model.	1.35	-	98,65
Gurčík index	50.27	44.97	4.76
CH – Index	86,08	6.19	7.73
IN05	63.46	23.08	13,46

Source: own analysis

The analysis shows that the CH-index is the best for the prediction of financial problems the company with 86% success rate in identifying financial problems. In addition, only 7.73 % of the companies improperly ranked among businesses successful. The IN05 and Gurčik index achieved the reliability of over 50 %. Gurčik index also had the lowest error rate (4.76 %). Conversely, the Řezbová OP model shows the highest error rates. It included 98.65 % of businesses in liquidation or bankruptcy among the successful businesses.

IN05 came out as a suitable model for recognizing enterprises in difficulties also in the analysis of Sušický (2011, II.). According to the analysis of Kopta (2009), the Gurčik index was evaluated as the best at recognizing problems due to profitability and the Řezbová OP model for cash flow.

A similar analysis was performed on data of companies which had no problems in those years. The results of this analysis are shown in the table 4. There are percentages for the correct classification, for inclusion in the grey zone and for a wrong classification.

Table 4: The reliability of models in recognizing thriving companies

Classification by models	Correctly classified as successful	Grey zone	Incorrectly classified as threatened
Řezbová OP model	98.62	-	1.38
Gurčik index	15.9	59.34	24,1
CH – Index	7.5	91.71	0,79
IN05	29.65	38.89	36.46

Source: own processing

The Řezbová OP model was the most successful in identifying thriving companies. According to the previous analysis this model is very moderate in identifying problematic enterprises, so this result was expected. The CH-index classified more than 90 % of businesses into the grey zone. The biggest error rate in the classification of the enterprises in threatened businesses has proved IN05. This model is due to these two results the strictest one in the assessment of the financial situation of businesses.

According to the results of the analysis of Kopta (2009) the Řezbová OP model for the Operational Programme Rural Development is the best one, the next will be the Grünwald index. The Gurčik model achieved the success rate only 33.23 %.

The next analysis ‘Generalized linear models’ done in Statistica evaluated the dependence of the actual state of the company (two categories - healthy firms and firms in bankruptcy or liquidation) on individual and ratio indicators. The actual situation of the company was therefore taken as the dependent variable. The selected items of the financial statements or their ratios were determined as independent variables. The selection of these items was made with respect to the frequency of these indicators in the originally selected models.

The results of the analysis are the following. When analysing without ratio indicators the sales of own products, cost of sales, depreciation of assets, EBIT and cash flow were significant. The ratios profit/assets, cash flow/asset, EBIT/assets, income/assets and foreign capital/assets were also significant.

Table 5: The analysis of individual and ratio indicator (red are statistically significant)

Individual indicator	Wald. Stat.	P	Ratio indicator	Wald. Stat.	P
Absolute term	262.0441	0.000	Undivided profit/assets	1.497	0.221135
Total assets	262.0441	0.355	Profit/assets	23.56	0.0000
Current assets	0.8716	0.8060	Profit/revenues	0.0122	0.9120
Inventories	0.0603	0.7825	Cash flow/assets	12.0963	0.000505
Short-term receivables	0.0762	0.3091	Inventories/revenues	0.0176	0.8944
Financial assets	3.8303	0.050	Assets/net profit	0.0010	0.9749
Liabilities	0.00	0.9875	EBIT/interest expenses	0.4935	0.4897
Equity	0.7767	0.3781	EBIT/assets	14.8661	0.0001
Registered capital	0.5132	0.4737	Revenues/assets	7.8078	0.0052
Foreign capital	0.4646	0.4954	Current assets/ short-term liabilities	1.4,002	0.2366
Long-term liabilities	0.8095	0.368	Short-term liabilities/revenues	0.1019	0.7495
Revenues	5.7779	0.016229	Foreign capital/assets	7.0074	0.0081
Cost of sales	9.0489	0.002629			
Depreciation	3.8906	0.048556			
Profit of current reporting period	3.4178	0.1653			
Interest expenses	1.9245	0.5132			
EBIT	6.5199	0.01066			
CASH FLOW	5.5310	0.01868			

Source: the own analysis

4. Conclusion

In this paper, an analysis of selected models, their success in identifying financial problems of enterprises, was performed. CH-index achieved the best results with a success rate of 86 %, Gurčík index and the model IN05 also proved an absolute success. In contrast, the Řezbová OP model achieved very poor results.

Furthermore, there is an analysis of the recognizing of healthy businesses. In this analysis the Řezbová OP model identified 98.62 % of the businesses properly. According to previous analysis, in which also 98 % of companies with trouble were identified as trouble-free, it can be concluded that this model is the least strict. In contrast the model IN05 ranked 36.46 % healthy firms among problematic.

In the last part, the statistics Generalized Linear Model evaluated the dependence of the actual state of the company on the individual and ratio indicators. Among the most important indicators are the EBIT and cash flow; equity; long-term liabilities; revenues from sales of products, goods and services; the cost of these products, goods and services and amortization of tangible and intangible assets. Among the ratio indicators the indicators of return on assets in various forms and the total debt are significant.

The results show that it should be more appropriate to use the indicator of cash flow instead of profit. The indicator of cash flow is not so affected by the risk areas such as profit.

Because of the majority of authors dealing with this issue uses in their analysis the model Z-score, further work will include this model to better comparability of results.

Acknowledgment

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THE IMPACT OF BLACKOUTS ON THE ECONOMY AND NATIONAL SECURITY

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Abstract. Almost every user of electric receivers has encountered once some power failure. Depending on the season, time occurrence and duration, the power cut is more or less annoying. In most cases, the power cut lasts for a few minutes. This causes mainly difficulties in the functioning of the household. The lack of power supply over a long period of time over a wide area of the country, can make huge financial losses and also is threatened the safety of the residents. In recent years the phenomenon of blackout occurs repeatedly more often. The number of receivers deprived of the power supply is counted already in millions. The article presents the problems associated with the influence of great breakdowns in the power engineering system on the economy and the national energy security. Globalization of economy causes both threats to the power engineering system (cyber-attacks, terrorist attacks on transmission lines and power stations), as well as allows for the energy transmission to the systems threatened with breakdowns. The world's greatest breakdowns in power engineering systems are described by the authors of this article. The largest breakdowns which occurred in the Polish power system will be also described as well as the problems faced by Polish power system. The authors suggest solutions, which at least to some extent, will reduce the chaos and losses arising in case of breakdowns of the power engineering system.

Keywords: blackout, power quality, power supply

JEL Classification: F52, L94, Q40, Q41

1. Introduction

The development of technology led to a situation where the developed economies are completely dependent on electricity. Access to energy sources (in the case of Polish hard coal and lignite), modern power stations, the right structure and condition of the transmission lines as well as providing continuity of supply are the basis for national energy security.

Failures in the energy system always result in financial losses incurred by both suppliers and consumers of electricity. The costs depend mainly on the scope of the accident, the degree of damage to the power system, the duration and the number of customers without power. It is assumed that a failure of system, known as a blackout is when more than 5% of the national power system will be deprived of power supply. Causes of the failure in the power system can be very different. Failure of Chernobyl was caused by human error (Smith & Beresford, 2005). Italy's cut-off from the UCTE power system resulted, among others, was caused by the need for energy imports, the lack of reserve capacity and insufficient coordination

in the activities of the operators of the power system (Corsi & Sabelli, 2004). The failure, which affected the Nordic countries was initiated by damage to the equipment in the transmission system of Sweden (Andersson et al., 2005, van der Vleuten & Lagendijk, 2010). Very often the causes of failure of the power system are weather anomalies. High temperatures lasting for a long time have been one of the causes of the accident, which took over part of the USA and Canada (Andersson et al., 2005, Hines al., 2009,). Tsunami in Japan caused one of the biggest failures in the nuclear power plants Fukushima and Fukushima I (Hayashi & Hughes, 2013).

In Poland, until now, we have never had to deal with the failure of the power system that can be described as blackout. The main causes of the failures happen mainly as the effect of malfunction of equipment in power plants, for example “Turow” power plant, as well as the result of bad weather conditions.

2. The biggest system’s failures in the world

The disaster, which took place on April 26th, 1986 in Chernobyl nuclear power plant, is one of the most tragic since the mankind began to use electricity. The main cause of the crash can be recognized as the errors committed by the operators of the reactor No. 4 during a test, when trying to power reactor’s coolant pumps with generators. Mistakes made during the design process made the reactor become very unstable at low power. The experiment should be conducted at a reactor’s power of 1000 MW.

Table 1: Estimated number of people affected by the accident In terms of evacuation, resettlement, people living in contaminated areas, liquidators and invalids

	Ukraine	Belarus	Russia	Total
Evacuated people (1986-1990)	91,000	24,000	3,400	118,400
Resettled people (1991-2000)	72,000	135,000	52,400	259,400
People living in contaminated areas	1,140,813	1,571,000	1,788,600	4,500,413
Liquidators	550,000	108,000	200,000	858,000
Invalids	88,931	9,343	50,000	148,274

Source: Bay I. A., Oughton D.H, 2005

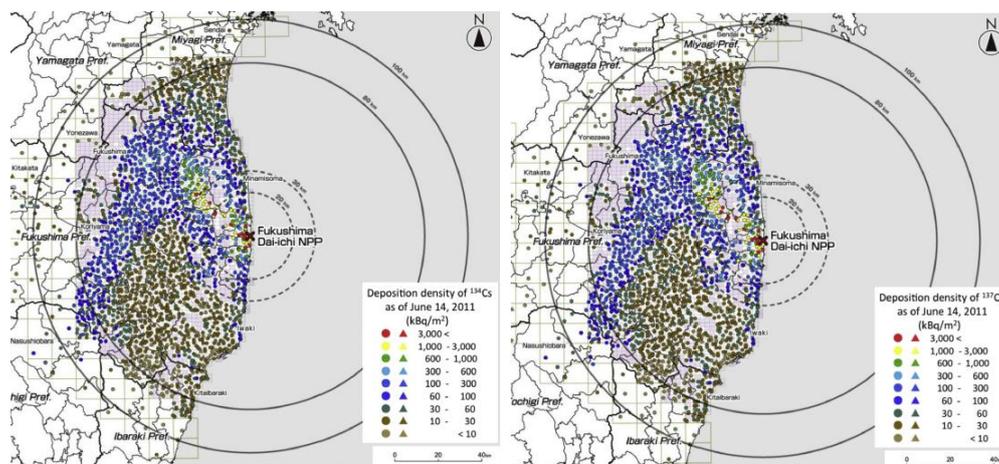
However, it was done with the power of 200MW. The time when the power generators were on was so long, that pressure pumps delivering cooling water to the reactor, being without the power, abruptly lost their efficiency. This resulted in a overheating of the reactor’s core, which led to its complete destruction. More than 140 thousand km² of land have been infested, resulting in displacing more than 350 thousand people. Worldwide, more than 600 thousand people received an increased dose of radiation. According to only in Ukraine, Belarus and Russia, the number of people injured in the Chernobyl crash is estimated at more than 7 million (Bay & Oughton, 2005; Zhukova 2016).

The total economic costs of the Chernobyl disaster are very difficult to determine. It is estimated that the direct cost of failure is approx. 15 - 20 billion US dollars. In the years 1986-2016, as a result of the Chernobyl disaster Ukraine has spent over \$ 230 billion and Belarus more than \$ 200 billion (Bay & Oughton, 2005; Samet & Seo, 2016).

An earthquake off the coast of Honshu which happened on the 11th of March 2011 triggered a massive tsunami. The World Bank estimated the losses caused by the tsunami at \$ 235 billion, and the government of Japan for more than \$ 300 billion. Tsunami, being a natural disaster, caused the greatest financial loss in the history of the world. As a result of the tsunami one of the world’s largest nuclear power plant Fukushima I, with a capacity of 4.7 GW was damaged as well as power plant Fukushima II. Due to the damage to the power transmission network

power plant was deprived of an external power supply. Tsunami with a height of 14m caused the flooding of the premises and equipment in power plants, including power generators supplying power to the reactor's safety systems. As a result, there has been reactor cores overheating (partial melting), which resulted in explosions of reactors 1, 2 and 3, and fire in the building of the reactor No. 4. There was a release of radioactive material, causing contamination of the area and evacuation of residents within a radius of 30 km from the power plant (similar as in the Chernobyl disaster) (Wakeford, 2016). Fukushima disaster is compared to the Chernobyl accident - 7 INES (International Nuclear and Radiological Event Scale, INES).

Figure 1: Accumulations of cesium 134 and 137



Source: Saito et al., 2012

In Figure 1, you can see the area contaminated with cesium 134 and 137 after the accident in Fukushima I. The great sacrifice of thousands of people who worked at securing the damaged reactor at Chernobyl and Fukushima in spite of the radiation, should be mentioned. Their actions significantly reduced the effects of both disasters.

In the second half of the twentieth century other failures in the nuclear power plants around the world happened. In 1958, in the nuclear power plant Windscale (United Kingdom) there has been a leak of radioactive iodine 131 - INES 5. Failure of the cooling system in radioactive waste storage from the plant Majak - INES - 6 (1957, Ural, Russia) has caused radiation over 270 thousand people. In 1979 there was the largest failure of an American nuclear power plant. In the Three Mile Island power plant (Pennsylvania) there was a meltdown - INES 5. The consequence of the accident was a need to evacuate more than 200 thousand people. As a result of radioactive contamination in the power plant Garanii (Brazil) - INES - 5, irradiated were more than 100 thousand people. The financial costs to be incurred for failures in nuclear power plants are very difficult to determine (in many cases impossible). This is due to the fact that the contaminated areas are returning to the state before failure for decades (the disappearance of radiation), and a significant part of these areas can no longer be cultivated and inhabited.

Another type of failure, which involve huge financial losses are shut off's of a large part of the national power system. Very often they affect millions of electricity consumers. They are not as dire as those caused by nuclear accidents at Chernobyl and Fukushima, but generate huge costs associated with the effects of a power outage and restoring of an energy supplies.

In Europe, the biggest failure of the system took place on September 28, 2003, when a substantial part of Italy has been disconnected from the European electricity system - Figure 2.

It was initiated by excluding transmission line with a voltage of 380 kV between Switzerland and Italy (line overloading). As a result of significant energy imports by Italy, there has been an overload of subsequent power lines. At 3:36 there was a total collapse of the power system in Italy.

Figure 2: Line of separation from UCTE



Source: Bialek J.W., 2010

Power failure lasting more than 20 hours touched approx. 57 million inhabitants. The costs of failure are estimated at more than 1.2 billion Euro (Final Report of the Investigation Committee on the 28 September 2003 Blackout in Italy, Petracci, 2011).

In order to mitigate the effects of similar events in the future, the Italian Government has decided to build 17 new power plants with a total capacity of 11915 MW and 3 new international lines. It was also announced that investments in the structure of the transmission part of the electricity system, planning the construction of 45 new stations and the expansion of high-voltage network by more than 2000 km will take place (Biedrzycki & Wiśniewski, 2004).

In August 2003 a huge failure in the power networks in Canada and the USA had happened. Beginning of the crash took place on August 14, approx. 16.10 hours. 531 power units at 265 power plants in Canada and the USA were shut off. No power supply lasted over 2 days and affected 55 million people. The last power units were re-launched in Canada in August 25, 11 days after a failure. According to the report US losses were estimated between \$ 4-10 billion (Final Report on the August 14, 2003 Blackout in the United States and Canada).

3. Polish power system - resistance to big failures

Significant concentration of power in two Polish power plants is one of the biggest threats to the National Power System. Power plant "Bełchatów" with a capacity of 5420 MW produces over 20% of energy in Poland and the plant "Kozienice" with capacity of 2880W - 11%. In the second half of 2017 a new unit with a capacity of 1,075 MW is expected to be launched. Serious disturbances of operation in these power plants may be the cause of the failure of the Polish power system.

Another problem of the systems manufacturing energy may be distribution of power plants in the country. In the north and east of Poland there is a significant power deficit. Similarly, in

these regions the transmission network is underdeveloped. The expected solution of the problem was to build the nuclear power plant "Żarnowiec", near Gdansk (under construction since 1982). As a result of questionable return on investment compared to conventional power plants, the protests of the local population (in the referendum, 86.1% were against the construction) and the unwillingness of society to nuclear power, especially after the Chernobyl disaster, in 1990 construction of the plant was stopped. As a source of reserve energy for the future nuclear power plant, one of Europe's largest pumped-storage hydroelectricity power plants, "Żarnowiec" with a capacity of 716 MW was built. Due to the possibility of a very quick start, "Żarnowiec" is, next to other similar plants important link in the safety of the National Energy System. This is very important in case of a sudden power shortage. Using the power from water power plants can also help to run conventional power plants being off because of emergency, eg. in the case of blackout. Conventional power plant when turned off, without external power supply could not be switched on again.

Weather anomalies are the next danger that might cause problems with the energy supply for customers. Problems can occur both in winter and summer. On the 8th of April 2008 ice-covered wires led to the failure of a high-voltage supply line powering Szczecin. More than half a million customers was left without energy, and losses from this failure valued at over 50 million zlotys. In the report which examined the causes, it was found that even an extensive network system comprising four independent transmission lines does not guarantee sufficient supply reliability in the event of repeated country extreme weather conditions (Protocol study committee power failures in the Szczecin)

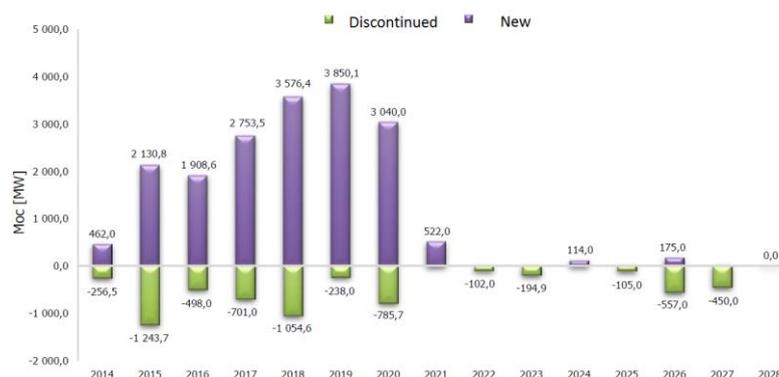
Individual and industry customers were affected by a limited energy supply in the summer of 2015, when due to the high temperatures sustained for a long period of time, power plants had to reduce their energy production.

The biggest threat to the continuity of power, however, seems to be under-investment in the sector involved in the transmission and distribution of electricity. Keeping the power system in a condition for safe operation is associated with huge financial outlays. Only in 2014, operators of transmission and distribution system spent more than 1,5 billion Euro. In order to improve the safety of the National Energy System in the coming years it is expected to expand the cross-border connections by building 8 transmission lines with voltage of 400 kV, the construction of three new stations of 400/110 kV and expansion of successive 6. At present, in Poland there is a surplus of production capacity, which is a very important safety margin (National Report The President of the Energy Regulatory Office in Poland, 2015).

Ensuring production capacity in power plants require continuous investment in the expansion of existing plants (eg. new units in the largest Polish power plants "Bełchatów", 858 MW, "Kozienice", 1000 MW, "Ostrołęka" 1000 MW, "Opole" 2x900 MW, "Jaworzno" 910 MW), and works on the construction of new objects, such as building a nuclear power plant in Poland.

Fig. 3 shows the investment plans for new generation sources as well as outgoing of the existing ones till the end of year 2028.

Figure 3: Producers' investment plans 2028.



Source: National Report, 2015

4. Conclusions

Marc Ellsberg in the book "Blackout" presents a vision of massive failure in the European power system (Elsberg, 2012). Similarly, the film-makers of quasi-documentary "American Blackout" show what can happen in the US if country would be out of electricity for 10 days. America on the brink of disaster, total chaos and need for outside help (American Blackout 2013). After watching the movie viewers have been asking when exactly the failure occurred. Analysing all the failures in power systems one can wonder if the vision presented by writers and directors is only the one loved by the public of the science fiction genre. Such failures are more and more often thought. Chernobyl or Fukushima theoretically should not happen. Things like human error, weather anomalies, damage to the equipment, etc. are the causes of failure, which is often beyond our control.

However, there is a very large group of factors that may in the future lead to a serious threat to the energy security of the country. These include things like liberalization of the energy market, which is related to the admission of entities which are often not prepared to act in such a complex structure, the separation of energy production, transmission and distribution, the perception of investment processes in a short period of time, the introduction of a competitive market, which very often leads to a reduction of costs (investment, employment). Because of its strategic position in the economy of the country, the energy market should be very strictly regulated and managed by the government. In Poland, a very important role plays the Energy Regulatory Office (URE), established in 1997 as a central body of government administration, which regulates the Polish market for electricity and gas in accordance with state policy. Development and implementation of appropriate long-term energy policy in the financial, organizational and investment sectors, significantly increases the resistance of the power system on the occurrence of major system failures (Łukasik, Olczykowski, 2007).

A co-operation between countries, especially in the UCTE (Union for the Coordination of Transmission of Electricity) also has a significant influence for the safety of the National Power System Since 1999, Polish Power Grid SA as a transmission system operator is part of the UCTE. There has been the development of cross-border connections (international), hugely contributing to the energy security of Poland.

In recent years, new factors that could cause failures of electrical power systems appeared. They result, among others, in terrorist threats and attacks against information system's

operators. In July 2016 in one of the interviews, the director of the Department of Audit and Security of Polish Power Grid, Łukasz Kister said: "Every day our ICT networks are tested, on every day we have from several hundred to several thousand samples of various kinds of attacks or the attempts to scan input ports". Because of growing worldwide threats of cyber-attacks, at the beginning of June 2016 Polish Power Grid signed a letter of intent on bilateral cooperation in the area of energy infrastructure security with the Center for Energy Security NATO (Energy Security Centre of Excellence).

In modern power systems advanced works on the new network structures are carried out. Introducing of the intelligent electricity network to Smart Grid, one of whose tasks is to actively participate in the reconstruction of the power system after a system failure of a blackout type is a good example here.

The modern energy is facing a very long list of problems. Overcoming these problems is the basis of energy security of the country. The globalization of the world economy, next to its threats is also a cornerstone of the joint actions to ensure the continuity of supply of energy to customers.

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THE ANALYSIS OF TAX LICENCE CONSEQUENCES ON GLOBAL BUSINESS ENVIRONMENT

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Abstract. Recently, every new coming year brought countless amendments in laws regarding the global business environment. Those were constant changes in the income tax rate, tax levy increase and social security contribution, changes in audit tax reporting, advance payments, long term assets depreciation. Moreover, an unexpected amendment - a tax licence, which was first introduced in 2015 for the tax period of 2014. The adopted tax license, in terms of a minimal tax, is a rate that every legal entity has to pay compulsory for every tax term. A tax license is defined by taxpayer's annual turnover differing for taxpayer and non-taxpayers. However, this is a tax, for which companies did not earn money. This means, that if a business declares a loss in its tax return or declares an income tax that is lower than the tax license rate according to the categories, the entity has to pay the tax license anyway. However, if the entity declares income tax according to the license rate, it will not have to pay the tax license. The adoption of a tax license should lead to a more fair taxation system of the business entities, which are avoiding tax payment on a long-term basis. Globalization and wider entrepreneurial existence underlines the influence of tax licence on business and general tax duty.

Keywords: income tax, tax license, global business environment, globalization, business entity

JEL Classification: G32, F65, H25

1. Introduction

Cieľom príspevku je analyzovať vplyv daňovej licencie v praxi podnikateľských subjektov, jej úhrady, od jej zavedenia. V novele zákona o dani z príjmov je prezentovaná ako nový daňový nástroj, ktorý bude motivovať spoločnosti túto minimálna daň platiť a štátu prehľadnejšiu kontrolu, aby sa predchádzalo daňovým únikom a daňovým podvodom. Aby spiace, resp. neaktívne spoločnosti zanikli.

Metodika. Pri spracovaní príspevku bol použitý materiál z domácej a zahraničnej odbornej literatúry, rôznych finančných, informačno-hospodárskych portálov a popisné metódy. Vzhľadom na skutočnosť, že informácie musia byť spracované úplne, prehľadne a spoľahlivo v každej účtovnej jednotke, je potrebná ich analýza, komparácia, indukcia, ktoré budú konkrétne využité na základe jednotného účtovného jazyka, aby priniesli obraz budúceho smerovania účtovnej jednotky.

2. Zmeny v podnikateľskom prostredí

Každý rok prináša pre podnikateľské prostredie zmeny. Či už je to zmena pre živnostníkov alebo väčšie subjekty, avšak každý podnikateľský subjekt sa snaží na trhu uspieť a udržať si stabilnú pozíciu v konkurenčnom boji globálneho podnikateľského prostredia. Podnikateľské prostredie je ovplyvňované mnohými faktormi, pričom k najdôležitejším patria daňové zákony (Ďurinová, 2014). Premieňa vstupy do podniku za účelom výroby (výkonu) na výstupy vo forme výnosu, tržieb alebo zisku. Každý podnikateľ sa snaží dosiahnuť optimálnu hospodárnosť a efektívnosť za účelom požadovanej ekonomickej reality, a tým je predovšetkým dosahovanie zisku. Efektívnosť podnikateľských činností predstavuje silnú konkurenčnú výhodu a vytvorenie výhod perspektívne vedie k dlhodobému úspechu (Kajanová, 2015). Podľa mnohých štúdií konkurencia je zdrojom efektívnosti a generuje benefity pre zákazníka (Zemanovičová, 2010). Je to motivačný faktor globálnej úspešnosti podnikov, či už ide o malé, stredné alebo veľké podniky. Avšak podnikateľské prostredie na Slovensku je veľmi nestabilné. Ak chce podnikateľský subjekt uspieť, musí dobre poznať svoje vnútorné prostredie, pretože môže dochádzať k zhoršujúcej sa finančnej situácii vzhľadom na množstvo legislatívnych zmien v SR za posledné roky, ktoré musí podnik aplikovať vzhľadom na predmet podnikania. Preto podnik musí robiť dôležité opatrenia, aby sa nezhoršilo jeho finančné hospodárenie. Riadenie v premenlivých podmienkach súčasnej globalizovanej spoločnosti je veľmi ťažké (Poniščiaková, 2015).

Rok 2014 doniesol dvanásť najväčších zmien pre podnikateľov, hlavne pre právnické osoby v oblasti daní. Vymenujem len niektoré:

- a) zavedenie daňovej licencie,
- b) zmena odvodovej povinnosti dane z podnikateľskej činnosti sa z 23 percent znížila v roku 2014 na 22 percent,
- c) straty sa budú môcť odpisovať iba štyri roky a len rovnomerne – doteraz bolo sedem rokov,
- d) zmena hranice pre platenie preddavkov podnikateľských subjektov,
- e) zmena v dodaní starých záväzkov,
- f) zavedenie mikro účtovných jednotiek,
- g) zmeny v DPH – zavedenie kontrolného výkazu, ktorý sa bude podávať v ten istý deň ako daňové priznanie k DPH,
- h) vyššie zdravotné a sociálne odvody a pod.

Efektívnosť dane z pridanej hodnoty je diskutovaná v príspevku autorov Šlahor a Barteková (Šlahor a Barteková, 2015).

3. Zavedenie daňovej licencie

Daňovou licenciou sa rozumie minimálna daň, po odpočítaní úľav na dani a po zápočet dane zaplatenej v zahraničí, ktorú platí právnická osoba – daňovník za každé zdaňovacie obdobie. To znamená, že daňovník je povinný ju platiť za každé zdaňovacie obdobie, hoci vykázal:

1. daňovú povinnosť nižšiu ako je stanovená výška daňovej licencie,
2. nulovú daňovú povinnosť,
3. daňovú stratu.

Čiže daňová licencia je minimálna výška dane, ktorú podnikateľ zaplatí za to, že podniká. Ak daň z príjmu bude nad úrovňou daňovej licencie, zaplatí daňovník daň z príjmu, ktorá mu

vyšla. Ak daňová povinnosť – daň z príjmu - vypočítaná v daňovom priznaní je nižšia ako stanovená výška licencie, znamená to, že určenú výšku dane daňovník musí povinne zaplatiť, ak aj vykáže daňovú stratu.

Výška daňovej licencie, ktorú musí daňovník platiť, závisí od ročného obratu daňovníka a od toho, či daňovník je, alebo nie je platiteľom dane z pridanej hodnoty (ďalej DPH) k poslednému dňu zdaňovacieho obdobia. Daňové licencie determinujú aj dopad týchto zmien na výsledok hospodárenia malých a stredných podnikov (Srovnalíková, 2015). Aktuálny pohľad na daňový systém a daňové licencie poskytujú aj autori Kramárová, Gregová, Cisko (Kramárová a kol., 2014). Daňová licencia sa prvýkrát platila za zdaňovacie obdobie roku 2014 v roku 2015.

Table 1: Výšky daňových licencií

Daňovník (podnikateľský subjekt)	Výška daňovej licencie v €
neplatiteľ DPH s tržbami do 500-tisíc eur	480
platiteľ DPH s tržbami do 500-tisíc eur	960
subjekt s tržbami nad 500-tisíc eur	2 880

Source: Zákon o dani z príjmov, 2016

Dôvodom, prečo vznikla v SR povinnosť platiť daňovú licenciu je, že existovalo veľa spoločností, ktoré navonok vykázali daňovú stratu alebo veľmi nízku daňovú povinnosť, takže by neplatili daň z príjmu alebo platili iba malú čiastku. Práve týmto opatrením chcela vláda docieľiť, aby plynuli do štátneho rozpočtu finančné prostriedky aj od podnikateľov, ktorí nevykazovali svoju skutočnú daňovú povinnosť.

Daňovú licenciu platí:

1. Daňovník – podnikateľ, ktorý bude podnikat' celý rok zaplatí plnú výšku daňovej licencie;
2. Daňovník, ktorý však bude podnikat' menej ako 12 mesiacov v roku, zaplatí daňovú licenciu v pomernej výške v závislosti od počtu mesiacov podnikania v zdaňovacom období;
3. Daňovník, ktorý bude počas roku v priemere zamestnávať aspoň 20 % zamestnancov so zdravotným postihnutím z celkového počtu zamestnancov, tomu sa výška daňovej licencie sa zníži na polovicu;
4. Podnik, ktorý bude môcť poukázať 2 % daň, a to z celej výšky zaplatenej daňovej licencie.

Daňovú licenciu neplatia: živnostníci, občianske združenia, verejné obchodné spoločnosti, nadácie, novovzniknutí daňovníci (s výnimkou právneho nástupcu daňovníka zrušeného bez likvidácie), rozpočtové a príspevkové organizácie, spoločnosti v konkurze a likvidácii, politické strany, štátom uznané cirkvi, spoločenstvá vlastníkov bytov, štátne fondy, vysoké školy a neziskové organizácie poskytujúce všeobecne prospešné služby, podnikatelia prevádzkujúci chránenú dielňu.

Plateniu daňovej licencie sa vyhnú len nové podnikateľské subjekty, ktoré budú v prvom roku podnikania oslobodené. Predpokladá sa, že tieto subjekty sú na začiatku v strate. Podľa Ministerstva financií zavedenie daňových licencií má byť jedným z opatrení v boji proti daňovým únikom, daňovým podvodom. Je veľa podnikateľských subjektov, ktoré za predchádzajúce roky nezaplatili ani euro na daniach, pretože sú dlhodobo v strate. Zavedením daňovej licencie si tieto podniky pohoršia. Avšak tie podnikateľské subjekty, ktoré sú v zisku, z pohľadu dane z príjmu, ktorá sa znížila v roku 2015 na 22 %, odvedú nižšiu daň, pretože daň z príjmu v roku 2014 bola 23 %.

Zápočet daňovej licencie

Platbu za daňové licencie si môže podnikateľský subjekt odpočítať z daní, avšak najviac za tri roky za predpokladu, ak výška ich daňovej povinnosti presiahne sumu licencie. To znamená, že výška daňovej licencie na započítanie bude závisieť od kladného rozdielu daňovej licencie a daňovej povinnosti. Daňová licencia za rok 2014 sa dá započítať na daňovú povinnosť najneskôr v roku 2017. Doteraz však mohli podnikatelia si stratu odpísať až sedem rokov a bolo na ich uvážení ako rýchlo túto stratu odpíšu.

Napríklad, ak Spoločnosť s ručením obmedzeným, ktorá je platca DPH, v roku 2014 dosiahla nulový výsledok hospodárenia, následne ďalšie tri roky dosiahla zisk, ktorý vždy presiahol hraničnú hodnotu pre vyrubenie minimálnej dane (daňový zisk vo výške nad 4 364 eur). Suma ušetrenej dane je následne uvedená v stĺpci „Zápočet licencie“.

V prípade, ak by spoločnosť nedosiahla aspoň v jednom z nasledujúcich troch rokov zisk nad hraničnú hodnotu 4 364 eur, nemá možnosť zníženia dane prostredníctvom zápočtu daňovej licencie.

Table 2: Príklad zápočtu daňovej licencie

Zdaňovacie obdobie	Základ dane v EUR	Daňová povinnosť podľa skutočných výsledkov spoločnosti v EUR	Zápočet licencie v EUR	Minimálna daň v EUR (daňová licencia)	Daň na úhradu v EUR
2014	0	0	-	960	960
2015	6 000	1 320	360	960	960
2016	7 000	1 760	600	960	1 160
2017	8 000	1 760	0	960	1 760

Source: Bošková, 2014

Daňová licencia a preddavky na daň z príjmov právnickej osoby

Ak sú zaplatené preddavky na daň za príslušné zdaňovacie obdobie podľa § 42 zákona o dani z príjmov **vyššie ako daň** vypočítaná v podanom daňovom priznaní za príslušné zdaňovacie obdobie a súčasne táto daň je (finančná správa SR, 2016):

- **vyššia** ako daňová licencia, **kladný rozdiel** medzi zaplatenými preddavkami a daňou po zápočte daňovej licencie sa **použije na budúce preddavky**, alebo sa na základe **žiadosti daňovníkovi vráti**,
- **nižšia** ako daňová licencia, **kladný rozdiel** medzi zaplatenými preddavkami a minimálnou výškou dane sa použije na **budúce preddavky** alebo sa na **základe žiadosti daňovníkovi vráti** a súčasne **kladný rozdiel** medzi daňovou licenciou a daňou **bude možné započítať**.

Ak daňovník je s. r. o. a vznikol v roku **2012**, je **platiteľom DPH** s obratom **nižším ako 500 000 €**, uplatňuje si zdaňovacie obdobie kalendárny rok. Z podaného daňového priznania k dani z príjmov za zdaňovacie obdobie roku 2013 vplynula daňovníkovi povinnosť platiť **štvrtročné preddavky** na daň vo výške 1 000 eur. V rokoch 2014 a 2015 nastali skutočnosti uvedené v nasledujúcej tabuľke.

Table 3: Príklad na započítanie daňovej licencie, ak daňovník platil preddavky

Popis / Rok	2014	2015
Vypočítaná daň	350	1 850
Splatná daň (min. vo výške daňovej licencie) v €	960	1 240
Zaplatené preddavky na príslušné zdaňovacie obdobie v €	4 000	-
Zápočet preddavkov na daňovú licenciu (kladný rozdiel vypočítanej dane a daňovej licencie) v €	610	-
Daň na úhradu (daňový preplatok) v €	(3 040)	1 240
Započítateľná daňová licencia v €	610	0
Započítaná daňová licencia v €	-	610

Source: finančná správa SR, 2016

V roku 2014 zaplatil daňovník preddavky na daň z príjmov právnickej osoby 4 000 eur. V daňovom priznaní vypočítal daňovú povinnosť vo výške len 350 eur. Podľa § 46b ods. 1 a ods. 2 zákona o dani z príjmov je povinný platiť daňovú licenciu vo výške 960 eur. Keďže zaplatené preddavky sú vyššie ako vypočítaná daň (4 000 eur > 350 eur) a taktiež je táto daň nižšia ako daňová licencia (350 eur < 960 eur), preddavky sa použijú na úhradu splatnej dane, resp. daňovej licencie (960 eur).

Kladný rozdiel medzi zaplatenými preddavkami a minimálnou výškou dane (daňovú licenciu) sa použije na budúce preddavky alebo sa na základe žiadosti daňovníka vráti. V našom prípade ide o sumu 3 040 eur.

Kladný rozdiel medzi daňovou licenciou a vypočítanou daňou (610 eur) bude možné započítať v rokoch 2015, 2016 a 2017.

V roku 2015 predstavovala vypočítaná daň sumu 1 850 eur. Časť presahujúca daňovú licenciu je vo výške 890 eur a je možné na ňu započítať daňovú licenciu platenú v roku 2014 (610 eur). Splatná daň daňovníka v roku 2015 bude vo výške 1 240 eur.

Účtovanie daňovej licencie

Daňovú licenciu ako minimálnu daň zaúčtuje účtovná jednotka pri uzavretí účtovných kníh v súlade s § 73 ods. 1 postupov účtovania na účet 591- Splatná daň z príjmov z bežnej činnosti na analytických účtoch podľa výšky daňovej licencie.

V súvislosti so zavedením daňovej licencie nebola do Opatrenia MF SR č. 23054/2002-92, ktorým sa ustanovujú podrobnosti o postupoch účtovania a rámcovej účtovej osnove pre podnikateľov účtujúcich v systave podvojného účtovníctva v znení neskorších predpisov (ďalej len „postupy účtovania“) doplnená žiadna osobitná úprava účtovania, čo sa týka zaúčtovania tohto účtovného prípadu.

Výška splatnej dane z príjmov, resp. daňovej licencie pri uzavretí účtovných kníh sa účtuje na ľarchu účtu 591 – Splatná daň z príjmov so súvzťažným zápisom v prospech účtu 341 – Daň z príjmov.

Table 4: Účtovanie daňovej licencie v podvojnóm účtovníctve

P. č.	Účtovný doklad	Účtovný prípad	€	MD	D
1.	ID	Predpis splatnej dane z príjmov vo výške daňovej licencie	480	591	341
			960	591	341
			2 880	591	341
2.	VBÚ	Úhrada splatnej dane z príjmov vo výške daňovej licencie	480	341	221
			960	341	221
			2 880	341	221

Source: Upravené podľa KAJANOVÁ, J., ÖLVECKÁ, V. and SAXUNOVÁ, D., 2016

Poukázanie zaplatene daňovej licencie

Daňovník, ktorý bol povinný zaplatiť daňovú licenciu, je oprávnený vyhlásiť v lehote na podanie daňového priznania, že podiel zaplatenej dane sa má poukázať ním určeným prijímateľom podľa § 50 ods. 4 zákona o dani z príjmov.

Daňová licencia a zmena zdaňovacieho obdobia v roku 2014

Daňovník, ktorý v kalendárnom roku 2014 **mení zdaňovacie obdobie** z kalendárneho roka na hospodársky rok, platí daňovú licenciu podľa § 46b zákona o dani z príjmov za **zdaňovacie obdobie ukončené dňom predchádzajúcim dňu zmeny** spolu s daňovou licenciou za bezprostredne nasledujúce zdaňovacie obdobie.

Oblasť transferového oceňovania je bližšie popísaný v príspevku L. Ondrušovej (Ondrušová, 2016).

4. Výsledky

Globálne podnikateľské prostredie na Slovensku prechádza rôznymi vývojovými etapami počas svojej existencie. Musí nielen čeliť nepredvídateľným udalostiam, je vystavené globálnemu ohrozeniu, ktorému ju zahŕňa legislatíva, ale robiť neustále operatívne rozhodnutia, aby sa podnikateľský subjekt nielen udržal na trhu.

Nastanú však situácie, keď:

- podnik prináša kladný výsledok hospodárenia, teda vykazuje sústavne za sebou v účtovných obdobiach, ktoré za sebou nasledujú zisk, znamená to, že platí aj daň z príjmov z podnikateľskej činnosti, odvádza daň z pridanej hodnoty, zaplatí daň z motorových vozidiel v riadnom čase, vyplatí mzdy zamestnancom a odvedie daň z príjmu z miezd, príspevky na poistenie do sociálnej poisťovne a pod.,
- podnik vykazuje za niekoľko účtovných období stratu, neplatí dlhodobu daň z príjmu z podnikania, žiadnu činnosť nevykonáva, hoci majú povolenie na podnikanie, ani nie je v likvidácii. Z pohľadu štátu dá sa povedať, že takéto subjekty boli dôvodom zavedenia daňovej licencie. Mnohí podnikatelia si nechávali firmy, ktoré reálne nefungovali, predovšetkým pre náročnosť jej zrušenia. Bolo pre nich jednoduchšie každý rok podávať prázdne daňové priznanie, ako firmu zrušiť (podnikam.webnoviny.sk),
- na Slovensku sú malí podnikatelia – s obratom do 500 tisíc eur, ktorí tvoria najväčšiu časť podnikateľského prostredia. Ich základ dane je nízky, tým sú nízke aj odvody dane z príjmu, alebo žiadne ak sú v strate, ale plnia si svoje povinnosti v podobe odvodov a príspevok do poisťovní, štátneho rozpočtu a pod. Pre tieto subjekty môže byť výmera daňovej licencie likvidačná.

A naozaj sa tak stalo, kedy po zavedení daňových licencií z analýzy spoločnosti CRIF – Slovak Credit Bureau vyplýva, že po roku 2014 bolo vyhlásených 407 konkurzov. Do konkurzu sa dostalo aj 30 firiem, ktorým bola najskôr povolená reštrukturalizácia, avšak táto nebola úspešná. Z celkového počtu 407 konkurzov ich bolo 336 vyhlásených na majetok právnických osôb a 71 na majetok fyzických osôb – živnostníkov. Najvyšší počet bankrotov bol opätovne vo veľkoobchode a maloobchode; oprave motorových vozidiel a motocyklov, a to hlavne v Bratislavskom kraji. Naopak najmenej konkurzov bolo vyhlásených v Trenčianskom kraji (www.cribis.sk, Cribis Univerzálny register).

Analýza vplyvu daňovej licencie na podnikateľské prostredie v rokoch 2012 – 2015:

Table 5: Vplyv daňovej licencie na podnikateľské subjekty

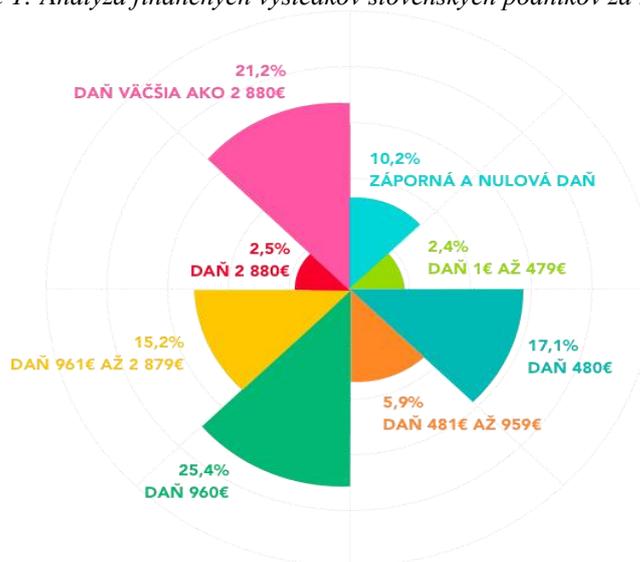
Rok	Zaniknuté spoločnosti	Podiel zaniknutých na celkovom počte spoločností	Novovzniknuté spoločnosti	Podiel novovzniknutých na celkovom počte spoločností
2012	4 152	2,26 %	20 409	11,09 %
2013	4 004	1,91 %	27 204	12,95 %
2014	6 152	2,76 %	13 283	5,95%
2015	7 218	3,06 %	12 766	5,41 %
	21 526		73 662	

Source: www.finstat.sk, 31.8.2016

Z tabuľky vyplýva, že naozaj v rokoch 2014 a 2015 bol najvyšší počet podnikov, ktoré zanikli. Podľa štatistických údajov je to 34 % z celkového počtu, ktoré zanikli za štyri roky. Novovzniknutých subjektov bol najväčší počet v roku 2013. V roku 2015 bolo takmer 60 % zaniknutých podnikov mladších ako desať rokov, čo oproti roku 2012 predstavuje o viac ako 15 %, takže táto daň „zo straty“ má výrazne negatívny vplyv pre začínajúcich podnikateľov na trhu (www.finstat.sk).

Nasledujúci graf analyzuje finančné výsledky slovenských podnikov za rok 2015 podľa najnovších zverejnených účtovných závierok 184 465 slovenských firiem.

Figure 1: Analýza finančných výsledkov slovenských podnikov za rok 2015



Source: <http://www.finstat.sk/>, 2016

Otázky financovania sú špeciálnou oblasťou podnikateľských subjektov, ktoré si vyžadujú samostatný priestor pre uskutočnenie dôsledných analýz a štúdií. Mechanizmy inovatívneho financovania sú spracované aj autorkou D. Saxunovou (Saxunová, 2015).

5. Conclusion

Vláda sa v Programovom vyhlásení zaviazala, že daňové licencie od roku 2018 zruší. Možno je to už neskoro pre niektorých podnikateľov, ktorí museli svoju činnosť skončiť, pretože daňovník musel daňovú licenciu povinne platiť bez ohľadu na jeho situáciu po skončení zdaňovacieho obdobia, teda finančného roka.

Veľa spoločností v prvých rokoch svojej činnosti dosahuje stratu alebo veľmi nízky zisk, takže pre tieto spoločnosti je daňová licencia negatívnou skutočnosťou, s ktorou sa však musia

vyrovnať. Preto na túto zmenu doplatili hlavne niektorí začínajúci podnikatelia, hoci za prvé zdaňovacie obdobie boli oslobodení od platenia, ale jeden rok bol pre nich málo, aby si vybudovali stabilné podnikateľské prostredie, prenikli na trh a udržali sa na ňom.

Zavedenie daňovej licencie vzbudilo dojem, že každý podnikateľský subjekt musí platiť aspoň minimálnu daň do štátnej pokladnice, a tak nemôže dôjsť k daňovým únikom. Toto opatrenie má však negatívny dôsledok na malé spoločnosti, pretože subjekty s veľkými tržbami platia iba minimálnu daň a ničia malých a drobných podnikateľov.

Acknowledgment

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DIMENSION OF INNOVATION IN ENTERPRISES

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Abstract. The current phenomena of globalization is reflected in national economies and companies by increasing competitive pressures. Maintaining and growth and competitiveness has become the primary task of management of all companies, because competitiveness at all levels is a prerequisite for prosperity, but sometimes of mere survival. Competitiveness, which is in the current market environment the basic attribute of the success of any enterprise, is causing constant pressure to improve and implement radical changes in all the contexts in which it is located. One of the most important factors of competitiveness, which refers mainly to the development of the globalization of innovation, which are generally considered to be an accelerator of the economy. The globalization of markets create for small and medium enterprises in Slovakia, a new dimension of competition. So far, the achieved business results are showing in new condition as no longer satisfactory. The company, which wants to have a long-term prosperity, must abandon the strategy of short-term local success and must to build targets to ensure its existence and prosperity in an environment of global competition. New trends in evolution of the global economy are directly related to the business and enterprise, and strongly affect them. Traditional approaches, models, methods, procedures and work processes of companies achieve their extreme possibilities and are unable to respond flexibly to new, dynamically changing conditions. Many companies in Slovakia are gradually transferring to the management, which is characterized by high flexibility, applying modern management methods such as project and process management, a radical change of processes through reengineering or a gradual improvement in business administration by Kaizen application.

Keywords: innovation in enterprises, global economy, methods, procedures and work processes, innovative potential, innovative projects

JEL Classification: O30, O31, O32,

1. Innovation strategy

In recent years, managers of some companies have started to deal with monitoring the best practices of successful companies which they usually draw up into the general rules and innovative methods. Although it is good to looking for the inspiration from the best innovators, suitable is to find own way of promoting the innovation in own company without copying others. Real innovators apart from other companies have the ability to create business system that supports continuous innovation, while the focus is also given to research of personal and knowledge characteristics of people for business (Kozubikova, et. al., 2015). The success of implemented innovation is based on the personality of founder of the company as well as in

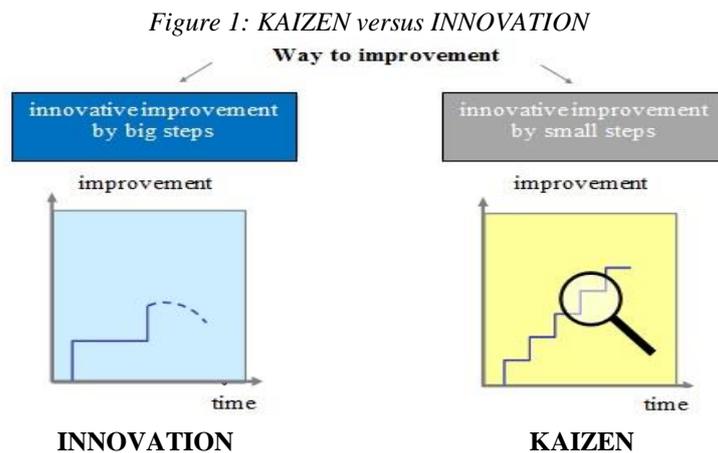
talented employees, but also on the knowledge of the customer needs, on the knowledge of innovative methods, on the trend in the relevant field, as well as on the technology and materials but also on the courage to experiment. Currently, we can state that the success of company does not depend only on the optimization of existing processes, but the success may be achieved by innovation of each business activity. Wealth and success companies have achieved by looking for a new breakthrough solutions and opportunities. ***The world of productivity is replaced by the world of creativity.*** The world of the perfect planners, economists and optimizer are replaced by new professions such as innovative engineer, innovator of business, thinking innovator or innovation managers. In innovation is not necessary to looking for only revolutionary technical solutions. For success is important technological lead and generation of technical changes on the product. Lot of companies have excellent products which are made by excellent technology. But these products often have one, but significant error - customers do not buy them. They do not see the reason why they should buy them. ***The value for the customer, this is what distinguishes innovation from ordinary changes.*** Innovation brings the benefits to the customer; it is not only the results of scientific and technological development. Innovation is especially response to the emergence of new business opportunities. The innovation must lead the company to create the competition uninteresting for customers by its innovative business solution. Successful innovation is based on the knowledge of the evolution of systems, correct define of contradictions, on the managing of psychology and philosophy. Innovation must mainly join up processes of sales and marketing, development, production, corporate resources and their organizations. Until now, most organizations were focused on the strategy of low cost (Rajnoha & Lorincová, 2015). But the era of low costs is over. Companies must develop their competitiveness by combination of innovation and methods for rationalize the organization of work and increase productivity. The question of strategic orientation becomes a key factor of competitiveness and success of the company. The phase of definition of the strategic orientation is the narrow place in many companies (Niklewicz-Pijaczyńska & Wachowska, 2014). However companies which are able to systematically and quickly copying this stage by good methodology, build to them a big competitive edge. The basic assumption for the commercial success of company in a global market is **innovation management** which is a dynamiting factor for the company. (Košturiak, 2008)

2. Kaizen and innovation

In the new society that is full of knowledge and information is gradually creating a new management philosophy KAIZEN - a gradual improvement of processes. This management method is applicable across the spectrum of companies, regardless of their size, structure and sector in which they operate as well as the nature of their processes. KAIZEN is a suitable and well-to-use tool for identification and analyse business problems related to low labour productivity, unsystematic management or inefficient work. KAIZEN improves the work and is a carrier of the added value in the comprehensive scale of values. This tool of modern management was created in Japan and is opposed to changes or improvements by using large measures for example large investments and innovations which have their own place and value in improving of business performance.

KAIZEN is a change for the better (KAI-change, ZEN-good, better). All activities which optimize standards such as thinking oriented to process lead to improve. Because as first it is necessary to improve the process and only then we may expect better results (Nadanyiova, 2014). It is contrast thinking in comparison with western managers who are focused only on results.

Innovations are widely seen as significant dramatic changes that follow technological advances or establishment of the newest management concepts or production technique in business practice. KAIZEN compared with innovation is often un-dramatic and its results are rarely immediately visible, while KAIZEN is a continuous process, innovation is generally one-time phenomenon. **KAIZEN are long-term, sustained, continuous changes for better and innovations are dramatic changes in a short time which mean a higher investment and higher risk. (fig. 1)**



Source: Hraskova, 2009

Applying KAIZEN in business practice needs only a simple conventional technology because it uses tools and processes which are focused on care of customers, quality improvement, automatization and mechanization of processes, creative teamwork, just-in-time, improving labour productivity, development of new products and so on.

On the other side, innovations often require perfect technologies and large investments. Innovations are one-time event, but their effects gradually eroded under effect of strong competition and decline of standards. Today it is not enough to reduce costs and slimmed business processes. Companies must create continuous and effective flow of innovation in area of their sales, marketing, product, processes and thinking. Invest to KAIZEN means invest in people. **Strategy of KAIZEN is focused on people while innovations are focused on technology and capital in the company.** The main aim of application of KAIZEN into the business practice is gradual improvement of business processes through saving the costs, time, material and personnel. Following table number one shows the comparison of main criteria's which are applied into the business practice by KAIZEN or innovations.

Table 1: The comparison of main criteria's

Criteria	KAIZEN	INNOVATIONS
effect	long-term, un-dramatic	short-term, dramatic
pace	small steps	big steps
changes	gradually and constantly	sudden and transient
access	collectivism, group efforts, systemic approach	rugged individualism, individual ideas and efforts
focused efforts	people	technology
timeframe	continuous, increase	intermittent, not increase
participation	everybody	a few selected people
pulse	know-how	new inventions, new theories
practical requirements	minimum investment, but a lot of effort to maintain	high investment, little effort to maintain

Source: own processing

Gradual improvement of business processes is a long-term, permanent and continuous change for better which running continuously in small steps in KAIZEN. Except the fact that these gradual changes are better accepted by employees of company, this process is also associated with lower investment and risk. Any improvement is following by creation of standards which secure its retention. After the stabilization follows another improvement and whole process is repeated. (Masaaki, 2004)

3. Research of innovation performance in Slovakia

The European Commission has published a report of assessment of innovations "**European Innovation Scoreboard 2015**", which provides a comparative assessment of the research and innovation performance in Europe. The report notes that the impact of the economic crisis are visible in several EU Member States, which show declining innovation performance. The report analyses eight innovative areas, such as human resources; open, excellent research system; finance and support; business investment; linkages and entrepreneurship; Intellectual Property; innovators and economic effects. Totally were assessed 25 indicators and the main source of information were data from Eurostat and OECD.

EU Member States were grouped into the four performance groups based on the average innovation performance. Among the leaders of innovation have been included countries such as Denmark, Finland, Germany and Sweden. Slovakia was included in the group of "modest innovators". The most innovative countries have a balanced innovation system in all of innovation areas. During last eight years EU has improved its innovation performance - average annual growth of innovation performance of EU has achieved 1 % (2007 - 2014). The largest increase was recorded in countries such as Latvia, Malta and Bulgaria. Report states that the innovation gap among EU Member States is only slowly narrowing and innovation performance has fallen in thirteen EU states, mainly in Romania, Cyprus, Estonia, Greece and Spain. When we look at non-EU countries, Switzerland has confirmed its position as the overall innovation leader by overcoming all EU Member States. South Korea, US and Japan have achieved better innovation performance like a EU, in a global context. These countries overcome the EU especially in indicators of business activities such as R&D expenditure in the business sector, joint public-private publications, PCT patents, as well as in education like a proportion of the population with completed university education. Innovation performance of Slovakia among 2007 - 2014 totally increase (decrease was recorded only in 2010 and 2013). The relative performance compared to the EU has greater fluctuations but in longer timeframe there has been a significant increase. The relative innovation performance in relation to the EU achieved in 2012 69 % of the performance of the EU, but in 2014 it was only 64 %. Except for in innovation area of human resources Slovakia is below the EU average in all innovation areas. (Košturiak, 2008)

Expenditures on research and development among to the key factors which lead to economic growth and to the long-term prosperity associated with competitive advantage.

Results of the evaluation classified countries of the European Union into the four groups based on innovation performance as follows:

1. **Innovation drivers** – innovation performance of these countries is significantly above the average of other countries – Denmark, Finland, Sweden and Germany,
2. **Innovation followers** – innovation performance is lower than innovation performance of innovation leaders, but still is higher than the average of European countries – Belgium, France, Netherlands,

3. **Moderate innovators** – innovation performance of these countries is slightly below the average of other countries – Czech Republic, Spain, Italy,
4. **Catching – up countries** – innovation performance of these countries is significantly below the average of other countries - Slovakia, Poland and Hungary.

In general we can state that at present Slovak Republic achieves the average innovation performance of EU countries. Vice versa annual growth of innovation performance of Slovakia is long-term above average of Community, which can be considered as a positive message. Slovak government adopted a number of key documents by which Slovakia should overcome this situation and converge towards to developed countries of the EU. In this sense it has been created Innovation Strategy of SR and its main objective in the area of innovation is that **innovation will become one of the main tools of development of knowledge economy and achieving high economic growth of the Slovak Republic. The aim is achieve the level of the most developed economies of the EU.**

3.1 Functional management concept and KAIZEN

Application of management system by KAIZEN is often associated with worries about that this management concept, way of thinking and acting are so Japanese that it is not possible to use them in conditions of other countries. However this system uses the number of methods and techniques with success and thanks this fact is clear that a number of them are not new and this system has been used several years in many countries. Application of management system KAIZEN does not require any specific technique but it use best practice including changes in corporate culture in which employees are on the first place and technology itself is on the second place. The comparison of functional management concept with KAIZEN is captured in following table number two:

Table 2: Comparison of functional management concept with KAIZEN

	Functional management system	KAIZEN
Objectives	<ul style="list-style-type: none"> ▪ short-term ▪ focus on immediate results 	<ul style="list-style-type: none"> ▪ long-term ▪ continuous improvement
Basic asset	fixed capital	human capital
Responsibility	for partial operations	for process, project, improvement proposal
Management	hierarchical	horizontally
Indicators of success	economics	added value for the customer
Company' indicators	economic analysis	analysis of processes, projects, improvement proposal
Orientation	on consequences	on causes
Management	managers, experts	groups, team
Environment in company	competition between functions	teamwork, individual work
Motivation	individual motivation	collective motivation

Source: own processing

As is clear from the above facts, the whole approach of KAIZEN is based on the PDCA (Plan, Do, Check and Carried out). All activities which KAIZEN uses for eliminate the waste in the company must be integrated in PDCA cycle and they must towards continuous improvement. The overall effectiveness of this management system is reflected in increased productivity, elimination of waste, improving labour performance and creation of added value.

One of the tools of management concept KAIZEN, which help to eliminate surpluses, losses and irregularities in the company, is called "**Five S**" (S 5) - it is a checklist of good management

by which company is able to greater policy, efficiency and discipline in the workplace. It is derived from the Japanese words **Seiri**, **Seiton**, **Seiso**, **Seiketsu** and **Shituke** (categorize, compare, clean, standardize and systematize). Thanks to this tool we know eliminate "**Three M - (3MU)**" - **Muri** (surpluses), **Muda** (losses, waste) and **Mura** (deviations) in business practice. These three words symbolize activities which company must rid of if it wants achieve sensible solution and higher efficiency. Learning to see, it means continuous reduction in waste such as overproduction, waiting, transportation, excess inventory, movement, errors, and lack of communication, un-ergonomic working methods and unnecessary processes and so on. (Masaaki, 2004)

4. Conclusion

Nowadays of business environment implementation of KAIZEN brings gradual improvement for companies, especially in improving of quality, productivity, reducing inventory and cost for business processes. Every of innovative company focuses its corporate strategy on the innovations that have various and different natures. We can innovate processes, products, working conditions, work organization, technology and production processes, but all must lead to continuous improvement.

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THE IMPACT OF GLOBAL FINANCIAL AND ECONOMIC CRISIS ON WOOD AND WOOD PRODUCTS MARKET IN SLOVAKIA

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Abstract. This paper deals with the analysis of the impact of global financial and economic crisis on wood and wood products market in Slovakia in the years 2008 – 2013. It describes the nature of the latest economic and financial crisis, its development and impacts. The analysis is based on the market indicators development for the main categories of wood products defined by the FAO classification of forest products. The impact of economic crises on the market is examined through the analysis of development of production, consumption, trade and prices of selected wood and wood products in the respective period. Demand for solid wood products is mostly driven by the development of specific sectors such as the construction or industrial production, while paper and paperboard market is dependent on the development of gross domestic product per capita. The results indicate that due to the different economic drivers at specific product markets there were differences in the development of market with the solid and composite wood products and the products of pulp and paper industry identified. In particular, fuel wood production increased by 24%, while production of sawnwood decreased by 50%, wood based panels by 30% and paper and paperboard by 21%. Similarly, consumption of pulp dropped by 8%, paper and paperboard by 15%, while the drop in consumption of industrial roundwood was by 27% and sawnwood by 57%.

Keywords: global economic crisis, wood and wood products, consumption, price trend

JEL Classification: Q02, Q20, Q27

1. Hospodárska kríza a trh s drevom

1.1 Hospodárska a finančná kríza

Kríza je prirodzenou súčasťou vývoja ekonomiky, javom v hospodárskom cykle, v ktorom sa striedajú fázy expanzie, ale aj recesie. Je javom, počas ktorého sa trh snaží o očistenie od neefektívneho. Poslednú krízu je predsa možné pokladať za výnimočnú a nebezpečnú. Globálna kríza od svojho vzniku prešla rôznymi podobami. Hypotekárna kríza sa postupne z USA preniesla takmer do celého sveta, Slovensko nevyvímajúc. Dopad hospodárskej krízy pocítila domáca ekonomika najmä vzhľadom na jej otvorenosť a vysoký podiel exportu. Celosvetová recesia zasiahla lesné hospodárstvo a spolu s ním aj ostatné súvisiace odvetvia ako drevospracujúci priemysel a celulózno-papierenský priemysel.

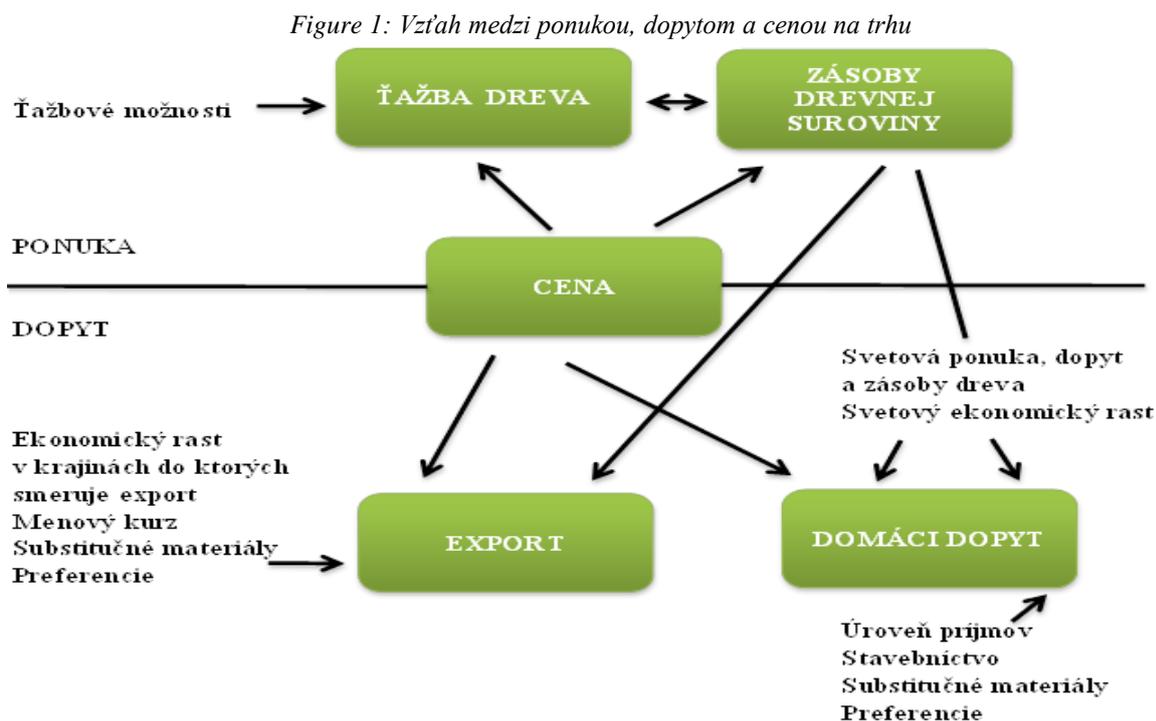
Vzájomným pôsobením ponuky a dopytu trhový mechanizmus permanentne dynamizuje hospodársky život. Hospodársky vývoj nemá len pravidelný vzostupný vývoj, ale dochádza

k fluktuácii oboma smermi, smerom nahor, aj smerom nadol. Dlhodobé hľadisko poukazuje na celkovo vzostupný trend hospodárskeho vývoja, pričom jednotlivé fázy vývoja sa počas neho striedajú (Helísek 2002). Každá ekonomika prechádza obdobím striedania relatívneho rastu a relatívneho poklesu. Toto kolísanie v priebehu časového obdobia sa nazýva hospodársky cyklus. Tradične sa hospodársky cyklus z globálneho hľadiska člení na štyri základné fázy – recesia, dno, rast a vrchol (Lisý *et al.* 1999). Stúpajúca globalizácia spôsobuje, že dôsledky a vplyvy kríz sa ľahko prenášajú aj do iných štátov. Tým vzniká celý rad procesov, ktoré zasahujú do ekonomiky. Do roku 1971 predstavoval Bretton Woodsky menový systém záruku istoty a stability jednotlivých mien. Počas doby jeho fungovania dochádzalo k devalváciám menových kurzov. Situácia sa skomplikovala po jeho rozpade a svet sa s pojmom finančnej a hospodárskej krízy začal stretávať čoraz častejšie (Vodička 2009).

Podľa Kindlebergera, 1989 predstavuje finančná kríza okamžité, prudké a ultracyklické zhoršenie väčšiny, prípadne všetkých finančných ukazovateľov (cena aktív, úrokové sadzby, solventnosť firiem a pod.). Najkomplexnejšia definícia, ktorú zostavil ekonóm Musílek, 2004, ktorý poníma krízu ako výrazné zhoršenie väčšiny finančných ukazovateľov. Ich zhoršenie sa odzrkadľuje nedostatkom likvidných prostriedkov vo finančnom systéme, rastom volatility výnosových sadzieb finančných inštrumentov. Vo vyspelých krajinách sveta nadobúda finančná kríza podobu menovej alebo bankovej krízy. V rozvojových krajinách je typická kombinácia týchto kríz. Finančná kríza, ktorá začala v USA sa postupne začala presúvať aj do ostatných prosperujúcich, ale najmä otvorených štátov sveta. Väčšina ekonomík pocítila jej prejavy formou hospodárskej krízy. Otvorenosť krajín, predovšetkým orientácia na export, bola v tomto prípade pre väčšinu týchto štátov najdôležitejším faktorom zlyhania. Hospodárska kríza totiž vznikla výrazným poklesom dopytu, čo spôsobilo pokles exportu produkcie do iných krajín. Finančná kríza vzniká a zasahuje finančný trh, hospodárska kríza má vplyv na celé hospodárstvo v krajine, na makroekonomické ukazovatele (produkcia, spotreba, inflácia, nezamestnanosť, atď.). Vznik finančnej krízy môže byť lokálny, ale v súčasnom svete, ktorý je charakterizovaný vysokým stupňom globalizácie, môže prerásť v krízu hospodársku. Táto následne môže ovplyvniť výkonnosť celej svetovej ekonomiky. Finančná kríza má spravidla kratšiu dobu trvania ako kríza hospodárska, čoho dôvodom je väčší rozsah a tiež dopady majú hlbšie a rozsiahlejšie následky. Počas finančnej krízy dochádza k veľkým výkyvom a zvratom na finančných trhoch, tieto majú negatívny vplyv na menový a hospodársky vývoj. Kríza finančná je často prejavom vznikajúcej krízy hospodárskej (Kohout 2009).

1.2 Trh a obchod s drevom

Každý trh má svoju charakteristickú štruktúru. Problematike trhu s drevom a výrobkami z dreva sa venovali viacerí autori. (Glavonjić *et al.* 2015, Kalamárová *et al.* 2014, Loučanová *et al.* 2015, Parobek *et al.* 2016a, Šupín 2001, Šupín 2014). Trh je sociálna inštitúcia a jeho úlohou je koordinácia ponuky a dopytu. Úlohu koordinátora na trhu zohráva cena. Ponuka na trhu je reprezentovaná predovšetkým odvetvím lesného hospodárstva (LH). Strana dopytu hlavne odvetvím drevospracujúceho priemyslu (DSP). Analýza konkurencieschopnosti a materiálových tokov na trhoch LH a DSP je v súčasnosti spracovaná mnohými autormi (Paluš *et al.* 2015, Parobek *et al.* 2016b, Parobek *et al.* 2016c). Uvedené odvetvia sú produkčnými odvetviami národného hospodárstva. Sú zložené množstvom podnikov, ktoré produkujú statky týchto odvetví prostredníctvom nasadenia výrobných faktorov (Paluš, 2010). Pôsobenie rôznych faktorov určuje vzťah ponuky a dopytu. Základná filozofia tohto vzťahu je znázornená na obrázku 1.



Source: vlastné spracovanie

Model vychádza z predpokladu, že krajina sa orientuje na export, je otvorenou ekonomikou, disponuje dostatočnými zdrojmi drevnej suroviny, cena dreva je odvodená od svetovej ceny, produkcia dreva v krajine je vyššia ako domáca spotreba a ekonomické faktory nemajú vplyv na veľkosť ťažby. Na spotrebu dreva a výrobkov z dreva v najširšom zmysle pôsobí súbor sociálno-ekonomických faktorov. Ich vývoj formuje dopyt po produktoch a službách v nábytkárskom, polygrafickom, tlačiarenskom priemysle a v neposlednom rade v stavebníctve. Tieto odvetvia vytvárajú dopyt po drevnej surovine, sú to priami odberatelia výrobkov prvostupňového spracovania dreva (Paluš, 2006). Medzi najdôležitejšie faktory, ktoré majú za následok zmeny na trhu a ovplyvňujú celkový vývoj patria ekonomický rast, stavebný sektor, demografický vývoj, kurzové zmeny.

Cieľom príspevku je zhodnotenie vplyvu hospodárskej krízy na trh s drevom na Slovensku. Vychádzajúc z analýzy vývoja ekonomiky na Slovensku počas krízového obdobia a analýzy vývoja produkcie, spotreby, obchodu a cien na trhu s drevom počas krízy sa zhodnotil vývoj trhu a cien dreva a výrobkov z dreva.

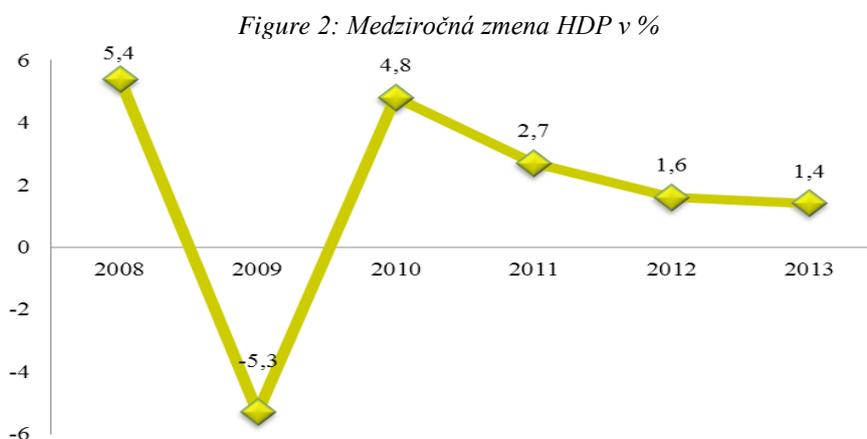
2. Metodický postup

Pre zhodnotenie vplyvu hospodárskej krízy na trh s drevom na Slovensku bolo potrebné získať a analyzovať štatistické dáta makroekonomických ukazovateľov. Údaje boli získané z internetových zdrojov NBS, ŠUSR a MFSR. Vývoj jednotlivých ukazovateľov počas krízového obdobia rokov 2008 – 2013 bol graficky spracovaný a následne bol zhodnotený priebeh a definované možné príčiny vývoja vybraných ekonomických ukazovateľov. Následne bol zhodnotený vývoj produkcie, spotreby obchodu a cien dreva (priemyselné a palivové drevo) a základných výrobkov z dreva (rezivo, dosky na báze dreva, celulóza, papier a lepenka) za roky 2008-2013, ktoré boli získané z dostupných databáz organizácií UNECE a FAO.

3. Vplyv hospodárskej krízy na trh s drevom

3.1 Prehľad vývoja ekonomiky na Slovensku počas krízového obdobia

Dopadom krízy sa nevyhla ani Slovenská republika so svojou ekonomikou. Vypuknutie krízy v roku 2007 bolo v čase, kedy sa ekonomika Slovenska nachádzala na vrchole hospodárskeho cyklu. Táto skutočnosť sa prejavila v počiatočnom krízovom období, kedy Slovenská republika vstúpila do recesie s veľmi dobrými východiskovými podmienkami. Práve táto pomohla Slovensku preklenúť nátlak počiatočnej fázy recesie. Výrazný výpadok exportu bol dôvodom prepadu hospodárstva, ktorý sa prejavil zníženým tempom rastu HDP, zvýšenou nezamestnanosťou a mal výrazný dopad na celý priemysel. Zníženie vývozu znamenalo pre podniky obmedzenie výroby. Medzi najviac postihnuté odvetvia priemyslu patrili automobilový a strojársky priemysel. Slovenská ekonomika, vďaka dobrým výsledkom v predkrízovom období, nepocítila v roku 2008 až také výrazné zhoršenie ekonomickej situácie. To sa prejavilo až v prvom kvartáli roku 2009, kedy sa situácia začala dramaticky zhoršovať. HDP výrazne klesol, čo medziročne predstavovalo hodnotu -5,3 % (obr.2). Tento pokles bol významne ovplyvnený aj plynovou krízou a dramatickým znížením investičnej aktivity. Nasledujúci rok znamenal pre slovenskú ekonomiku pomerne rýchle oživenie. Keďže patrí medzi otvorené ekonomiky je ovplyvňovaná dopytom na zahraničných trhoch. Táto skutočnosť bola dôvodom pre hospodársky rast v roku 2010 na 65,91 mld. €. Vývoz vzrástol najmä v oblasti automobilového priemyslu a to prevažne do krajín EÚ, keďže Slovensko tam exportuje až 95 % svojho vývozu.

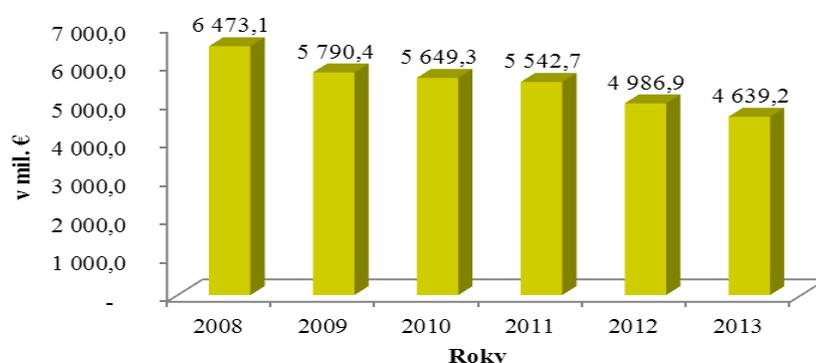


Source: vlastné spracovanie

Rok 2011 sa vyznačoval miernym spomalením, ale naďalej pretrvával rast HDP. Tento rok priniesol vládny balíček úsporných opatrení, čo pravdepodobne malo za následok spomalenie rastu na 2,7 %. Ďalšou príčinou bolo zvýšenie cien tovarov a služieb. Ako hnacia sila rastu však naďalej pretrváva vo forme investícií a zahraničného obchodu. Je možné povedať, že slovenská ekonomika sa po krízovom období zotavila rýchlejšie ako ktorákoľvek z krajín eurozóny, dokonca v niektorých mesiacoch roku 2010 viedla v rebríčkoch a dosahovala najlepšie výsledky. Približne 8 % z celkovej tvorby HDP tvorí ročne odvetvie stavebníctva. Keďže je jedným z hlavných odvetví, ktoré vplyva na trh s drevom, má výrazný vplyv na vývoj spotreby jednotlivých sortimentov dreva. Významný je práve vplyv na spotrebu sortimentov mechanického spracovania, v prevažnej miere sa jedná o ihličnaté drevo, kde sa až 70% spotrebuje práve v tomto odvetví. Z vývoja stavebnej produkcie zobrazenej na obrázku 3 je

možné predpokladať, že so znižujúcou sa produkciou v stavebníctve počas sledovaného obdobia, sa bude znižovať aj spotreba dreva a výrobkov mechanického spracovania dreva.

Figure 3: Vývoj stavebnej produkcie v bežných cenách



Source: vlastné spracovanie

3.2 Vývoj ukazovateľov na trhu s drevom a výrobkami z dreva počas krízy

Rok 2008 znamenal pre Slovensko začiatok hospodárskej krízy, ale vstúpila do nej v priaznivom ekonomickom stave, v dôsledku čoho ťažba surového dreva dosiahla vyššie hodnoty. Produkcia predstavovala 9 269 tis. m³, z toho domáca spotreba bola na úrovni 7 787 tis. m³, exportovalo sa 2 289 tis. m³ a importovalo 808 tis. m³ surového dreva. Celkový vývoj produkcie surového dreva má klesajúcu tendenciu. Len v roku 2010 sa produkcia zvýšila na 9 599 tis. m³, pričom maximum bolo dosiahnuté v roku 2005 (10,2 mil. m³), ktoré bolo vyprodukované v dôsledku spracovania kalamitného dreva po víchrici v novembri 2004. Surové, prevažne ihličnaté drevo je v prevažnej miere vyvážané do krajín EÚ. Export surového dreva dlhodobo narastá aj napriek hospodárskej kríze. Tá mala vplyv na množstvo dovezeného dreva, ktoré sa v krízovom roku 2009 znížilo na 565 tis. m³ a výraznejšie oživenie importu (nárast o 451 tis. m³) bol zaznamenaný až v roku 2011, ako dôsledok nízkej ceny. Zatiaľ čo začiatok krízového obdobia a roky 2008 a 2009 zaznamenali slabnúci dopyt po drevných produktoch, rok 2010 priniesol oživenie a s ním nielen zvýšenie dodávok, ale aj zvýšenie cien surového dreva. V roku 2010 sa zvýšila cena exportu až o 60 % oproti roku 2009. Na druhej strane cena importu má počas krízového obdobia postupne klesajúcu tendenciu, až sa následne s príchodom roku 2013 sa vrátila späť tesne pod hladinu 50\$ za m³ surového dreva.

Hospodárska kríza sa azda najväčšou mierou podpísala na vývoji ukazovateľov ihličnatého reziva. Tento pokles spôsobil prudký pokles stavebnej produkcie, ktorý pretrvával počas všetkých rokov sledovaného obdobia. Produkcia od začiatku sledovaného obdobia až po rok 2013 klesla na polovicu. Spotreba má rovnako klesajúcu tendenciu a rok 2013 v porovnaní s prvým krízovým rokom zaznamenal ešte výraznejší prepád o 61,56 %. Export smeroval do krajín EÚ a jeho objem v roku 2008 a 2009 dosahoval hodnoty do 400 tis. m³, v nasledujúcich dvoch rokoch sa začal zvyšovať. Najväčšie objemy ihličnatého reziva boli dovezené z Ruska a Ukrajiny. Minimálne množstvo sa importovalo v roku 2009, ale s dosiahnutou najvyššou cenou za m³ reziva. V nasledujúcich rokoch sa cenová hladina ustálila a nevykazuje žiadne známky extrémnych výkyvov.

Najväčší podiel na produkcii aglomerovaných materiálov majú drevotriekové dosky (DTD), pričom celková produkcia mala mierne klesajúcu tendenciu. Najväčší medziročný pokles bol zaznamenaný v roku 2010, a to o 20,55%. Spotreba vo väčšine prípadov preyšuje

produkčné možnosti, preto je potrebné drevné materiály dovážať za relatívne stabilnú cenu, ktorá od roku 2008 zaznamenala výraznejšie medziročné zvýšenie len v roku 2009 a to o 14,6%. Najväčším problémom celulózového priemyslu je skutočnosť, že všetky celulózky na území Slovenska sú orientované na spracovanie listnatého dreva. Nedostatok suroviny je kľúčový problém, ktorý sa aj napriek vysokým cenám musí riešiť dovozom drevnej hmoty prevažne z Maďarska, Českej republiky, Ukrajiny a iných krajín. Produkcia v celulózovom priemysle aj napriek uvedeným skutočnostiam zostáva relatívne a stabilná v rozmedzí 600 – 700 tis. m. t. za rok. Hospodárska kríza sa v tomto prípade nepodpísala v žiadnej miere. Okrem roku 2012 je spotreba celulózy rastúca oproti produkcii, čo bolo riešené importom, ktorého objem sa medziročne zvyšoval až do roku 2012. Export celulózy predstavuje ročne približne jednu štvrtinu z celkovej produkcie. Jeho objem má mierne stúpajúcu tendenciu, okrem roka 2013, kedy nastalo k nízkemu poklesu. Cena dovozu a vývozu v krízovom roku 2009 zaznamenala dramatický pokles. Nasledujúce roky sa ceny snažili vrátiť späť na pôvodné hodnoty a opäť nasledoval mierny medziročný pohyb smerom nadol.

Produkcia v papierenskom priemysle je priamo závislá na HDP a ten zaznamenal s výnimkou roku 2010 každoročný pokles. Produkcia papiera v roku 2010 začala následne klesať a v tomto trende pretrvala počas celého sledovaného obdobia. Od roku 2008 klesla postupne do roku 2013 o 200 tis. ton ročne. Výrobcovia papiera pôsobiaci na Slovensku sa orientujú v prevažnej miere na export. Kým v roku 2008 tvoril 57 % z celkovej produkcie tlačiarensky a písací papier, v roku 2013 sa tento podiel zvýšil na 76 %. Toto zvýšenie, respektíve zníženie produkcie ostatného papiera a lepenky je odzrkadlenie uzatvorenie výrobnjej prevádzky spoločnosti Smurfit Kappa, ktorá sa zameriavala práve na výrobu lepenky.

4. Conclusion

Počas sledovaného obdobia rokov 2008 – 2013 ovplyvnila globálna hospodárska kríza trh s drevom a jeho ukazovatele. Produkcia počas obdobia recesie klesla takmer u všetkých sortimentov s výnimkou palivového dreva, ktoré naopak zaznamenalo nárast o 24 %. Najväčší medziročný pokles bol u väčšiny sortimentov zaznamenaný v roku 2012, s výnimkou dosiek na báze dreva, ktoré vďaka výraznému zníženiu produkcie DTD a vlákňitých (DVD) dosiek, medziročne poklesla v roku 2010. Taktiež v priemysle zameranom na produkciu celulózy nastávali len mierne výkyvy a celkovo je možné konštatovať, že zostala na rovnakej úrovni. Najvýraznejší prepád zaznamenalo rezivo, až o 50%, listnaté a ihličnaté sa podieľali na tomto prepade približne v rovnakej miere. Výrazné zmeny v exportnom množstve boli zaznamenané v papierenskom priemysle, kde objem vzrástol o 176 %. Ešte výraznejšie sa hodnoty objemu vývozu sa zaznamenali pri sortimente palivového dreva a drevnej štiepky.

Spotreba na Slovensku poklesla u všetkých sortimentov, najmenší pokles zaznamenal priemysel celulózy, len 8 %, nasledoval papier s poklesom 15%. Výraznejšie sa recesia prejavila na spotrebe surového dreva, kde bol prepád 27%. ale predovšetkým reziva, s celkovým poklesom až 57%. Vplyv hospodárskej krízy sa teda na vývoji trhu s jednotlivými sortimentami a výrobkami z dreva podpísal v rozličnej miere. Je však potrebné poznamenať, že okrem vplyvu krízy majú negatívny dopad na obchod s drevom aj iné faktory. Jedným z nich je aj zmena klímy, ktoré môžu ovplyvňovať objem náhodných ťažieb. Na území Slovenska sa jedná najmä o vetrové kalamity a napadnutia podkôrnym hmyzom. Negatívny trend na trhu s drevom má počiatky už od roku 2007, kedy sa v dôsledku práve vetrových kalamít nahromadilo množstvo drevnej hmoty.

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A DISCUSSION OF RANDOM GRAPH MODELS UTILIZATION FOR GLOBAL STRATEGIC MANAGEMENT

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Abstract. Social network analysis has received a lot of attention recently due to globalization tendencies around the world. One part of this methodology is so called complex networks which have very close to real-world networks. The study of complex networks is active part of scientific research in many areas such as mathematics, economy, sociology, biology, and others. To study such large graphs, it is possible to use random graphs models. Such graphs are usually described by some rules that define probability of structure or properties of such graphs. It is believed that studying random graphs can help understand the structure of large graphs or complex networks. Social networks have its own importance for companies and also for organization of public administration. There is possibility to obtain information about relationship not only between individuals but also between organizations. Organizations can obtain resources, information or knowledge from their external connections. This paper focus on Random Graph models and its utilization within area of global strategic management which is important in international strategies. Analysing of real network is very difficult due to possibilities of observing such network and gaining information about relationships inside the network. Random Graph models are suitable for modelling similar situation within different situation. This paper will demonstrate how Random Graph models can extend viewing on global strategic management for multinational or international strategy.

Keywords: strategic management, public administration, social networks, random graph

JEL Classification: L14, D85, H83

1. Global Strategic management

Global strategy involves three areas: global, international and multinational strategies (Lasserre, 2012). More or less it is a fact that the company that deals with this way of strategy they want to expand into foreign countries.

Many barriers fell for trading in international commerce for the last decades and, therefore, many companies began to use global strategies as their advantage. As it happens, there are companies that are benefiting from a global market more and other on the contrary and similar situation also appears on the national level, where some countries are more focused on international trade, and some less.

A good mastery of the global strategy is necessary to understand the development dynamics in the area of global strategy and global industries in the last few years. Among the companies active in this area arise from different bindings exist in the context of subcontracting or other relationships.

Multinational companies must deal with many issues, such as relations with government authorities, relations with other economic entities, etc. The basic decision-making problem is production of own products. For a company is usually cheaper to produce their own product in any country where it is cheaper to manufacture (e.g. China) and most of the costs associated with building a brand is left in the hands of the parent company, rather than a manufacturing company. However, they may cause problems for example, with the renewing its contract with manufacture company in China or problems with various permits in this country. Another problem is the strategy on the various markets when for the e.g. US market applies different rules of strategy then for EU market when selling cars. Luxury brands usually have the same strategy for all markets. Establishing relationships with many different subjects must deal with these problems.

Global strategy has its specific benefits such as cost savings within your company, when one department can spread knowledge across the entire company. Higher production can cover costs and price per unit may be lower when higher volume production allows unit costs to be reduced. A particular advantage is easier recognition of global brand on the global market. Customer satisfaction can be seen as an additional benefit to the global strategy, the customer expects the same service, or the same product anywhere in the world. The costs of development are usually spread from one subdivision and it is possible to have a lower cost. The production is transferred to cheaper countries and thus it is possible to reduce costs for labour and input costs (Lasserre, 2012).

Globalization bears some disadvantages however. One of the disadvantages is a lower sensitivity for local products and brands. The costs of transport and logistics are usually quite higher due to the transportation of specific goods (heavy products etc.) around the world. Further increases the cost of communication or coordination of management within the corporation. It is a different way to communicate in every culture or country and this is necessary to learn and understand within corporations. Trading within the various countries bear the barriers within the trading in form of customs fees, taxes and other restrictions.

2. Social network analysis

Social networks and the analysis of the relationships (Barabasi & Albert, 1999), (Albert et al., 1999) is perceived as an important concept in many sorts of areas, from the public administration, sociology, management and also in the context of global strategic management (Lazega & Pattison, 1999), (Robins et al., 2005), (Strogatz, 2001). Analysis of the networks can be seen as organizational theory in these areas. Social network analysis is focused on the structure of relationships between individuals or organizations where the network is perceived as a complex of individuals associated by social ties. Some analyses focus on the theory of organization. For the last time, there are many studies that deal with relationships between the companies (Lazega & Pattison, 1999). There are studies whose area is focused on the key factors and indicators of organizations relations and this phenomenon has a growing importance as the relations gradually move from the dyads to sets of organizations, to networks. In the academic field appears the view that both business relationships as well as non-profit sector organizations strives for any cooperation in the framework of the different alliances as one of the possible ways to be more efficient and competitive. It is obvious that in today's globally connected world is such element of cooperation important, especially among those organizations that are trying to take some position on the global market.

There are several known techniques how to measure the properties of networks (Snijders, 2001) or relationships. These techniques are used in different ways to describe or understand certain characteristics of the network, relating to research questions:

- 1) Social behaviour is a complex process and stochastic modelling will allow us to capture both the regularity in the processes that are taking place throughout the network, as well as variability and we are able to model in details. By adding a small amount of randomness to the otherwise regular process may significantly change the output of the entire process. It is also very important to capture the stochastic process if we believe that this best reflects the processes that we are trying to model. Well-designed stochastic model will allow us to understand the uncertainty associated with the observation of outputs of different models, it is possible to learn something about the distribution of the possible outputs of the specific model.
- 2) Statistical models allow us to create judgment whether certain substructure in the network is in a given model commonly occurring or whether it occurs in this network with some probability. It is possible to create a specific hypothesis about the social processes that can create such structural properties of these processes.
- 3) The various social processes may have similar quality assumptions about structures in the network sometimes and can be detected only by using quantitative modelling. For instance, clusters can create networks of endogenous (self-organizing) structures, or through node-level effects (e.g. homophily). If we want to decide which of the processes is formed, then we need to create a model and the results determine which suits us.
- 4) The more complex data structures are in networks the more useful properly formulated models can be in achieving for effective representation of the data. It is clear that there are many deterministic approaches for the analysis of simple binary network, but many are not suitable or are too complex even for complicated data. In order to understand the development of the network, or the various structures in networks, models are a good solution.
- 5) Many long term issues in the analysis of social networks affects how the processes and structures combine to form the global pattern of the network. Without some kind of model is this very complicated. If we have a well-defined model for social networks, it is possible for such micro-macro gap well define and often thanks to simulations.

3. Random graph model

Recent research on networks has focused on those networks with skewed degree distribution (Albert et al., 2001), (Molloy & Reed, 1995), (Molloy & Reed, 1998). In the case we want to use the random graph model (Erdos & Renyi, 1966), we should use the following five steps. Most of the scientists focus on the last step, which is the estimation of parameters of the model and their interpretation, it is clear that it is necessary to make explicit choices that connect theoretical decisions to data analysis.

- 1) Each connection in the network is perceived as random variables. This step includes a stochastic basis with the set of fixed points. The combination of these points is then seen as a relationship that is created with a specific probability. It is not possible to perceive this as the principle of developing a relationship based on e.g. fashion etc. It is better to determine that we don't know much about the network and that we don't know much

about forming relationships that our model is not able to form perfect deterministic prediction and that the results will contain a certain noise that we are not able to explain.

- 2) Contingencies are defined by the hypothesis dependency among the network variables. Hypotheses represent local social processes that are capable of forming connections in the network. The connection can be independent of each other. People generate social connections independently on their previous connections or of their other social ties.
- 3) We create a hypothesis for the introduction of the particular form in the model. Each parameter corresponds with the configuration of the network which is a subset of the possible connections in the network. Such configurations are then referred as the structural characteristics of some interest, as for example is reciprocated ties. The model then represents distributions of the random graph, which is made up of local patterns represented by their configurations. The configuration is for example. simple connection between two points, the reciprocated connection may be another such configurations (in the directed graph). The parameters that are associated with each of these configurations in the analyzed graph can be included in the model.
- 4) Simplification of the parameters by using homogeneity, and other restrictions. Often it is necessary to limit the number of parameters, so we can define the model by better way. We ask whether it is possible to equated some of the parameters or put in the context of the other possible way. For instance, it is proposed that one parameter for reciprocity across networks, by assuming that the reciprocity parameters for each possible reciprocated tie parameter is similar to another
- 5) Estimate and interpretation of model and its parameters. The main focus for the creation of a model is to reach the estimation and interpretation of the model. However, this approach usually requires previous four points. This last step is very complicated if the modeled structure is complex and comprehensive, as in the case of real models. We use the advantages of statistical models often for the network when making estimates of the parameters as well as the estimate of uncertainty estimation model.

Creation of a random graph is done by taking a number of N nodes and links with each other, so that each pair of vertices i, j has a connecting edge with an independent probability p . However, if we want to examine models that are close to the real world problems we have to accept the fact that such simple model has certain weaknesses. One of them is the distribution of degrees in the chart, with which it is necessary to count just as in the real world problems.

Consider a vertex in a random graph. With some probability p is linked to each of the $N-1$ other nodes in the graph, and hence the probability of p_k that is assigned to the node with the binomial distribution:

$$p_k = \binom{N-1}{k} p^k (1-p)^{N-1-k} \quad (1)$$

Average degree of a vertex in network is $z=(N-1)p$, we can also write this as:

$$p_k = \binom{N-1}{k} \left[\frac{z}{N-1-z} \right]^k \left[1 - \frac{z}{N-1} \right]^{N-1} \cong \frac{z}{k!} e^{-z}, \quad (2)$$

where we know this distribution as the Poisson distribution. It was found that large random graphs have a Poisson degree distribution. This distribution of probability then presents such a model of the real-world problems. On the other hand, the random graphs have many different properties, partly caused by the fact that many of the behaviour properties is possible to quantify exactly. This leads us to ask an obvious question. It is possible to create a model that is comparable with the real situation and it is also exactly solvable? We show now that it is.

Suppose that we want to create a model of a large network and we know only its distribution and nothing else. Therefore, we have only properly normalized probability p_k that a randomly chosen node in the network has a degree k . It is possible to create a model of the network with the same distribution of degrees by using the following algorithm. Considering the number of N nodes and we assign to each a number k of stubs (i.e. connections without end) of other nodes, where k is a random number selected on the p_k distribution independently for each node. Now we select these stubs randomly in a pair and form so that we can create the edges between the vertices. This procedure creates a graph with the same distribution of nodes but it will be completely random. In other words, we've created graph that has a random form with the desired degree distribution.

The specific form of the random graph is exponential random graph model (ERGM) (Pattison & Wasserman, 1999), (Robins et al. 2007), (Wasserman & Pattison, 1996), which is well suited to the modelling of real-world networks and appropriate way avoids the limitations of traditional regression methodologies. ERGM provides special access to the study of formations over networks by using modelling endogenous dependencies that can shape the network with exogenous factors such as actor- or dyad-specific characteristics. Connections in the models ERGM are independent, resulting in the local configuration of networks.

ERGMs have the following form

$$\Pr(X = x) = \left(\frac{1}{k}\right) \exp[\sum_A n_A z_A(x)], \quad (3)$$

where X_{ij} is a random variable that represent a tie between nodes i to j . These connections are represented as adjacency matrix of $n \times n$ (where n is number of nodes in network). This matrix is denoted as \mathbf{X} and \mathbf{x} denotes a matrix of realized connections in the network. The A means different network configuration types. The $z_A(x)$ terms are model co-variates meaning the number of connections between nodes with some shared nodal characteristic, it could be e.g. the number of closed triads and so on. More on ERGMs model can be seen on (Kim et al., 2016).

4. Application

We present an example of real-world problem for outlining the significance for achieving for real-world network modelling. This example is taken from (Kim et al., 2016). The data was chosen from the Fortune 100 of 2005 database. The data is selected deliberately to predict the progress that followed in following years. The data contains a connection that have been established among the members of the boards of directors of US companies that belonged to mentioned ranking. Long-term research has shown that the concentration of members of such boards has great importance for the dissemination of information and for connections as well as in the context of global strategic management.

The result of this study is that the probability of connections between the two firms board is 1.4 percent (the density of the network is 0.014). The average number of degrees is 2.72. The

standard deviation of the out-degree is 1.57 and is higher than the value of the in-degree (1.33). A sample of the companies is rather heterogeneous in terms of making the connection (companies usually invites directors who are already in the boards of other companies) than from the standpoint of receiving the connection.

5. Conclusion

The aim of the paper is to provide new information on the possible use of a relatively new methodologies for data analysis that are appropriate for global strategic management. Formation of networks is now becoming critical social process that is controlled by many of the factory and that is gaining importance. From this point of view is an appropriate analysis of the use of selected methods that are designed for social networking.

ERGM methodology provide possibility to extend research even in global strategic management and in strategic research in many ways. ERGM is able to account for tie dependencies and allows precise analysis more precise analysis of data measured in any network. ERGM can be used to test theories of tie formation to establish empirical evidence of creating possible connections between actors. As it is clear that firms with more resources have more opportunities to form connections, their greater level of resources may lead to possibility not to create collaboration through alliances. Some researchers proposed an integration of both perspectives but some firms can create alliances because of their popularity in any different alliance or because of their history of alliances. It may be important to provide such analysis when we would like to know whether alliance will be established or not. ERGM has great potential to give us information about this network and about possibility for establishing any different connection.

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EVALUATION OF CITY BRAND IN THE GLOBAL ECONOMY: TECHNIQUES AND PERSPECTIVES

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Abstract. The article is devoted to the evaluation of the cultural brand of the city in its relationship with the inflow of investment capital into the city and its attraction for tourists and art dealers active in the market associated with this city. The article shows that the estimation procedure brands territories currently under-developed and need substantial revision. This article proposes a complex method of evaluating the cultural brand of the city in its relationship with the level of development of the art market, associated with the city. The evaluation methodology is a complex, which includes a modified estimation procedure for the analytic hierarchy process (AHP), the results of which are used to construct indicators of the modified technique of the Boston Consulting Group (BCG). The proposed method also uses peer evaluation procedures brand of the city, in particular, a modified technique of Kevin Keller. The evaluation results are interpreted using a modified method of McKinsey, a modified technique of Y & R and the modified technique breakthrough positioning. It is concluded that the cultural city brand has significant value and can greatly affect the attractiveness of the city for a variety of consumer groups, including the players and the art market, the market is clearly associated with this city and this contribution can be estimated using complex procedures.

Keywords: cultural brand of the city, globalization, the cultural value of the city brand, analytic hierarchy process, brand positioning.

JEL Classification: M31, O18, R58

1. Introduction

The 21st century is the century of intangible assets. It means that the level of brand development largely determines an effective development of territories and their contribution to the development of the country. The level can bring huge benefits to its creators and it's uniquely can be extended to the countries, regions and cities. Probably today no one will doubt in significant contribution of the brand to the competitiveness territories, cities and even countries. Furthermore, if we analyze the main competitive advantages of the city or country, we must remember that the levels of territories and their attributes analysis play an important role. Modern branding concepts of the areas reflected in the books of Simon Anholt (Anholt, 2009), Robert Govers (Govers, 2009) and Keith Dinnie (Dinnie, 2011). These authors created new branding direction based on the David Aaker's theories of brand leadership and creation of strong brand (Aaker, 2014). Therefore, in a modern society where intangible assets play a huge role in the different countries economies it's important to have a clear idea of the contribution of city's brand to the capital and competitiveness of the country (Keller, 2012),

because it's really difficult to determine country's competitiveness (Okárová, 2015). Branding is not possible without a well thought-out system of marketing communications (Šalgovičová, 2015) that requires the development of a "target customers" and "part-time marketers" (Kollar & Rebetak, 2015). However, in a real life branding of the areas leads to ambiguous results. For example, this can happen because of no clear understanding of the identity of places (as shown by Simon Anholt (Anholt 2009)) or problems with the identity of the potential consumers of the brand (Grešková & Kusá, 2015). These problems can lead to creation adverse selection. (Dengov & Gregova, 2015). Some problems with the situations when brand contradicts innovative behavior (Janoskova & Kral, 2015) or brand contradicts innovation culture may be. (Štetka, 2015) Note that in a global world branding of the areas must be carried out in line with economic policy (Gregova & Dengov, 2015) taking into account the financial risks (Michalikova-Frajtová & Spuchlakova, 2015) and using a wide range of financial instruments. (Kramarova & Valaskova, 2015). Thus, there is a need for an adequate instrument to assess the city's brand.

2. Valuation techniques of city brand

Brand valuation is a complex multidimensional process which includes consideration of both quantitative and qualitative parameters (Majerova & Gogolova, 2013). It should be noted that problems arise in the assessment of the brand from the beginning with the formalization of the quality characteristics, that makes, as noted by Sebastian Zenker (Zenker, 2011) the development and evaluation of the brand of the city is very difficult. Methodology to evaluate the city's brand value should take into account the qualitative and quantitative characteristics of the attractiveness of the area for all its potential consumer audiences, as well as the city's expenses to strengthen the brand and the implementation of cultural events, including aimed at creating an appropriate culture medium, attracting talent and enhance the art market. We should also note the need to consider financial indicators to evaluate the effectiveness of the establishment and development of the brand, the level of uncertainty and risk (Dengov & Tulyakova, 2015), the problem of adverse selection (Dengov & Melnikova, 2012), and, use when evaluating modern financial models (Misankova et al., 2014).

Major indices, characterizing the city brand value, are:

- The total budget of the city;
- The volume of attracted investments, including in a variety of cultural events and activities;
- Cost of culture development and art events;
- Costs of support the innovation sphere;
- Expenses for the formation of tourism infrastructure;
- The volume of funds raised by domestic and inbound tourism;
- The volume of tourist flow of the city;
- Evaluation of development of a segment of the art market, associated with the city;
- The costs of the cultural brand of the city information infrastructure;
- The number of active users of information cultural environment of the city, including all of its information art space.

It should be noted that not all indicators there is an objective statistics. All figures given above should be considered in the dynamics. It is supposed to use the rate of growth / decline of the analyzed indicators to ensure their weighting in relation to other components of the

evaluation. The combined characteristics of evaluation should be a weighted value. Coagulation parameters to be carried out with the help of the AHP.

It might be well to point out that quantitative characteristics of the brand of the city should be complemented by qualitative assessments of different types of brand consumer audiences and the degree of their loyalty. Thus, evaluation of the city brand value will be formed from the integrated quantitative component using dynamic statistical indicators of the city, as well as the qualitative component, taking into account the emotional evaluation of the brand.

The weights of all components of the significance of the city brand value is supposed to be evaluated by matrix methods clotting integrated vector characteristics of the brand (Herget, Petrů & Abrhám, 2015). The technique involves the assessment of quality (emotional) component of the attractiveness of the city for being implemented in the city branding activities, promotion of cultural sites and art spaces of the city, the perception and brand loyalty of the city all consumer groups.

Methods of assessing the value of the cultural brand of the city and the level of development of the relevant segment of the Russian art market can be built on the basis of modification of the following techniques:

- Analytic Hierarchy Process (AHP) (Saaty, 2008);
- Construction of the matrix of the Boston Consulting Group (BCG) (Lowy & Hood, 2004);
- Create GE/McKinsey matrix (Lowy & Hood, 2004);
- Evaluating brand Kevin Keller (Woon et al., 1999);
- Breakthrough positioning (Cagan & Vogel, 2013);
- Assessment of Y & R brand (Brand Asset Valuator) (Pein, 2003).

The combination of these modified techniques allows the development of such algorithm for estimating the values of the brand of the city, which will neutralize the disadvantages of all these approaches and get a complete picture of the contributions of all the important parameters and their combinations in the development of the city's attractiveness and value of its assets. The choice of these techniques, including the justified absence of obvious discrepancies in the axiomatic approach and basic methodological principles that allow them to effectively complement each other.

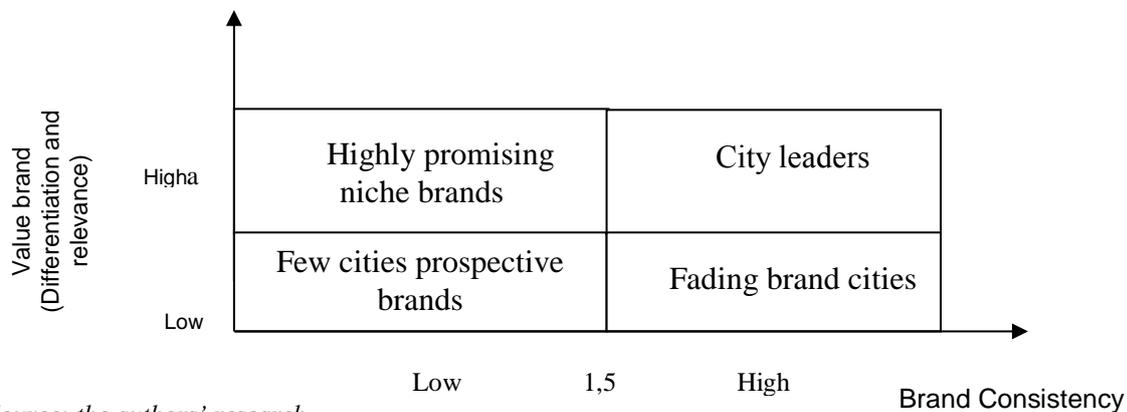
At the same time quantitative assessment of indicators of the city brand value insufficiently complete, moreover, largely brand has the emotional nature. Therefore, it is necessary to supplement the quantitative assessment of the values of the city's brand qualitative characteristic brand perception from different consumer audiences of the city.

Qualitative evaluation of the emotional component of the city brand value and its consistency can be prepared by one embodiment of the method for evaluating the value of K. L. Keller. This method can be used to obtain qualitative data due to the fact that it has a distinct advantages in the group of methods based on the ease and convenience of metrics.

The resulting evaluation of the city brand value by the method of the Boston Consulting Group adjusted for the value of the emotional response and evaluate the consistency of the brand as described by Kevin L. Keller, can be applied to the matrix Y&R power of city brand. The matrix power of city brand with the modified procedure allows to fall brand into one of the 4 categories on a plan Brand's value (Differentiation and relevance) – Brand Consistency: City Leaders, Strong Niche Brands, Unpromising Brands and Faded Brands. In accordance

with the position on the matrix Y&R can determine the perspectives of a possible city's positioning strategies. Methods of Y & R brand power of the city assumes division of all cities into four groups according to the power of their brands (see. Fig. 1).

Figure 1. Matrix brand power of the city by a modified method of Y & R



Source: the authors' research

So, for the development of unpromising brands of the cities can be realised as a positioning type „generic“ and during the development of a certain image attributes of the city brand, a positioning type „kitch“. Faded Brands need to focus on positioning type „kitch“. Highly promising brands can be developed as „kitch“ products and as breakthrough products. Brands of City Leaders must be developed in accordance with the breakthrough technology because it has a lot of chances of success breakthrough strategy.

Saint-Paul de Vence located at Côte d'Azur is a successful example of breakthrough positioning in view of possibilities of the art market. This place combines the romantic style of the medieval town with historic cemetery and modern «market place» of art (used creative concept of trade in arts, mainly paintings). Advanced auctions, art-banking technology and all the necessary attributes of the art infrastructure provide a technological component. This area attracts a significant number of well-known persons and effectively uses media and opinions leaders for its advancement.

Simon Anholt – the main editor and founder of the professional journal of national branding «Place Branding and Public Diplomacy» said: «Once you get an idea of the brand, and it is the most valuable from thing you can have. This provides a high value, the accuracy, reliability and trust the brand» (Anholt, 2009). Thus, one could argue that a successful brand provides opportunities for long-term increment of city's assets.

3. Conclusion

Undoubtedly strong brand of the territory influences its competitiveness. Attractiveness can be based on cultural dominant associated with development of local art market among other factors. Strong cultural city brands require prospective art market infrastructure. These principles can be a basis for developing a strong cultural brand of Saint-Petersburg.

Research on cities with strong cultural dominant and brands in some features similar to Saint-Petersburg's showed that Saint-Petersburg fell behind cities with more developed art markets. Thus coordinated efforts in developing art market and art spaces are needed even on the level of Russian economic policy.

Russian and foreign players can enter Russian art market through integrated art spaces of the cities. These spaces allow forming business connections among other Russian and foreign art spaces, even with such profitable as famous auction houses. It can be a basis for creation of informational platforms in order to attract investment in Russian and especially city-level art-projects. Crowdfunding platforms can be also developed here to support cultural initiatives and art-projects as well as other efforts to strengthen cultural brand of the city.

In this structure cultural, educational and other institutions in the city raise the cultural level of citizens, take part in promoting art-objects and focus perception of the city on them, implement programs dedicated to educating participant of art market and raising the level of their professional and economic knowledge and skills. The research conducted by the author shows how a strong city brand can be created as the result of such activities.

Thus, the brand can be developed under influence of the rise in popularity of art spaces in the city, activation of the art market players and people and institutions interested. The use of perfect art market model allows raising the level of popularization of Russian art associated with the city. Moreover, development of the strong cultural brand of Saint-Petersburg supports the trust in local art dealers and increases the activities among participants of local art market.

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DEPENDENCE OF SLOVAK ECONOMY GROWTH ON FOREIGN TRADE

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Abstract. Globalization has effected remarkably international trade and moreover, it resulted in the changes of market conditions in Slovakia. Big changes have been undergone in the foreign trade of the Slovak Republic since liberal market economy was implemented in Slovakia. Primarily foreign consumption resulted in the growth of the Slovak economy over past decades. How much the Slovak foreign trade depends on foreign demand was mainly demonstrated during the financial and economic crisis, in the year 2009 at extremely influenced foreign trade in Slovakia. Lowered foreign demand led to the decline of the exporting production, which was followed by the domestic consumption decrease resulting in the deepest plunge of GDP in the history of Slovakia. Recently Slovak economy has shown growth, which is in spite of worsened economic conditions in European Union, one of the biggest one in the EU. The objective of this scientific paper is to analyse structure of economic growth and real impact of domestic and foreign demand (export) on it. Contribution of export to GDP growth will also consider import intensity of exports, because Slovak economy has a big part of foreign added value (import) on total export of the country. This article identifies the key factors of interdependence between the foreign trade and GDP growth in Slovak economy and analyses their interaction. The research question is aimed at verifying the formulated hypothesis, whether Slovakia is extremely dependent on export of its production to foreign markets.

Keywords: export, import, foreign trade, economy growth, dependence

JEL Classification: F40, F43, F63

1. Ekonomický rast Slovenskej republiky

Ekonomický rast je základnou podmienkou na dosiahnutie ekonomického rozvoja, ktorý priamo súvisí so zvyšovaním životnej úrovne obyvateľov krajiny.

V posledných desaťročiach slovenská ekonomika prešla významnými zmenami. Boli to najmä transformácia z centrálne plánovanej na trhovú ekonomiku, implementácia reforiem, ale tiež vstup SR do Európskej únie a prijatie spoločnej európskej meny. Všetky tieto zmeny prispeli k udržateľnému ekonomickému rastu a zvýšili konkurencieschopnosť krajiny. Slovenská republika patrí v posledných rokoch medzi najrýchlejšie rastúce ekonomiky v Európe. (Gregová & Dengov, 2015).

Je zjavné, že rozdiely medzi rozvinutými krajinami nie sú vo všeobecnosti také veľké, ako rozdiely medzi regiónmi vo vnútri individuálnej krajiny. Zameranie na regióny je veľmi dôležité, pretože práve a jedine v nich je možné dosiahnuť reálny rozvoj, zvýšiť ich prosperitu, zlepšiť na seba nadväzujúce makroekonomické premenné (miera nezamestnanosti, miera rastu HDP, miera rastu cien) a tak zlepšiť výkonnosť ekonomiky na celonárodnej úrovni. (Stachová & Šuplata, 2013).

Globalizácia je proces, ktorý vytvára paralelne oboje príležitosti i bariéry pre udržateľný rozvoj hospodárstva štátu. Štát by sa mal usilovať podporovať obzvlášť príležitosti ovplyvňujúce alebo prispievajúce k rastu HDP krajiny. (Saxunová, 2015)

Určitá hospodárska politika je vhodná a účinná vtedy, ak má jednoznačné transparentné a stabilné pravidlá smerujúce k dlhodobému ekonomickému rastu, ktorý je hlavným cieľom hospodárskej politiky. (Melišek, 2008).

Duczynski spozoroval, že vysoko otvorené ekonomiky majú tendenciu rásť rýchlejšie ako priemer. (Duczynski, 2007).

Vývoj HDP má rôznu podobu v krátkom a dlhom období. V krátkom období je vývoj HDP ovplyvnený dopytovými faktormi – konečnou spotrebou domácností, výdavkami vlády, zahraničným obchodom alebo investíciami, no v dlhom období sú to ponukové faktory – práca, kapitál a technologický pokrok. Vplyv na ľudský blahobyt má skôr dlhodobý ekonomický rast. (Lábaj, 2009).

Pre ekonomický rast je potrebný aj kapitál, ktorý prichádza do krajiny cez priame zahraničné investície a podľa Nováčkovej priame zahraničné investície podporujú ekonomický rast krajiny a pozitívne ovplyvňujú príjmy verejných financií a zamestnanosť. (Nováčková, 2007). Wamboye and Mookerjee zistili, že priame zahraničné investície sú iniciátorom rozvoja finančného sektora, čo sa považuje za jeden z pozitívnych aspektov globalizácie. (Wamboye and Mookerjee, 2014).

Podľa výskumu Wongpiyabovorna z dlhodobého hľadiska existuje pozitívna korelácia rozvoja vo finančnom sektore a ekonomického rozvoja krajiny. (Wongpiyabovorna, 2016).

Základným ukazovateľom na meranie výkonnosti ekonomiky je hrubý domáci produkt. V nasledujúcej tabuľke môžeme vidieť hodnoty HDP v mil. Eur dosahované slovenskou ekonomikou pred krízou, počas krízového obdobia, až do roku 2015.

Ekonomický rast predstavuje relatívny prírastok, ktorý vyjadruje percentuálny podiel absolútneho prírastku HDP v danom období a dosiahnutej úrovne reálneho produktu v predchádzajúcom období.

Rast HDP Slovenskej republiky sa v roku 2008 podstatne spomalil a HDP v roku 2009 v dôsledku celosvetovej finančnej a hospodárskej krízy výrazne poklesol. V roku 2010 došlo k obnove úrovne HDP SR a tento vývoj hoci pomalším tempom pokračoval aj v rokoch 2011 – 2014, a potom v roku 2015 sa rast opäť zrýchlil, keďže HDP v bežných cenách sa zvýšil o 3,6 %. V roku 2015 dosiahol HDP Slovenskej republiky 78 070 mil. Eur.

Table 1: HDP v bežných cenách v mil. Eur a rast HDP v %

	2007	2008	2009	2010	2011	2012	2013	2014	2015
HDP mil. Eur	62 884,5	68 322,5	63 818,5	76 387,1	70 443,5	72 420,0	73 835,1	75 560,5	78 070
Rast HDP (%)	10,4	6,4	-5,4	5,1	2,8	1,5	1,4	2,5	3,6

Source: Štatistický úrad SR

1.1. Zdroje rastu ekonomiky

Zostavovanie špecifických zložiek HDP a súvisiacich ukazovateľov, napr. týkajúcich sa hospodárskej produkcie, dovozu a vývozu, domácej (súkromnej a verejnej) spotreby alebo investícií, môže poskytnúť hodnotný pohľad na hybné sily economickej činnosti.

Table 2: Štruktúra HDP v mil. Eur

	2011	2012	2013	2014
Spotreba domácností	39 667	40 868	41 083	42 010
Spotreba verejnej správy	13 078	12 981	13 401	14 242
Tvorba hrubého kapitálu	17 633	15 179	15 480	15 824
Dovoz výrobkov a služieb	60 711	63 807	66 147	66 647
Vývoz výrobkov a služieb	60 066	66 472	69 287	69 404
Čistý export	- 645	2 665	3 140	2 757

Source: Štatistický úrad SR

Z analýzy vývoja zložiek HDP z hľadiska výdavkov vyplýva, že výdavky na konečnú spotrebu sa v SR za posledné roky v objemovom vyjadrení zvyšujú. Za rovnaké obdobie sa tvorba hrubého kapitálu znížila najmä od roku 2012. Po slabšej výkonnosti exportu v roku 2011 od roku 2012 rast vývozu predstihuje rast dovozu.

Výdavky na spotrebu domácností v objemovom vyjadrení ďalej rástli a v roku 2014 predstavovali viac ako polovicu HDP. V roku 2012 sa tempo rastu výdavkov verejnej správy SR v objemovom vyjadrení spomalilo a v ďalšom období rokov zostáva táto miera zmeny relatívne stabilná.

V roku 2014 predstavoval podiel výdavkov domácností na spotrebu 55,6 % HDP SR, zatiaľ čo podiel výdavkov verejnej správy bol 18,8 % a podiel tvorby hrubého kapitálu zasa 21%.

Národná banka Slovenska v roku 2012 prvý krát zverejnila štruktúru rastu HDP, v ktorej použila rozklad rastu HDP na exportné trhy a HDP bez exportných trhov. (Národná banka Slovenska, 2012). Tento pohľad na rast ekonomiky vyplýva z vysokého podielu exportu a importu na HDP a odlišnej dovoznej náročnosti jednotlivých výdavkových kategórií HDP. V roku 2014 podiel exportu tovarov a služieb na HDP dosiahol takmer 92%, čo sa často nesprávne interpretuje, že zahraničný dopyt po našich tovaroch a službách tvorí takmer celý hrubý domáci dopyt. V skutočnosti je priamy vplyv exportu na tvorbe HDP výrazne nižší, keďže väčšia časť exportu sa nevyrába u nás, ale prichádza do ekonomiky SR zo zahraničia vo forme importu.

Podľa štatistiky OECD má ekonomika SR jeden z najvyšších podielov zahraničnej pridanej hodnoty (importu) na celkovom export krajiny. (OECD, 2015).

Import tovarov a služieb nie je zdrojom rastu HDP, ale slúži len na uspokojenie domáceho dopytu, alebo slúži ako vstup na domácu produkciu a následný export. HDP podľa výdavkových kategórií tvorí súčet zložiek domáceho dopytu a čistého exportu (rozdiel medzi exportom a importom tovarov a služieb). Takéto členenie vystihuje lepšie pohľad na vývoj HDP, pretože môžeme samostatne sledovať vplyv domáceho dopytu a zahraničného dopytu (exportu) na tvorbu HDP. Pri zmene v dopyte po našich exportoch automaticky dochádza aj k zmene v importoch, ktoré sú určené na produkciu exportne orientovaných tovarov a služieb a príspevok exportných trhov k rastu HDP už zohľadňuje aj dovoznú náročnosť exportov. Príspevok exportu k rastu HDP tak predstavuje len tú časť exportu, ktorý je vytvorený v domácej ekonomike.

Podľa údajov NBS je importná náročnosť exportu SR približne 60% a domáceho dopytu 31% (z toho importná náročnosť investícií tvorí 51%, konečná spotreba domácností má podiel 30% a spotreba vlády sa odhaduje na 7%). (Národná banka Slovenska, 2013).

Pokiaľ ide o štruktúru importu, podľa údajov NBS, viac ako 68% dovozu do SR je určeného na export, zvyšná časť v objeme približne 32% celkového importu sa spotrebúva v domácej ekonomike (z toho 18% konečná spotreba domácností, približne 12% investície a cca 1,3%

spotreba vlády). Pridaná hodnota (teda aj HDP), ktorá sa vytvorí v domácej ekonomike tak predstavuje v prípade exportu 40% a v prípade domáceho dopytu takmer 70%. (Národná banka Slovenska, 2013).

Podľa štatistík OECD Slovensko tiež ako malá krajina registruje vysoký podiel dovezenej hodnoty v doma spotrebovaných tovaroch a službách. Podiel dovezenej pridanej hodnoty dosahuje 52% a zostávajúcich 48% je pridaná hodnota vyprodukovaná domácou ekonomikou. Pritom takmer 100% dovezenej pridanej hodnoty je v tovaroch textilného a odevného, strojárskoho, elektrotechnického a automobilového sektoru. V chemickom sektore je dovezená pridaná hodnota v spotrebovávaných tovaroch vo výške až 90%, v potravinárskom a metalurgickom 70%, drevospracujúcom a papierenskom sektore 50%. Najmenšia pridaná hodnota dovezená zo zahraničia je v sektore podnikateľských služieb, bankovníctva a poisťovníctva (10%), doprave a spojoch (25%), veľkoobchode a maloobchode (35%). (Ministerstvo zahraničných vecí SR, 2013).

2. Zahraničný obchod Slovenskej republiky

Zahraničný obchod v súčasnosti patrí k najdynamickejšie sa rozvíjajúcim faktorom svetovej ekonomiky. Zahraničný obchod je tiež jedným z kľúčových odvetví slovenskej ekonomiky, pretože v posledných rokoch má export tovarov a služieb značný podiel na hrubom domácom produkte slovenskej ekonomiky.

2.1 Produktová a geografická štruktúra exportu tovarov a služieb za rok 2014

Slovenský export tovarov je pomerne silno odvetvovo koncentrovaný. Za rok 2014 tvoril približne tretinu celkového exportu tovarov export strojov, prístrojov a elektrických zariadení, štvrtinu tvoril export dopravných prostriedkov a desatinu tvoril export kovov a kovových výrobkov. Tieto tri odvetvia spolu tvoria dve tretiny slovenského vývozu.

Služby sa na exporte podieľajú sumou sedem mld. Eur (za rok 2014), pričom viac ako polovicu tvoria služby v doprave a cestovnom ruchu. Vývoz antivírusových programov, softvéru a zdieľaných služieb prináša na Slovensko cca jednu miliardu Eur. (Trend, 2016)

Table 3: Produktová štruktúra exportu tovarov za rok 2014 (%)

Stroje a prístroje	33,2
Dopravné prostriedky	25,6
Ostatné	16,9
Kovy a kovové výrobky	10,4
Plasty	5,5
Nerastné suroviny	5,2
Chemický priemysel	3,2

Source: Inštitút finančnej politiky, MF SR

Zahraničný obchod od vzniku samostatnej Slovenskej republiky prešiel veľkými zmenami. Rozhodujúca bola zmena smeru orientácie zahraničného obchodu na vyspelé štáty Európskej únie a preto súčasná teritoriálna štruktúra importu a exportu SR je koncentrovaná prevažne na tieto štáty. Export do krajín EÚ predstavoval v roku 2014 viac ako štyri pätiny celkového exportu. Takmer štvrtina exportu tovarov smerovala do Nemecka. Do krajín V3, teda Česko, Maďarsko a Poľsko smerovala ďalšia štvrtina, z toho polovica do Česka. Eurozóna bez Nemecka prijala ďalšiu štvrtinu exportu a do zvyšku EÚ šla desatina.

Z mimoeurópskych krajín predstavujú hlavné trhy pre slovenský export Rusko, USA a Čína. Ďalej majú exportéri najväčšie trhové podiely v susedných krajinách, Maďarsko, Poľsko,

Rakúsko. A v krajinách juhovýchodnej Európy - Slovinsko, Chorvátsko, Rumunsko, Bulharsko. V západnej, južnej a severnej Európe tvoria slovenské tovary len menej ako jedno percento dovozov.

Table 4: Geografická štruktúra exportu tovarov za rok 2014 (%)

Krajiny V3	26,8
Eurozóna bez Nemecka	24,3
Nemecko	22,2
Zvyšok EÚ	10,8
Ostatné	8,6
Rusko	3,2
Čína	2,1

Source: Inštitút finančnej politiky, MF SR

Inštitút finančnej politiky MFSR sledoval vývoj kľúčových priemyselných odvetví vývozu - automobilový, elektrotechnický a hutnícky priemysel a v nich hlavné tovary – položky, ktorých objem exportu v roku 2014 presiahol jednu miliardu eur. Pri väčšine skúmaných tovarov sa slovenský export najviac presadzuje v Česku. Výnimkou je železo a oceľ, kde Čechov tesne predbehlo Maďarsko, a televízne prijímače. Autá a televízory sú pomerne rozšírené po celej Európe. Železo a oceľ sú naopak sústredené na zopár geograficky blízkych krajín. Po Česku sú autá zo Slovenska najobľúbenejšie v Dánsku. V roku 2014 trhový podiel automobilov v Európe klesal pre obmedzenie výroby. Karosérie sa do Nemecka dovážajú takmer výhradne zo Slovenska. Televízory sú našim najlepšie sa presadzujúcim významným vývozným artiklom v EÚ, takmer každý piaty európsky dovezený televízor pochádza zo Slovenska. (Inštitút finančnej politiky MFSR, 2015).

3. Conclusion

V súčasnosti sa zahraničnému obchodu pripisuje stále väčšia dôležitosť v porovnaní s minulosťou, závisí od neho životná úroveň krajiny čo ovplyvňuje aj životnú úroveň každého obyvateľa.

Ekonomiku Slovenskej republiky môžeme charakterizovať ako malú, vysoko otvorenú s relatívne vysokým rastom. K rastu ekonomiky významnou mierou prispieva vysoká intenzita zahraničného obchodu a môžeme konštatovať, že zahraničný obchod je jedným z dominantných faktorov dosahovania vnútornej ekonomickej rovnováhy. Závislosť od zahraničného dopytu sa prejavila najmä v krízovom období (2009), keď výrazne ovplyvnila import aj export. Došlo k poklesu zahraničného dopytu po našej výrobe a aj v dôsledku poklesu domácej spotreby došlo najhlbšiemu prepadu HDP v histórii SR.

Zlepšovanie situácie na trhu práce za posledné roky spolu s klesajúcimi cenami viedli k rastu reálnych disponibilných príjmov, ktoré tak podporili spotrebu domácností. Kladne prispeli k rastu HDP aj investície a spotreba vlády. Vyšší domáci dopyt tak viedol k zvýšeniu importu, ktorý dokonca v roku 2011 rástol rýchlejšie ako vývoz. Zahraničný obchod vtedy prispel k rastu HDP mierne záporne. Za svoj rast tak naše hospodárstvo vďačí predovšetkým spotrebe zo strany slovenských domácností, verejnej správy a významnou mierou prispela aj investičná aktivita podnikateľov.

Rast slovenskej ekonomiky v roku 2014 zrýchlil na 2,5%, a v roku 2015 na 3,6 %, za čím stálo najmä oživenie domáceho dopytu ale aj priaznivý vývoj zahraničného obchodu.

Podľa Inštitútu finančnej politiky MFSR, Slovenská ekonomika si aj v roku 2016 zopakuje silný rast o 3,6 %. Hlavnými ťahúňmi budú spotreba domácností, ale aj čistý export. Pozitívny vývoj zaznamená aj trh práce, kde sa vytvorí takmer 50 tisíc nových pracovných miest. (Inštitút finančnej politiky MFSR, 2016)

Oproti roku 2015, kedy bola miera nezamestnanosti z celkového počtu uchádzačov o zamestnanie 13,7 % a miera evidovanej nezamestnanosti 12,06 %, v marci v roku 2016 dosiahla miera nezamestnanosti vypočítaná z celkového počtu uchádzačov o zamestnanie na Slovensku 11,69 % a miera evidovanej nezamestnanosti 9,89 %. (Treľová & Olšavský, 2016).

Odhaduje sa teda, že spotreba slovenských domácností sa bude aj naďalej zvyšovať vďaka pokračujúcemu poklesu miery nezamestnanosti, nominálnemu aj reálnemu rastu miezd (rast reálnych miezd prekročí 3%-nú úroveň už druhý rok po sebe) a len miernemu cenovému rastu. Podľa analytikov by sa malo dať aj našim hlavným obchodným partnerom z krajín V4 a aj eurozóny, ktorá by mala v tomto roku rásť o niečo rýchlejšie ako v minulom roku a to vytvára dobré vyhliadky aj pre export slovenských výrobkov a služieb.

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GLOBALIZATION OF INSURANCE INDUSTRY

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Abstract. The article investigates the influence of globalization on insurance industry which reduced amount of national insurance companies and increased foreign branches in three Baltic countries and in Slovenia. Analysis of statistic data on concentration level showed the trend of growing competition between insurance companies of countries investigated. Insurance contributes significantly to economic growth by improving the investment climate and promoting efficient mix of activities of economy than would be undertaken in the absence of risk management instruments. From other side economic growth and wealth are the most important determinants for insurance market growth and penetration. In this paper, the authors investigate the insurance density and penetration in dependence of economic growth and globalization in three Baltic countries: Lithuania, Latvia, Estonia and Slovenia. The findings of the paper show that level of economic growth and demand of insurance services in all states varies: the insurance density in Lithuania last year was at 1,6 %, while the average cost of insurance per capita was 204 euros. Latvian insurance market penetration and density was respectively 1,5 % and 185 euros, Estonian – 1,7 % and 259 euros, Slovenian - 5,1% and 920 euros, while the average penetration and density in the EU countries of Central and Eastern European region was 2,6 % and 334 euros. This reflects the ongoing different impact of globalization on their insurance markets, due to changes in security traditions, appearance of new insurance types and financial literacy of the population.

Keywords: insurance, economic growth, personal income, density, penetration.

JEL Classification: D31, G22, O47

1. Introduction

The research of insurance globalization in EU countries confirms its importance in directing it towards steady increase and reflecting global trends. Special attention in this paper has been dedicated to the analysis of indicators of living quality and insurance density and penetration as basic indicators of market globalization in three Baltic countries: Lithuania, Latvia, Estonia and the Republic of Slovenia from 2010 to 2015. The subject of this research is an overview and analysis of the relationship between the growth of economy and the globalization of

insurance markets in these countries. The main goal of the research is to obtain results on the influence of globalization processes in development of the insurance industry comparing different EU countries. In the research were applied methods of analysis and synthesis. The research results confirm the significance of the relationship between globalization trends and changes in the insurance markets of EU countries, hence providing a background for further research in this area. Object of the research: the relationship between economic growth and insurance spending in the Baltic States and Slovenia.

2. Overview of Theoretical Researches

The influence of globalization on the different industries is often analyzed issues in recent years (Dudzevičiūtė et al., 2014), (Podoabă, 2015), (Dudzevičiūtė et al., 2016). The dynamics of changes and conditions induced in the environment by globalization largely determine the ways in which insurance companies are operating. The special importance of research on the influence of globalization on insurance companies is reflected by the fact that business operations of these companies largely define the growth of economy, which directly influences economic and social development of the country. As insurance companies are the typical representatives of financial activities, which have specific importance in the market, so it is vital to analyze the influence of the globalization processes on their activity. This issue is strongly emphasized in the case of transitional economies of different European Union countries, since the success of reforms largely depends on the efficiency of the financial sphere and its complementariness within international, global courses. These issues were investigated by several authors, one of them Liedtke Patrick (2007) investigated the connection between the modern courses and trends in the financial market through the prism of insurance activities, with special attention to the ability of insurance companies to adjust themselves to the courses and trends that globalization as a global process stimulates. The conclusions derived by the author could be reduced to the general notion that there is a strong correlative interconnection between globalization and insurance activities and that the trends of globalization are reflected in the insurance business. The eclectic paradigm (Dunning, 2000) predicted that companies decide to go international when they possess some company-specific advantages. This paradigm is actually a conglomerate of resource-advantage theory, international trade theory, and transaction cost-analysis theory. Later refinements of this theory involved business, technological and political developments in the 1990s and tried to explain globalization in terms of dynamics with their increasing positive dynamic position, which is one of the most important factors for global social and economic development. Dunning pointed out the significance of the content and quality of a country's social capital, its environmental integrity, its policies towards bribery and corruption, its acceptance of the need for transparent and accurate information, and the respect of the business organization for the law, particularly in relation to the enforcement of inter-firm contracts (Dunning, 2005). The processes of globalization significantly influence paths and trends in further development of economy. The article analyzes the condition on the local insurance markets of EU countries and their possibilities for the further development.

3. Global Influence and Regulatory Tasks

The Global Federation of Insurance Associations (GFIA), was established in October 2012 and has 40 member associations, which represent the interests of (re)insurers in 60 countries. They account for more than \$4 trillion of insurance premiums worldwide, or 87% of the global

total (Insurance Europe, Annual Report 2015–2016). The establishment of such body is more crucial than ever to have a means for national and regional insurance associations to work collectively to convince national policymakers that international standards could do far more harm than good to the economy and consumers if they undermine other goals that global G-20 leaders seek to achieve. A major focus for insurers worldwide is International Association of Insurance Supervisors (IAIS) development of quantitative insurance capital standards (ICS). In 2015 the IAIS carried out an extensive consultation on the ICS. Stakeholders from around the world responded and highlighted a wide range of concerns and challenges. While the International Accounting Standards Board now is finalizing international accounting standard for insurance, it is still uncertain whether it will be possible to develop as truly international solvency capital standard. Although the insurance industry was not responsible for the last financial crisis, it was impossible to disregard insurance when developing new regulatory requirements at global level (Van Hulle, 2015), thus the Financial Stability Board wanted a level playing field between banking and insurance regulation in order to avoid regulatory arbitrage. Furthermore, once it was agreed that there could also be global systemically important insurers (G-SIIs), it became necessary to define the additional capital that these insurers need to hold in order to distinguish them from other insurers. How to do this in the absence of an internationally-agreed capital standard was the question. In terms of implementation of the ICS, things are not easy. For the EU, it is unlikely that changes will be considered before the agreed deadlines for the revision of Solvency II and — given the investment made in its development — any changes are likely to be refinements rather than fundamental (Van Hulle, 2015). Other countries, such as Australia, Brazil, Canada, China, Japan and Mexico have carried out, or are in the process of developing, similar reforms to create strongly risk-based solutions. It will also be difficult for many of them to fundamentally change their approach. For the US, it is already difficult to agree nationally on who is in charge of developing solvency rules for large insurance groups. It is thus unlikely that the introduction of an ICS will come without difficulties there.

Therefore, examining of various insurance markets in the EU countries is interesting from both theoretical and practical point of view, showing the consequences of globalization to insurance market. Since 1990 the markets of investigated countries Lithuania, Latvia, Estonia and Slovenia, have been attracting more and more global insurance and reinsurance companies, what are the results of the liberalization, de-monopolization and privatization of national insurance markets, economic and political reforms, creation of conditions for the free flow of capital, achievement of economic growth as well as the integration into the European Union in 2004. From Table 1 we can see changes in number of insurance enterprises acting in the reviewed countries:

Table 1. Changes in the number of insurance enterprises, 2005-2014

	Estonia		Lithuania		Latvia		Slovenia	
	2005	2014	2005	2014	2005	2014	2005	2014
1 National enterprises	11	12	24	10	17	7	16	16
2 Branches of third (non-EU/EEA) countries	-	-	-	-	-	-	-	-
1 + 2 Total under national supervision	11	12	24	10	17	7	16	16
3 Branches of EU/EEA countries	4	4	3	14	3	14	2	6
1 + 2 + 3 Total activity in the country	15	16	27	24	20	21	18	22
Branches in EU/EEA countries	-	-	1	4	3	9	-	-
Branches in third (non-EU/EEA) countries	-	-	-	-	-	-	-	-

Source: EIOPA-statistical annex-insurance 2005-2014

During the period of 2005-2014 is observed significant decrease of national insurance enterprises in Lithuania from 24 to 10 and in Latvia from 17 to 7. In Estonia and Slovenia, on the contrary: the total number of insurance companies under national supervision increased as in Slovenia was stable. The number of branches in the European Union and European Economic Area (EEA) increased in Lithuania from 1 to 4, in Latvia from 3 to 9. The number of branches from EU and EEA countries was increasing in all countries 3-4 times, except Estonia – 4 branches. Regarding Slovenia, this country has been the most developed country both generally and in the domain of the insurance and reinsurance market. On this market are operating 22 companies, of which 16 are national companies (Goran, 2010). The concentration ratio as gross written premiums of the largest 3, 5 and 10 companies as a per cent of total written premiums in the domestic sector, is shown in Table 2:

Table 2. Concentration ratio of life and non-life insurance enterprises, %

		Largest 3,5,10 companies	2005	2010	2014
Estonia	<i>Life enterprise</i>	CR-3	87,3%	87,0%	79,7%
		CR-5	100%	100%	100%
		CR-10	100%	100%	100%
	<i>Non-life enterprise</i>	CR-3	82,6%	62,2%	79,0%
		CR-5	97,5%	83,2%	98,0%
		CR-10	100%	98,4%	100%
Lithuania	<i>Life enterprise</i>	CR-3	75,0%	64,2%	50,5%
		CR-5	93,7%	88,3%	57,0%
		CR-10	100%	99,3%	-
	<i>Non-life enterprise</i>	CR-3	64,1%	59,0%	46,4%
		CR-5	79,7%	80,7%	46,6%
		CR-10	95,9%	95,3%	-
Latvia	<i>Life enterprise</i>	CR-3	80,0	98,3	100
		CR-5	100	100	-
		CR-10	-	-	-
	<i>Non-life enterprise</i>	CR-3	54,2	73,6	90,0%
		CR-5	71,8	86,4	100%
		CR-10	99,2	100	-
Slovenia	<i>Life enterprise</i>	CR-3	71,5%	67,7%	59,8%
		CR-5	84,7%	81,4%	77,9%
		CR-10	-	99,3%	99,2%
	<i>Non-life enterprise</i>	CR-3	79,1%	69,9%	66,4%
		CR-5	96,1%	88,2%	86,8%
		CR-10	99,90%	99,8%	99,8%

Source: EIOPA-statistical annex-insurance, 2005-2014

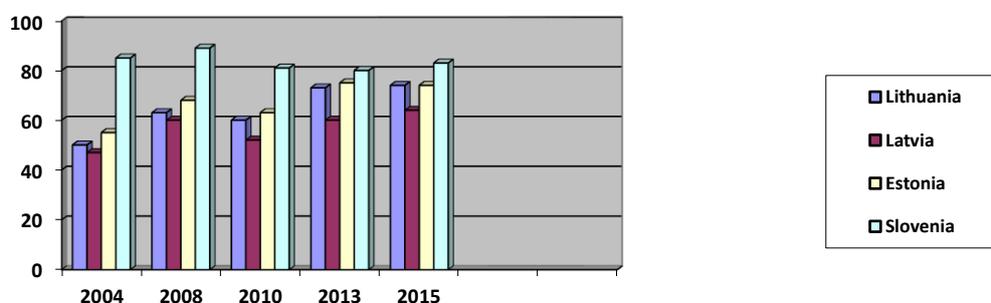
The statistical data represented in Table 2, allow to compare the concentration levels of each investigated country. Analysis of statistic data showed, that the insurance market is highly concentrated in Latvia, where top three insurers had 100% of life insurance market and 90% of non-life in 2014 (AAS "Balta", AAS "Baltikums", AAS "Gjensidige Baltic"). In Estonia: the top three insurers are holding 79,7% of the life insurance market share (Compensa Life, Vienna Insurance Group SE, Mandatum Life Insurance) and 79% (AAS Gjensidige Baltic Eesti filiaal, AS Inges Kindlustus, ERGO Insurance SE) of non-life in 2014 (International Insurance Fact Book, 2016). Concentration of insurance market in Lithuania and Slovenia in comparison with Latvia and Estonia is substantially lower: in Lithuania 50,5% of life insurance market share belong for three companies and in non-life – 46,4% in 2014. In Slovenia - subsequently: 59,8% and 66,4% in life and non-life insurance markets. Concentration level of life insurance market

among 3 largest companies in all countries during the researched period 2005-2014 was decreasing, except in Latvia, where this indicator increased from 80% in 2005 to 100% in 2014 and in non-life market from 54,2% to 90%. This reflects the dissimilar growth of competition level between insurance companies. In Lithuania in life insurance market the main players are Swedbank, SEB gyvybes, Aviva Lietuva, Ergo Lietuva gyvybes, Compensa Life Vienna. In non-life insurance market there were Lietuvos Draudimas, BTA, PZU Lietuva, Ergo, Gjensidige Baltic (International Insurance Fact Book, 2016). In Slovenia there are five leading non-life insurance companies (Triglav, Vzajemna, Adriatic Slovenica, Maribor, Triglav Health) which had 99,8% of non-life insurance market and five companies (Triglav, Modra, Maribor, Adriatic, Slovenica) were holding 99,25% of life insurance market (International Insurance Fact Book, 2016).

4. The trends of insurance spending and economic growth

Economic growth means an increase in real Gross domestic product (GDP), which is a measure for the economic activity. It is defined as the value of all goods and services produced less the value of any goods or services used in their creation. The euro area real GDP in the first quarter of 2016 increased by 0,6% quarter-on-quarter, which is a much better result than predicted. As a result, in the first quarter of 2016 year, GDP was 1,7% higher than a year ago and **has finally exceeded the pre-crisis level**. Growth continued to be fostered by increased private underpinned by the stimulating monetary policy of the Euro system, improved labor market indicators, as well as the continued relatively low oil prices. Growth was reduced by the weakened external demand or our export capacity, which, to a certain degree as also determined by the geopolitical situation. Even though the Euro system implements an active and stimulating monetary policy, implementation of a reasonable fiscal policy and carrying out of structural reforms continue to be important factors in developing sustainable growth. Insurance contributes significantly to economic growth by improving the investment climate and promoting efficient mix of activities of economy than would be undertaken in the absence of risk management instruments. From other side economic growth and wealth are the most important determinants for insurance market growth and penetration. In Figure 1 the volume index of GDP per capita in Purchasing Power Standards (PPS) of investigated countries is expressed in relation to the European Union (EU28) average set to equal 100.

Figure 1. GDP per capita in Purchasing Power Standards (PPS) of Baltic countries and Slovenia in 2004-2015, Index (EU28 = 100)



Source: Eurostat data, 2016

Figure 1 show that GDP per capita was growing in all Baltic countries in period of 2004-2015 year, as in Slovenia this indicator slightly dropped. The global economic and financial

crisis has affected the economic development of all the EU countries. In 2009, all the EU countries' groups reported decline in real GDP per capita. Among Baltic countries the highest GDP per capita was in Estonia, second result was in Lithuania and the lowest in Latvia. Economic growth is an important macro-economic objective because it enables increased living standards and helps create new jobs. For example, Lithuania despite a slowdown in 2014, due to subdued export markets and economic stagnation in Russia, GDP growth is still expected to gather pace in 2015. After expansion estimated at 2,9% in 2014, faster export increases as EU markets pick up gradually, and the impact of lower interest rates, as they move into line with the rest of the Eurozone will help to lift Lithuania's growth to about 3,6% in 2015. In 2016 - 2018, the expected growth will be 4, 5% - 5% a year. Such Lithuania's growth will outrun the Eurozone's average three times. If similar trends will appear in neighboring Baltic countries, too, therefore, the Baltic region, which is only about 0, 8% of the total Eurozone's GDP will become its growth flag-bearer (Swedbank, 2016). According to experts, although near-term prospects are held down by the external challenges and threats, longer-term prospects, however, remain promising. As EY and "Oxford Economics" evaluated, Lithuania's small and relatively open economy responded well to the global financial crisis and the subsequent recession, with substantial "internal devaluation" helping to restore competitiveness much faster than in most other EU countries (Eurozone business environment). For assessment of the development level of the insurance market the most frequently are used such indicators as the insurance penetration rate in the economy and insurance density. Penetration rate indicates the level of development of insurance sector in a country.

The penetration rate of insurance in the economy is a synthetic indicator which shows the contribution of the insurance sector to the gross domestic product (GDP) and is calculated as the ratio between the amount of direct total insurance premiums and gross domestic product. Insurance penetration is a commonly recognized indicator of insurance activity. Insurance density is used as an indicator for the development of insurance within a country and is calculated as ratio of total insurance premiums to whole population of a given country (Nagy, 2012).

Table 3. Insurance density and penetration in 2014

Countries	Population, million	Density, €/person	Penetration, %
Lithuania (LT)	2,921	204	1,6
Latvia (LV)	1,986	185	1,5
Estonia (EE)	1,300	259	1,7
Slovenia (SI)	2,060	920	5,1

Source: authors' calculations based on Eurostat data

The Table 3 above shows, that insurance density as ratio of total premiums to whole population of a given country, it is significant differences between Baltic countries and Slovenia: Slovenia with almost similar population has 5, 1% insurance penetration level, while the average penetration and density in the EU countries of Central and Eastern European region was 2, 6 % and 334 euros in 2014.

Table 4: The evolution of insurance penetration level in 2000-2014, %

Countries	2000	2005	2009	2010	2014
1. Lithuania	1,0	1,5	1,7	1,6	1,6
2. Latvia	2,0	1,8	1,7	1,5	1,5
3. Estonia	1,7	2,3	2,6	2,0	1,7
4. Slovenia	4,4	5,4	5,9	5,8	5,1
EU(28)	8,4	8,0	EU(27)8,5	7,52	7,46

Source: Insurance Europe, 2016

Analyzing the data of Table 4, which represent the evolution of insurance penetration of separate country we can see, that in 2014 year Slovenia had the highest insurance penetration level (5,1%) in comparison with Baltic countries, where this indicator varied from 1,5 to 1,7. However their initial conditions in 2010 year were quite different: if insurance penetration in Lithuania was only 1%, therefore in Slovenia – 4,4%, in Latvia - 2%, in Estonia - 1,7%. During the investigated period from 2000 to 2014 year this indicator tended to grow till 2009 year: to 5, 9% in Slovenia, to 2, 6% in Estonia, to 1, 7% in Latvia and Lithuania. However, due to the global financial crisis affect decreased to 1,6% in Lithuania, 1,5% in Latvia, 1,7% in Estonia and 5,1% in Slovenia in 2014. This reflects the ongoing different impact of globalization on their insurance markets, due to changes in security traditions, appearance of new insurance types and financial literacy of the population.

5. Conclusion

1. The growing presence of business globalization and its associated consolidation, deregulation, new distribution channels and new customer demands, are only a few of the key forces leading to the reorganization of business dealings of present day insurance companies with regard to capital allocation, product development, processing of damage claims, and enhancement of business efficiency.
2. The influence of globalization on the insurance industry was analyzed in scientific researches, which investigated the connection between the modern courses and trends in the financial market through the prism of insurance activities, with special attention to the ability of insurance companies to adjust themselves to the courses and trends that globalization stimulates.
3. The globalization led to establishment of Global Federation of Insurance Associations, which is more crucial than ever to have a means for national and regional insurance associations to work collectively to convince national policymakers in preparing international standards for the goals, which global G-20 leaders are planning to achieve.
4. As consequence of globalization on insurance market in three Baltic countries and in Slovenia was observed decrease of national insurance companies and increase of foreign branches. Analysis of statistic data on concentration level showed the trend of growing competition between insurance companies of countries investigated.
5. Insurance contributes significantly to economic growth by improving the investment climate and promoting efficient mix of activities of economy than would be undertaken in the absence of risk management instruments. From other side economic growth and wealth are the most important determinants for insurance market growth and penetration.
6. For assessment of the development level of the insurance market the most frequently are used such indicators as the insurance penetration rate in the economy and insurance density. Analysis of these indicators in countries investigated showed that in 2014 year Slovenia had the highest insurance penetration level of 5,1% in comparison with Baltic countries, where this indicator varied from 1,5% to 1,7%. This reflects the ongoing different impact of globalization on their insurance markets, due to changes in security traditions, appearance of new insurance types and financial literacy of the population.

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ASSESSMENT OF NEGOTIATING POWER IN PREPARATION OF INTERNATIONAL BUSINESS NEGOTIATIONS STRATEGIES: THE CASE OF ATTRACTING INVESTMENTS

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Abstract. Contemporary business world has to encounter a huge variety of different cultures and their specifics, which requires adequate theoretical solutions for international business organisation and management. International business development under global conditions involves conducting business negotiations participated by representatives from all kinds of different cultures. This poses additional difficulties in developing strategic solutions and ensuring their support. Therefore, there is an obvious demand for adequate negotiation models, which take into the account the potential of the negotiating parties — their bargaining power. The purpose of the research is to provide a theoretical model for developing and implementing international business negotiation strategies, based on bargaining power assessment, as well as to conduct an experiment and test the suitability and adaptability of the developed model in an international business negotiation situation — in case of attracting investments. Research methods — scientific literature analysis, comparative, logical analysis and synthesis, comparative and generalisation methods, mathematical and statistic data analysis methods. According to the results, the developed model can be used to reinforce international business negotiations and electronic business negotiations, as an independent systemic unit of the negotiation process (a measure that is autonomous or requires only partial intervention of the negotiator).

Keywords: bargaining power, attracting investment, negotiations, bargaining power assessment, strategic decisions.

JEL Classification: M16, M54, F50

1. Introduction

This article examines a model proposed by the author, the purpose of which is to help develop international business negotiation strategies, based on the assessment of bargaining

power. This model will be tested in a typical international business negotiation environment — attracting investments. The complexity and systematic nature of negotiation issues determines the necessity to consider the abundance of situations, processes and the criteria for evaluating negotiation potential. The problem is that management, as well as business management theory does not provide any theoretical solutions for evaluating bargaining power during international business negotiations, especially considering the possibilities of using negotiation support technology, which is rather important for international business development. The object of this research is the support for developing international business negotiation strategies, based on bargaining power assessment. The purpose of the research is to provide a theoretical model for developing and implementing international business negotiation strategies, based on bargaining power assessment, as well as to conduct an experiment and test the suitability and adaptability of the developed model in an international business negotiation situation — in case of attracting investments. Research methods - scientific literature analysis, comparative, logical analysis and synthesis, comparative and generalisation methods, mathematical and statistic data analysis methods.

2. A model for developing an international business negotiation strategy

The process of getting to know the situation may take place during the negotiation process, thus strategic tactics and actions (steps) may change on each new issue examined during the negotiations. The analysis of scientific literature (Ginevičius *et al.* 2014; Tamošiūnas 2011; Zavadskas *et al.* 2015; Zavadskas 2004) shows, that the application of heuristic algorithms in developing and implementing negotiation strategies in order to assess bargaining power and reflect on the process of negotiation itself, is rather promising. The purpose of the heuristic algorithm will be to find the negotiating strategies-payoffs that bring the greatest total benefit for the negotiation process. Having defined the priority list of our negotiation issues, note that each of the negotiation issues involves negotiating with a set of potential negotiation partners. Let's make that set a definite number, consisting of t alternatives for each of the issues. Let's mark the alternatives of the issue i as $b_{i,j}$, $j = 1, 2, 3, \dots, t_i$. Then we will mark the set of all the alternatives for the issue i as $w_i = \{b_{i,1}, b_{i,2}, \dots, b_{i,t_i}\}$, while $w_1 \times w_2 \times w_3 \dots w_n$ is the set of all possible negotiation scenarios, when each of the issues involves choosing one possible alternative, where n is the number of the negotiation issues.

Having marked the beginning of the negotiation with a b_0 , we can illustrate the entire process as a tree graph (Fig. 1), where the branch $H_{i,b_{ij}}$ marks the payoff of choosing the alternative j in solving the issue i .

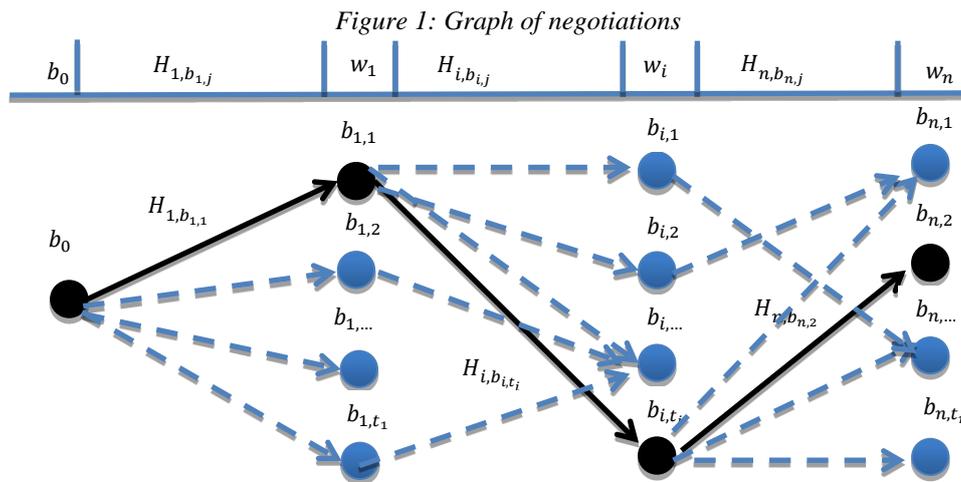
$$\max_{k \in w_1 \times w_2 \times w_3 \dots w_n} \left(\sum_{i=1}^n H_{i,b_{ij}} \right), j = 1, \dots, |w_i|, \quad (1)$$

where:

H — the outcome of the negotiator's negotiation issue according to the chosen optimisation rule (Hurwitz, Wald, Werner, etc.);

n — the number of the negotiation issues (the subscript and superscript mark the beginning and the end of the negotiation issue).

The superscript b_0 marks the beginning of the issue, the subscript b_{ij} marks the alternative j of the issue i , while the branch $H_{i,b_{ij}}$ marks the payoff of choosing the alternative j as the solution to the issue i . $j \in w_1 \times w_2 \times w_3 \dots w_n$.



Source: composed by the authors.

In the model the bargaining power assessment of all negotiation subjects and the preparation of the strategy is conducted as follows: a non-linear normalisation of the indices of the negotiation issue; multi-criteria assessment of the indices of the negotiation issue; using game matrix to obtain the most beneficial strategy for the negotiation issue; using optimum rules in order to obtain the maximum payoff of the negotiation issue; solving the optimisation problem in order to obtain the maximum negotiation payoff; finally, performing a comparative analysis of the bargaining power assessments and making the decision.

3. The empirical study methodology for the application and assessment of the model

The empirical study involves the following research methods: logical analysis, forming logical conclusions, comparison, generalisation methods; mathematical and statistical data analysis methods are used to process and analyse the data obtained during the empirical study, the statistical analysis of the data was performed using the SPSS (Statistical Package for the Social Sciences) software. The methods of the game theory (Xu *et al.* 2012; Pena *et al.* 2014; Cevikel *et al.* 2010; Panda *et al.* 2014; Zavadskas *et al.* 2004; Apynis 2007; Žilinskas 2007) and the multi-criteria assessment are used in order to evaluate the bargaining power of the business subjects participating at specific international business negotiations in order to choose efficient international business negotiation strategies. The assessment was performed using the MathLab software.

The study raised the following hypotheses:

H1: The practice of international business negotiations lacks tendencies and opportunities for substantial and adequate assessment of the bargaining power of various business subjects, taking into account the contemporary international and multicultural business environment, as well as the demands and opportunities of remote negotiation technology and electronic business development.

H2: International business negotiation strategies based on bargaining power assessment achieve better negotiation results, compared to negotiations that are not based on the bargaining power assessment.

We will attempt to prove the first (H1) and second (H2) hypotheses by analysing the preparation of international business negotiation strategies based on bargaining power assessment in a typical field of business negotiations — attracting investments.

The empirical study is focused on searching for the major parameters of the model and supporting its application opportunities.

The case of attracting investments is the most common situation in international business negotiations. The study is conducted according to the specifics of this field. After we test the suitability of this model for this typical case, we could discuss further studies on the application of this model in other areas. This study includes the methods of the game theory, using a heuristic algorithm (Lova *et al.* 2000; Mandow, Cruz 2003; Azar 2014; Tamošiūnas 2011) and a multi-criteria assessment.

4. The preparation of international business negotiation strategies in case of attracting investments

This study examines the preparation of international business negotiation strategies based on bargaining power assessment in case of attracting investments. This will enable to check, if the model for developing negotiation strategies and its algorithm are suitable for supporting business negotiations based on bargaining power assessment. The cases of attracting investment have been examined by the following researchers: Soboleva *et al.* (2015); Krishtal and Lisovskaya (2015); Alexander and Matthias (2012); Tvaronavičienė and Lankauskienė (2011). Further on we conducted a bargaining power assessment of the interested subjects, which will be used in developing a strategy. In the study participated four business subjects. The participants and the context of the negotiations will be defined further on.

The situation and its context. One of the negotiating parties is searching for a factory producing luxurious bathroom and plumbing accessories for the purpose of selling them in Lithuania. This requires investments into opening and maintaining retail outlets in Vilnius, Kaunas and Klaipėda, including compensations for the exposition costs. Interested parties:

Party 1 — the opponent. The opponent is one of the major Italian producers of bathroom and plumbing accessories. He has retailers in Lithuania. This partner is unsatisfied with the sales volumes of the current retailers and thus is searching for alternatives.

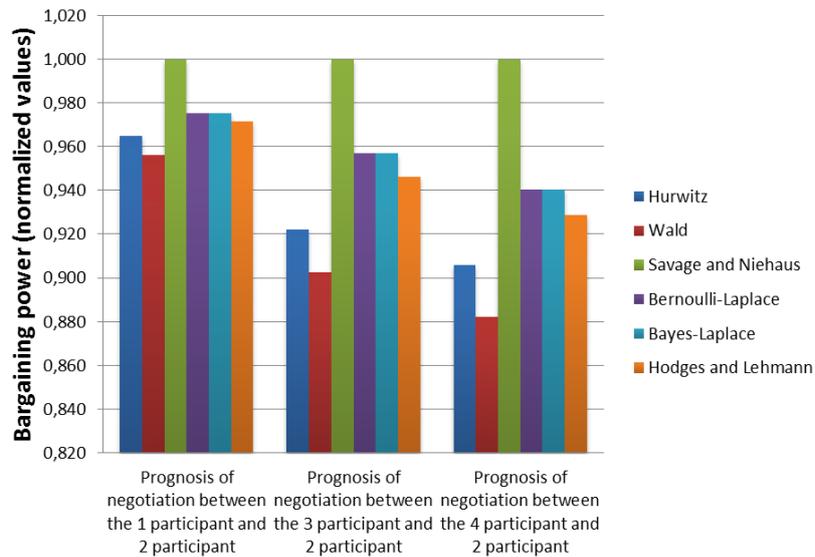
Party 2 — the negotiation subject in need of negotiation support. The negotiation subject is a Lithuanian retailer of bathroom and plumbing accessories, but so far he has been selling only economy-class products. He would like to start distributing goods for another client segment. However, his current premises are unsuitable. He has a huge experience of successful business. The negotiation payoffs will be evaluated based on this subject.

Party 3 — the competitor of the opponent. This is a relatively new Italian producer of bathroom and plumbing accessories; however, his investment possibilities are not as good as that of the Party 1. This party has been intensively looking for a partner in Lithuania.

Party 4 — the competitor of the opponent. This Italian producer of bathroom and plumbing accessories has been successfully selling luxurious bathroom accessories in Lithuania, but he would like to sell more than one manufacturer's goods.

We chose the following rules (Appendix 1, formulas 2-10): Hurwitz, Wald, Savage and Niehaus, Bernoulli-Laplace, Bayes-Laplace, Hodges and Lehmann. Figure 2 illustrates the comparison of the game results by adapting different optimisation rules.

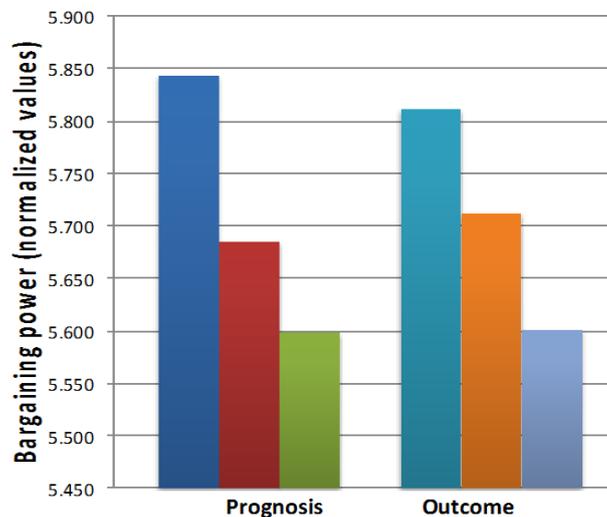
Fig. 2. The distribution of the negotiation payoffs in attracting investments according to different optimisation rules



Source: composed by the authors.

Figure 3 illustrates the comparison of the total bargaining power assessment results.

Fig. 3. The total results of the bargaining power assessment of the participants of international business negotiations in attracting investment



Source: composed by the authors.

The use of optimisation rules enables us to simulate various negotiation situations and find the largest, average and lowest payoffs. The principles and rules should be chosen by highly-qualified negotiators that are experienced in their field.

The participant 1 had the greatest bargaining power, while the bargaining power of his competitors was significantly smaller. Although the participant 2 did not use this negotiation support, he managed to conclude a transaction with the participant 1, The results of this study reaffirm that the algorithm could be used to support negotiation strategies in attracting investments.

5. Conclusions

In order to apply and test the developed strategy preparation model based on bargaining power assessment, we conducted an empirical study in a typical international business environment — by analysing a case of international trade. The results show that the model helped to assess the bargaining power of the interested international business subjects and make strategically efficient decisions. It was determined that the use of the negotiation strategy model, which is based on bargaining power assessment, allowed to make more efficient strategic decisions that without using that model. Therefore, we could say that the results reaffirm the first and the second hypothesis. The perspectives of using the developed model at international business negotiations include: using the model as a measure for negotiation support or reducing information deficit, also as an autonomous engine of the negotiation process, for managing large quantities of information, as well as for improving communication conditions.

Based on the conclusions of the study we could say that the model for developing international business negotiation strategies may be used for negotiations, which involve attracting investments both as an autonomous measure, as well as a measure, which partially requires the negotiator's intervention. This model for developing negotiation strategies may be used for negotiation support by using various data bases. The results of the study may be used in creating international business negotiation strategies, taking into account global, international and multicultural cooperation principles. The integrated model for supporting decision-making during international business negotiations enables an adequate assessment of the bargaining power of the negotiating and interested parties. It also helps to create an integrated view of the factors that actually influence the negotiation results, the specifics of cooperation in different countries and cultures, as well as optimise the processes of creating and implementing international business negotiation strategies with the aim to make the most of the bargaining power for international business development under contemporary conditions.

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Appendix 1. Formulas for optimisation rules

$$\text{Wald rule} \quad S_1^* = \{S_{1i} | S_{1i} \in S_1 \cap \left\{ S_{1i0} a_{i0j0} \max_j \min_i a_{ij} \right\}\} \quad (2)$$

$$\text{Hurwicz} \quad A_j = \max_i ((1 - \lambda) \min_j a_{ij} + \lambda \max_j a_{ij}), \quad (3)$$

$$\text{rule} \quad A_j = \min_i ((1 - \lambda) \max_j a_{ij} + \lambda \min_j a_{ij}). \quad (4)$$

$$S_1^* = \{S_{1i} | S_{1i} \in S_i \cap \{S_{1i0} | h_{i0} = \max_i h_i; h_i = \max_i (1 - \lambda) \min_j a_{ij} + \lambda \max_j a_{ij}; 0 \leq \lambda \leq 1\}\}. \quad (5)$$

$$\text{Savage-} \quad S_1^* = \{S_{1i} | S_{1i} \in S_1 \cap \{S_{1i0} | r_{i0j0} = \min_i \max_j r_{ij}\}\}. \quad (6)$$

Here $r = \overline{1m}; s = \overline{1, n}$.

$$\text{Bernoulli-Laplace rule} \quad S_1^* = \{S_{1i} / S_{1i} \in S_1 \cap \max_i (1/n \sum_{i=1}^n a_{ij})\}. \quad (7)$$

$$\text{Bayes-Laplace rule} \quad S_1^* = \{S_{1i} / S_{1i} \in S_i \cap \max_i (\sum_{j=1}^n q_j a_{ij}) \cap \sum_{j=1}^n q_j = 1\}. \quad (8)$$

$$\text{Hodges-Lehmann rule} \quad S_1^* = \left\{ \frac{S_{1i}}{S_{1i}} \in S_i \cap \max_i \left[\lambda \sum_{j=1}^n q_j a_{ij} = (1 - \lambda) \min_j a_{ij} \right] \right\}, \quad (9)$$

$$\cap 0 \leq \lambda \leq 1$$

$$\text{Werner rule} \quad S_1^* = \left\{ S_{1i} | S_{1i} \in S_i \cap \left\{ S_{1i0} | a_{i0} = \max_{i \in M_\varepsilon} a_{ij}; M_{\varepsilon i} = \left\{ i | \max_i a_{ij} \min_j a_{ij} - a_{ij} \leq \varepsilon \right\}; \max_j a_{ij} \geq \max_j a_{i0j} \right\} \right\}. \quad (10)$$

ε – the extent of the risk.

DESCREPTION OF SAFETY IN TERMS OF TOURISM

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Abstract. Tourism and terrorism can be seen as a global phenomenon. Tourism is one of the key sectors of the economy and its development is influenced by many factors, for example the attractiveness of the environment (range of services), the expenses and shift course and safety. The safety factor is a major prerequisite for the creation and sustainable development of tourism, which is a major carrier of the economic development of the region. Safety in terms of tourism is characterized mainly by various sources such as the number and intensity of attacks, the number of accidents, the level of economic crime, the costs of crime and terrorism or as the number of attacks and their victims. Current global threats, especially migratory crisis, terrorist attacks and the associated increasing crime, predetermine change the map of tourism. It may be assumed that greater unrest and possible political and social instability, tourism moves to safer destinations or regions with a good ability to eliminate security risks. Tourists will choose destinations where there will be endangering their safety. On the other hand, a sense of security is a matter of subjective and everyone sees it differently. Feeling distance from the epicenter of the riots and the cost so it can cushion the decline of tourism in the affected regions. Aim article is to compare the development of inbound tourism ie. The number of tourists and overnight stays in relation to the level of safety in selected regions of Europe. It is clear from the results that there was a slowdown in the regions where attacks were recorded.

Keywords: Tourism, crime, competitiveness, security, inbound tourism.

JEL Classification: R11, Z32, O52

1. Bezpečnost jako faktor rozvoje cestovního ruchu

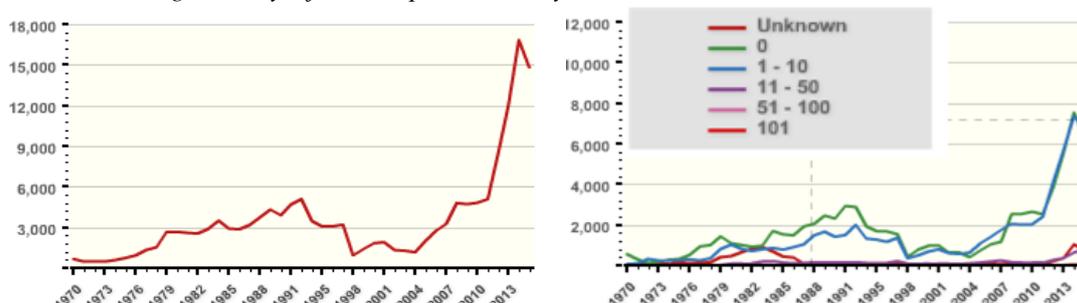
Cestovní ruch (CR) je jedním z významných generátorů hrubého domácího produktu (HDP) ve světě. Poptávka a nabídka na trhu CR je dána mnoha faktory, mezi něž můžeme zařadit především atraktivitu regionu, nákladovou stránku a bezpečnost. V rámci globalizačních procesů dochází ke zkracování dostupnosti regionů a možnosti dosažení vzdálených regionů. Na jednu stranu globalizace homogenizuje nadvládu technologií, podporuje hospodářské vazby. Na druhou stranu však přemísťování přináší bezpečnostní rizika plynoucí ze střetu různých etnik, náboženských skupin (Korstanje, M. E, 2015). Nebezpečí a CR společné znaky, oba překračují národní hranice.

Pokud se týká konkretizování faktorů bezpečnosti, za tyto můžeme považovat zločin, zdravotní rizika, terorismus a politickou nestabilitu. Metodika UNWTO v rámci hodnocení

konkurenceschopnosti CR pomocí indexu TTCI^{2,3} (Index Travel Competitiveness Index) definuje bezpečnost jako souhrn faktorů zahrnující bezpečnost, terorismus a dále schopnost regionu poskytovat ochranu před trestnou činností. Konkrétně TTCI hodnotí náklady na terorismus, pravomoc policejních složek, náklady na kriminalitu a počet dopravních nehod na 100 tisíc obyvatel. Od roku 2015 je do indexu TTCI zařazen Index terorismu. Dalším indexem pro hodnocení bezpečnosti regionu je světový index míru Global Peace Index (GPI), který rozděluje bezpečnost na vnější a vnitřní a rovněž zahrnuje do svých faktorů hodnocení jako počet mrtvých z organizovaného zločinu (Sajjadi, M, 2016; Pratt. S. Liu. A. Does, 2016).

Před několika lety bylo útoky postiženo 6 zemí, dnes se týká 35 zemí. Od roku 1970 bylo zaznamenáno ve světě 679 případů útoků, a přestože vývoj měl od roku 1995 tendenci k postupnému snižování, od roku 2004 do roku 2014 docházelo k výraznému nárůstu a v roce 2015 bylo již evidováno na 14807 útoků (viz obrázek 1). Se zvyšujícím se počtem útoků roste i počet zraněných a počet obětí.

Figure 1: Vývoj útoku a počet smrtelných obětí ve světě v letech 1970 – 2015



Source: Databáze GTD

Do budoucna se tak může spíše počítat s pesimistickými scénáři vývoje a nárůstem útoků.

2. Metodika a data

Analýza se zaměřila na vývoj příjezdového CR v hromadných ubytovacích zařízeních (HUZ) a bezpečnostní situaci ve vybraných destinacích západní Evropy. Otázkou je, zda bezpečnost ovlivňuje příjezdový CR a bezpečné regiony mají pozitivní vývoj návštěvnosti zahraničních turistů západní Evropy. Analýza se z důvodů absence dat omezovala na vybrané regiony⁴ západní Evropy. Podobně absence dat omezovala časovou analýzu na roky 2011 – 2015. Zdroje dat o vývoji ukazatelů vychází ze statistiky GTD⁵ a databáze Eurostatu. Pro rozdělení regionu do skupin byly použity hodnoty pilíře bezpečnosti TTCI 2015 a Indexu terorismu pomocí shlukové analýzy. Pro verifikaci správnosti počtu shluků byl použit Cophenetický koeficient (CC) a hodnoty delta⁶. Závislost mezi ukazateli kvality CR a bezpečnosti byla ověřena pomocí korelační analýzy (blíže o korelační analýze Palová & et al, 2014).

² TTCI Tourism & Travel competitiveness index se hodnotí v dvouletých intervalech 2008;2011;2013;2015

³ Krstic, B; Jovanovic, S; Jankovic-Milic, V; et al. 2016 Examination of travel and tourism competitiveness contribution to national economy competitiveness of sub-Saharan Africa countries- 2016

⁴ Statistika neevduje data CR Velké Británie, Norska, Švýcarska, Irska, regiony byly z analýzy vyloučeny

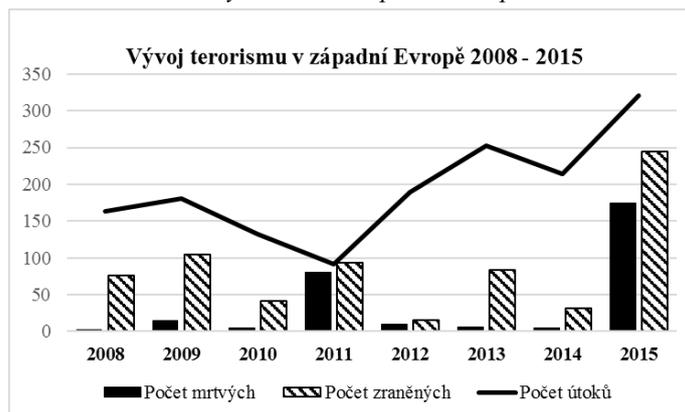
⁵ Global terrorismus data [Online] [28.5.2016] Dostupné z: https://www.start.umd.edu/gtd/search/Results.aspx?expanded=no&casualties_type=&casualties_max=&success=yes&country=78&ob=GTDDID&od=desc&page=1&count=100

⁶ Počet shluků je správně zvolen v případě, že $CC > 0,8$ a hodnoty delta (0,5) a delta (1,0) se blíží 0. Jedná se o lineární závislost

3. Vývoj bezpečnosti ve vybraných zemích západní Evropy

Jak je vidět z obrázku 2, postupně se zvyšuje počet útoků a obětí i v zemích západní Evropy (viz obrázek 2). Rok 2011 byl rokem snížení útoků, přinesl však zvýšení lidských obětí. Rychlý nárůst vystřídal mírný pokles a vývoj avizoval poměrně uklidnění, od roku 2014 se situace v západní Evropě opět vyhroutil, narůstají počty útoků a s nimi roste dramaticky počet lidských obětí.

Figure 2: Počet teroristických útoků v západní Evropě v letech 2008 - 2015



Source: Vlastní zpracování, Data Datagraver.com, 2016

Podle výsledku dat databáze GDT, bylo za období 2011 – 2015 ve sledované skupině celkem 485 útoků, nejvyšší počet útoků se odehrál v roce 2015. Nejstabilnějšími regiony jsou Portugalsko, Nizozemí a Malta (viz tabulka 1). Časté útoky a nepokoje jsou evidovány v Řecku a Francii. Ve všech regionech má meziroční vývoj počtu útoků kolísavý trend. Oproti roku 2011 se ve všech sledovaných regionech do roku 2015 počet útoků zvýšil s výjimkou Španělska a Rakouska. Podle tabulky 1 je možné považovat za nejméně bezpečné Řecku a Francii.

Table 1: Počet útoků v regionech západní Evropy v období 2011 - 2015

	Rakousko	Belgie	Kypr	Dánsko	Finsko	Francie	Německo	Řecku	Itálie	Malta	Nizozemí	Portugalsko	Švédsko	Španělsko
A	2	3	18	5	9	135	76	143	32	2	5	2	44	9
B	0	5	0	2	0	170	8	3	0	0	0	0	0	4
C	2	4	0	5	1	191	53	21	11	0	0	0	1	5
D	3	8	6	7	5	15	12	14	11	1	3	1	10	9

Source: Databáze GDT, A = počet útoků, B = počet smrtelných obětí, C = počet zraněných D = pořadí stanové jako průměr pořadí A+B+C

Intenzivní útoky posledních let se soustřeďují do Francie, při útocích za období let 2011 až 2015 bylo ve Francii 170 lidí usmrceno a 191 bylo zraněno, což tvořilo 61,7% usmrcených a tj. 40% zraněných z celkového počtu postižených v západní Evropě. Útoky na Francii neustávají. Při letošním útoku (14. 6. 2016) ve francouzské Nice přišlo o život 84 lidí a 100 bylo zraněných. Mezi nejdramatičtější útoky ve Francii (viz tabulka 2) patřily především níže uvedeny (viz tabulka 2).

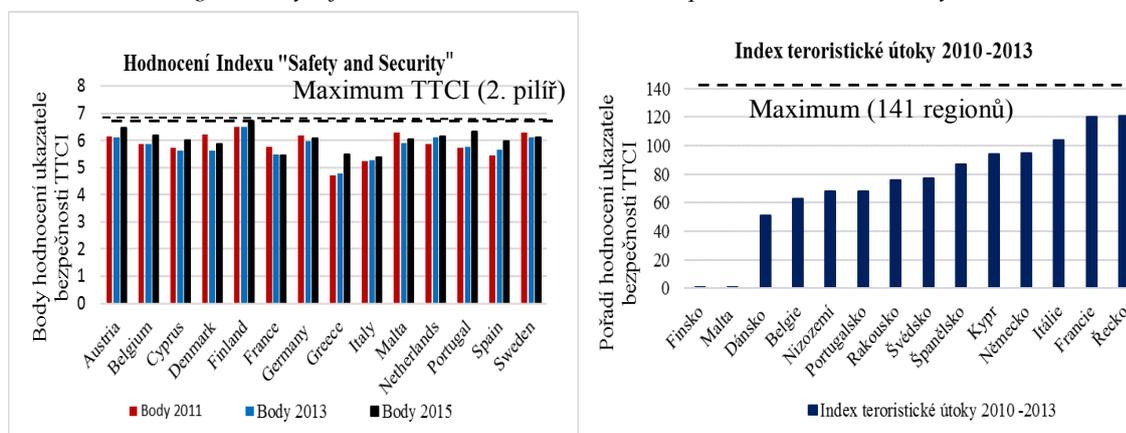
Table 2: Nejvyšší počet obětí v období 2011 - 2015

Datum	Region	Událost	Mrtví	Zranění
13. 11. 2015	Francie Paříž	Útok ISIL*	92	101
13. 11. 2015	Francie Paříž	Útok ISIL*	19	9
07. 01. 2015	Francie Paříž	AQAP*	12	12

Source: Databáze Eurostat.cz ISIL Islámský stát v Iráku a Levant * Al-Qaida in the Arabian Peninsula

Oproti tomu, podle hodnocení Indexu TTCI 2015, který je vydáván v dvouletých cyklech, je považováno za nejbezpečnější region Finsko, a to nejen v rámci hodnocení vybrané skupiny (viz obrázek 3), ale i v rámci hodnocení 141 regionů. Své prvenství si drží po celé sledované období. V roce 2015 jsou podle hodnoty bezpečí TTCI za Finskem nejbezpečnějšími regiony Rakousko (5)⁷ a Portugalsko (10). V obou regionech se hodnocení bezpečnosti postupně zlepšuje. Problémy s bezpečností mají v Řecku a Francii. Oproti Francii konkurenceschopnost bezpečí Řecka roste (viz obrázek 3, levý graf).

Figure 3: Vývoj hodnocení TTCI 2011 – 2015 a pořadí Indexu teoretických útoků.



Source: TTCI 2011; 2013; 2015

Pilíř Bezpečnosti a zabezpečení TTCI (141 regionů) byl od roku 2015 rozšířen o Index teroristických útoků, který hodnotí terorismus na stupnici 1 – 7⁸. Rovněž v tomto indexu je Finsko hodnoceno nejlépe, společně s Maltou. Podle analýzy dat GTD došlo ve Finsku k 9 útokům v posledních letech, pozitivem je, že došlo ke zranění pouze jedné osoby. Podobný vývoj se projevuje na Maltě. Nejvíce postiženými regiony podle Indexu terorismu jsou Francie a Řecko, což koresponduje z výsledků GTD (tabulka 1) a dále Itálie.

4. Komparace příjezdového cestovního ruchu a bezpečnosti

Podle postavení pilíře 2 a subindexu terorismu indexu TTCI 2015 byly na základě shlukové analýzy⁹ rozděleny regiony do 3 skupin (tabulka 3):

⁷ Hodnoty v závorkách představují hodnoty pořadí v rámci celkového hodnocení TTCI.

⁸ Hodnota 7 vyjadřuje nejlepší postavení. Je tvořen jako průměrný počet teroristických obětí (zranění a úmrtí) a počet útoků za období 2010 – 2013, blíže metodika viz TTCI, 2015.

⁹Metoda Group Average (Unweighted Pair-Group), vzdálenost Manhattan vzdálenost. Verifikace shlukové analýzy → Cophenetic coefficient = 0,82, $\Delta(0,5) = 0,3$; $\Delta(1,0) = 0,2$

Table 3: Shluky podle ukazatel bezpečnosti a indexu terorismu TCCI 2015

Skupina	Region	Úroveň bezpečnosti
1	Finsko, Malta	Vysoký index bezpečnost, nízký index terorismu
2	Belgie, Dánsko, Německo, Španělsko, Kypr, Nizozemí, Rakousko, Portugalsko, Švédsko	Střední bezpečnost, střední stupeň indexu terorismu
3	Francie, Itálie, Řecko	Nízká bezpečnost, vysoký stupeň terorismu

Source: Vlastní zpracování, data TCCI

Ve všech regionech dochází k postupnému nárůstu zahraniční klientely v HUZ, s výjimkou Finska a Kypru. Do první skupiny, která vykazuje podle hodnocení TCCI bezpečné prostředí, patří Finsko a Malta. Obliba Finska z roku 2012/2011 postupně ztrácí na dynamice (o 5,9%, viz obrázek 4) a od roku 2014/2013 dochází k celkovému poklesu příjezdů zahraničních turistů. Za poklesy stojí především redukce ruské klientely z důvodů slabé ekonomiky, ukrajinské krize a nestabilitosti rublu. Oproti Finsku obliba Malty neustává. Po počátečním meziročním poklesu 2012/2011 (o -0,02%) dochází k nárůstu počtu turistů, dynamika růstu se postupně snižuje (viz obrázek 4). Malta je bezpečným regionem s nízkým počtem útoků.

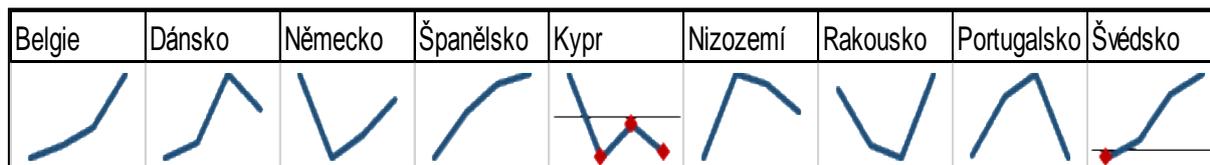
Figure 4: Vývoj a dynamika počtu nerezidentů vybraných zemí západní Evropy



Source: Vlastní zpracování, data Eurostat.cz

Druhou skupinu tvoří regiony s průměrnými hodnotami indexu, zde náleží regiony uvedené v tabulce 3 na řádce 2. Vývoj příjezdů zahraničních hostů má různorodý průběh (viz obrázek 5). Pokud bychom dále rozdělili tuto skupinu, podobný vývoj mají Belgie, Španělsko. Tyto dva regiony vykazují progresivní nárůst počtu návštěv zahraniční klientely. Španělsko se dlouhodobě v rámci vybraného vzorku destinací drží na špici. V roce 2015 jej navštívilo 55,4 mil turistů a jeho obliba roste. Oba regiony mají podobnou strukturu útoků (tabulka 1). Informace z cestovních kanceláří hovoří o tom, že Španělsko využívá bezpečnostní a politickou nestabilitu postižených regionů. Podobný vývoj jako tyto dva regiony má i Švédsko, s výjimkou roku 2012/2011, kdy došlo k poklesu propadů příjezdů zahraničních hostů. Švédsko má po roce 2013 nejvyšší dynamiku vývoje. Podobnost ve vývoji se projevuje v Rakousku a Německu. Počáteční pokles dynamiky vývoje přecházel jejímu opětovnému nárůstu. Německo zaznamenalo zvýšený zájem turistů, přestože si pohoršilo v indexu pilíře 2. O nárůsty se postarali i čeští turisté (1-4/2014; o 14,2%). Rakousko si na zvýšení dynamiky muselo počkat do roku 2014/2015. Stabilita CR Rakouska je dána stabilitou příjezdového cestovního ruchu z Německa, zvýšený zájem o cesty projevili turisté z USA, Česka a Polska. Od roku 2011 klesá obliba destinace u klientů z Velké Británie, Itálie a Nizozemí. Hodnocení bezpečnostní stránky a počet útoků Rakouska se zvyšuje (viz výše), dynamika je podmíněna oblibou cest na kratší vzdálenosti. V případě dynamiky růstu u Nizozemí, Dánska a Portugalska dochází k nárůstu a následnému poklesu v roce 2015/2014. Portugalsko zažilo meziročně pokles dynamiky o 12,5%. Podle obrázku 4 je patrné, že Kypr ztrácí v letech 2012 až 2014 klientelu, již z analýzy o přenocování a počtu hostů v letech 2007 až 2013 je zřejmé, že se dostal do fáze propadu CR.

Figure 5: Dynamika počtu nerezidentů vybraných zemí západní Evropy



Source: Vlastní zpracování, data Eurostat.cz

Třetí skupinu tvoří regiony s nedostačenou bezpečností a vysokým indexem terorismu. Tuto skupinu tvoří Francie, Itálie a Řecko. Italský příjezdový CR zaznamenal růst s kolísavou dynamikou, která byla v období 2015/2014 druhá nejvyšší po Rakousku. Podobně jako Španělsko, rovněž Itálie profituje z bezpečnostní situace Francie a Řecka. Z analýzy o počtech zahraničních turistů jsou první dvě jmenované krajiny (Francie, Itálie) po Španělsku dlouhodobě vyhledávanými lokalitami. Přestože má Itálie nižší hodnoty bezpečnostních indexů, podle počtu útoků (data GTD) byl tento nižší než v Řecku, Francii nebo Německu. V případě Francie se po počátečním nárůstu 2012/2011 dynamika růstu zpomalila (viz obrázek 5). Podle analýzy dat docházelo ve Francii po útocích v květnu 2012 (26 útoků) k bezprostřednímu snížení zájmu turistů o pobyt (oproti stejnému období v minulých letech) i v následujících, standardně nejfrekventovanějších obdobích (červenec a srpen). Oproti tomu v prosinci 2012 (24 útoků) se bezprostředně měsíc po útoku situace konsolidovala a vývoj v dalších obdobích převyšoval hodnoty minulého období. Vlivem časového prodlení nebyl oslaben CR v letních měsících. Jednotlivé útoky byly zacíleny především na majetek na Korsice, která je ve správě Francie. Vývoj po útocích v 11/2015, kdy došlo k 7 koordinovaným útokům, jimž podlehl 130 osob a 136 bylo zraněno, prochází stagnací a počty zahraničních klientů v březnu 2016 nedosáhly předešlého období. Přesto se Francii daří držet na vrcholu destinací podle návštěvnosti.

Figure 6: Dynamika počtu nerezidentů vybraných zemí západní Evropy



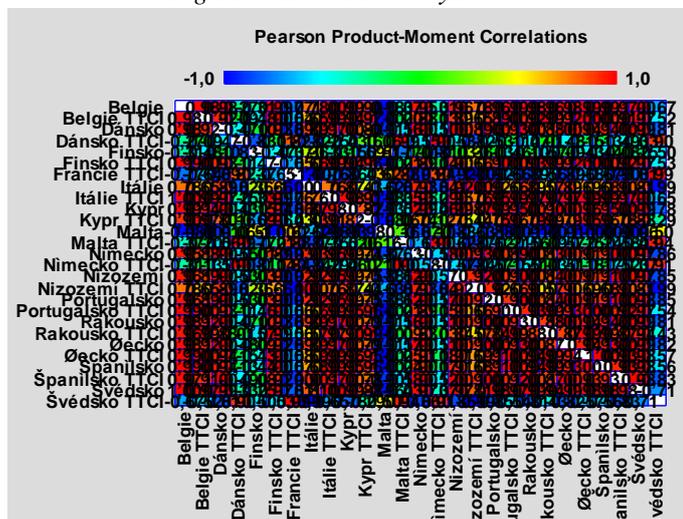
Source: Vlastní zpracování, data Eurostat.cz

Pokles zahraničních hostů v Řecku v roce 2012 (o -1,2%), který následoval po přijetí úsporných opatření Řecka, byl způsoben doprovodnými nepokoji. Po roce 2012 se v zemi CR stabilizoval, po následném růstu (o 13,5% v roce 2013/2012) opět tempo klesá. Snížení dynamiky návštěvnosti je spojováno s útoky na turisty (2013), dále s problémy dluhové krize a především s problémy plynoucími s častými nepokoji a kontrolou pohybu kapitálu. Zástupci cestovních kanceláří považují problém s výběrem financí z bankomatu za druhotný. Většina zahraniční klientely používala platební karty. Přestože se zlepšovala konkurenceschopnost ukazatele bezpečnosti do roku 2015, problémy posledních let, jak je vidět z tabulky 1, jsou časté nepokoje, stávky a především příliv migrantů, který představuje závažný socioekonomický problém a je významným ohniskem konfliktů (Botlík, 2016). Například na turistický cíl Kos v egejském moři dorazilo v roce 2015 více než 23 tisíc migrantů, problémy s přílivem migrantů potvrdila také ministryně CR Elena Kunturaová.

Analýzou vzájemných vztahů (korelace, obrázek 6) byly podpořeny závěry komparace vývoje mezi úrovní bezpečnosti vyjádřenou indexem bezpečnosti. K podobným závěrům již dospěli v případě útoků v Egyptě (1997), Tunisku (2002), (Ahlfeldt, G. M. & et.al, 2016).

Jelikož korelační analýza nedává odpověď o kauzalitě, je nutné podrobit jednotlivé vztahy kauzálním analýzám.

Figure 7: Korelační analýza



Source: Vlastní zpracování, výstup Statgraphics, Data Eurostat.cz, TPCI 2008-2015, *-1 negativní +1 pozitivní polarizace

5. Conclusion

Podobně jako u Thompsona (2011), je možné na základě komparace vývoje bezpečnosti usuzovat, že mezi vývojem návštěvnosti zahraničních hostů a bezpečností existuje vazba, že bezpečnost je důležitým aspektem prostorového rozložení mapy CR (Daneshvarinasab, A., 2012) a faktorem pro vytváření udržitelného CR. Z analýzy vyplynulo, že záleží na intenzitě útoků. Intenzivnější a stále opakující se útoky s dramatickými dopady na lidské životy budou mít dlouhodobější dopady na vývoj CR. Na druhou stranu záleží rovněž např. na kulturním a přírodním dědictví, kvalitě dopravní dostupnosti, které převažují nad obavami terorismu. Na příkladu bezpečného Finska je zřejmé, že nezáleží vždy pouze na bezpečnosti, saldo příjezdového CR je rovněž ovlivněno ekonomickou situací dominantních segmentů návštěvníků. Nesmíme zapomenout, že existují tzv. segmenty odolné vůči krizovým událostem (Hajibaba & et.al., 2015) a atraktivita prostředí, popřípadě ochota cestovat, eliminuje neochotu cestovat do krizových oblastí. Závěrem lze shrnout, že směr, jakým se bude vyvíjet příjezdový CR, je dán souhrnem faktorů. Přese všechny bariery je vidět trvalý nárůst ve většině zemí západní Evropy, které pružně reagují na teroristické incidenty a aktivně se snaží udržovat bezpečnost (Thompson, 2011).

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THE COMPETITIVENESS OF CITIES IN THE CONTEXT OF GLOBALIZATION: PROBLEMS AND PROSPECTS FOR INCREASING COMFORT

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Abstract. In the context of globalization, every city solves the problem of increasing competitiveness and self-sufficiency. However, this decision without performing a primary function - to create an environment of life and of human reproduction - is socially and economically unjustified. Environment should be comfortable and cities should be developed on the basis of relatively competitive interaction and co-operation which is not always performed. This explains the relevance of the study, in which the authors followed the works of: Kotler F., Bramezza I., Begg I., Kendall E. The purpose of research is to find theoretical and methodical substantiation of city competitiveness evaluating comfort items in the context of globalization. To achieve this objective the authors solved the problems: 1) the competitiveness of cities from the view of the comfort of living in the context of globalization is defined; 2) the competitiveness of cities and evaluation of total indicators characterizing the comfort of living is estimated; suggestions to improve it are justified; 3) an overview of best practices and global trends in the light of improving the competitiveness of cities is given, the directions of approaching these goals in Russian cities are defined. The subject of research is the factors determining the competitiveness of the city from the view of the comfort of living, and its object is the city as a socioeconomic system. The theoretical and methodical approach proposed is original, reliable, flexible; has the possibility of forecast verification of the competitiveness of modern cities in the context of globalization.

Keywords: globalization, competitiveness, the city, the comfort of living, population

JEL Classification: D61, F61, J61, O18

1. The competitiveness of the city and the comfort of the population living in conditions of the globalization

This study is based on a hypothesis: "The competitiveness of the city in the conditions of globalization - an integral characteristic of socialized labor results (Stegaroiu, 2014). These results are part of the working-age population of the city. To improve the competitiveness of the city it is important to decrease migration of the working population in other cities and regions of the country, estimated to be the most comfortable. In this connection, the comfort of living of the population is one of the dominant factors of competitiveness of the city at the present stage of development".

The city - is a territorial center and a place of the population, of individuals, of social groups united their forces (physical and mental) and material resources for the conduct of the general economy and industry in order to ensure the socio-economic security and development (Turok, 2004). The tendency of modern society based on purely economic interests prioritizes large towns and cities with resource capabilities be self-sufficient, self-sustaining population of all sides of life and competitive (Bohnstedt, Schwarz & Suedekum, 2012).

The concept of territorial competitiveness has gained ground in academic, policy and practitioner circles. In particular, urban competitiveness has generated a large literature. However, there is a danger that competitiveness at a territorial level becomes a conceptual chimera (Budd & Hirmis, 2004).

Having examined the various theories and concepts (Kresl & Singh, 2012; Begg, 1999; Cerny, 2011; Gutnikova, 2013) the authors formed a system approach their vision of *city competitiveness, defined by the presence of objective and potential possibilities of the effective implementation of the competitive potential (engaging in the economic activity of its own and attracted economic resources), in conditions of receiving and the direction of effects to the aim of improving the comfort of the population living in this city.*

According to UN projections, by 2050 over 85% of the world's population will live and work in urban areas. Today in Russia there are 1128 cities considering human localities of the Crimea, and closed administrative-territorial formations. At the beginning of 2016, 108 657 433 people, or 69% of Russia's population lived there. Over the past 25 years, 60 localities have acquired the status of town (Lenkovets & Kirsanova, 2014).

Currently, there is a steady tendency to reduce administrative and economic obstacles to the Russian people to move across the country and beyond. When you select an individual of a city one of the main reasons is the possibility of realistic expectations and improve the comfort of his life in general. In various branches of science there are many approaches to the definition of comfort and luxury (Chappells & Shove, 2005; Belyaeva, 2009; Tetior, 2010), the critical analysis and review from the standpoint of an interdisciplinary approach determined the living comfort as an integral characteristics of a favorable combination of external (political, socio-cultural, demographic, economic, natural, science and technology) and internal (management of society, social structure, communications and relations in society, security, development opportunities) factors of life of the population in the city.

1.1. The evaluation of competitiveness of cities in the Southern Federal District with items of comfort population living in conditions of globalization

The evaluation of competitiveness on the example of large cities of the Southern Federal District is made for the period 2012-2015. based on official data of the interdepartmental Unified statistical information system (EMISS) using linear scaling method used in calculating the "human development index", and based on the definition of reference points (maximum and minimum values of indicators).

Table 1: The level of city competitiveness in 2012 – 2015

City	The level of competitiveness				The place occupied in the region			
	2012	2013	2014	2015	2012	2013	2014	2015
Volgograd	0,481	0,532	0,540	0,466	2	3	3	3
Rostov-on - Don	0,516	0,609	0,505	0,535	1	1	2	2
Krasnodar	0,519	0,538	0,546	0,554	3	2	1	1
Astrahan	0,481	0,520	0,426	0,421	4	4	4	4

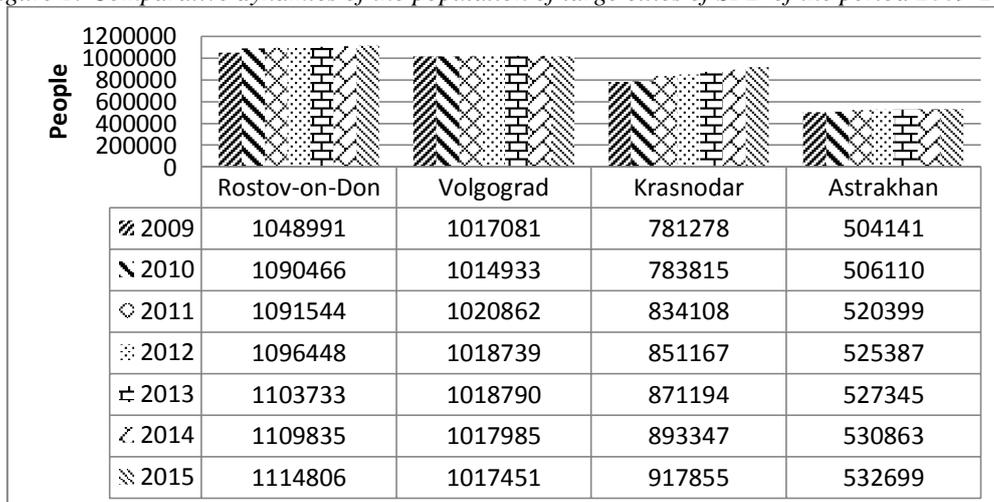
Source: compiled on the basis of authors' calculations

Since 2012, the level of competitiveness of the city of Volgograd fell to the first position and then left all subsequent years. In this regard, to determine the main factors constraining the growth of the competitiveness of the city, there is a selective analysis of the indicators that form the integral index. These results indicate that the lowest contribution to the competitiveness of the value of making the social sphere, the most important indicator of which is the provision of public housing, social services agencies and public utilities.

The analysis also showed that in the city of Volgograd there are not favorable ecological conditions due to the large number of objects that have stationary sources of air pollution, despite the fact that the current (operational) on environmental protection expenditure is very unevenly allocated in the analyzed period, and in 2012 there is a clear excess of the allocated funds (327639.4 thousand rub. to 223 production). In 2014, these costs increased by more than 26% compared to 2012 and amounted to 3,273,906 thousand rub. to 323 production, whereas in Rostov-on-Don observed uniform dynamics and in 2014 - a deficit of funds.

In addition, in submissions to the UN report "The State of the World Cities 2012/2013", there were marked out of 28 "fastest endangered cities in the world" in terms of population decline (accepted for consideration 600 cities with a population greater than 750 people), 11 Russian cities: Nizhny Novgorod - 5th place, Saratov - 6th, St. Petersburg - 11th, Samara - 12th, Ufa - 16th, Voronezh - 18th, Volgograd - 20th, Chelyabinsk, Omsk and Novosibirsk - 22nd, 23rd and 26th places respectively. The reduction in population from 1990 to 2015 in Volgograd was - 3.5%.

Figure 1: Comparative dynamics of the population of large cities of SFD of the period 2009-2015



Source: compiled on the basis of authors' calculations

The results of the statistical analysis of the population analyzed SFD cities in the time interval from 2009 to 2015 confirm the report data.

What are the reasons? It is a negative factor is the reduction of pro-industrial enterprises, bankruptcy and crisis in almost all large enterprises, resulting in the dismissal of workers and the virtual absence of labor market positions that are attractive to young people. The average number of workers' organizations in the cities of Astrakhan, Volgograd and Rostov-on-Don is reduced by 2.2%, 3.4% and 2.7%, respectively, relative to the base period and Krasnodar increases by 3.4%. The average monthly salary during the study period in all cities increases. In Krasnodar, an increase is 11.7%, 12.03% in Astrakhan, Volgograd 6.7%. The most intensive growth rate observed in the city of Rostov-on-Don, where wages increased by 12.7% in relation

to the reference year. The lowest - in Volgograd, where the growth rate was only 6.7%, which is almost 2 times lower than in the city of Rostov-on-Don.

Industrial orientation of the majority of Russian regions and cities, including Volgograd, largely determined the specifics of the population. Industrial enterprises almost completely fulfilled the function of social security and development of their employees from the standpoint of the level and quality of life, including housing, infrastructure and social facilities, providing full life, leisure, recreation, cultural development and so forth. The privatization of enterprises has led to the fragmentation of enterprises as property complexes, selling in individual parts and in many cases - to change the functional purpose (on the basis of many industrial companies are currently organized leisure and shopping centers, office buildings, etc.). Companies are working on the script, "how much is enough" production facilities that operate in almost complete deterioration mode - and the moral and physical, and functional. The owners of these companies that have received rights in the late '90s and early 2000s, neither then nor now are not interested in the development of enterprises, investing in their reconstruction, modernization and technical re-equipment. It is clear that these large-scale programs require substantial "long" investments, but because they had to run, and gradually, starting with the '90s.

Almost all manufacturing Volgograd region is concentrated in the six major cities: Volgograd, Volzhsky, Kamyshin, Mikhailovka, Uryupinsk, Frolovo, Zhirnovsk, Kotovo. In Volgograd large enterprises functioned: JSC "Volgograd Tractor Plant named of Dzerzhinsky.", JSC "Metallurgical Plant" Red October, JSC "PO "Volzhsky Pipe Plant", LLC "Lukoil-Nizhnevolzhsk", LLC "LUKOIL-Volgograd" JSC "Voltyre", OJSC "Khimprom", JSC "Caustic" JSC, "Orgsintez", JSC "Volgograd motor plant" and others. Most of these companies do not exist, or is in a state of bankruptcy and liquidation. At the same time, bankrupt enterprises are the main debtors on insurance premiums, which reduces the level and quality of life.

The crisis core enterprises are accompanied by a reduction of insurance premiums: as of January 1, 2014 in Volgograd, the total amount of debt on insurance contributions for compulsory pension and compulsory health insurance amounts to 2 billion 121.6 million rubles of which 73.3% came from bankrupt companies. The past four years - a record figure. In 2010, the bankrupt enterprises in the total amount of arrears amounted to 25.6%, in 2011 - 50%, in 2012 - 62.9%. The bulk of the debt of bankrupt enterprises, namely 84% from 7 core enterprises of Volgograd: JSC "VSW Red October" - 997.6 million rubles, OJSC "Khimprom" - 395.8 million rubles, JSC "VZ JBI-1" - 113.1 million rubles, JSC "Volgograd Shipyard." - 84.2 million rubles, JSC "Volgogradneftegazstroy" - 41.1 million rubles, LLC "Volgograd special engineering plant" - 31, 9 million rubles, LLC "Avtostroyservis" - 36.3 million rubles. A similar situation was observed in 2015.

Since personnel and social programs distressed companies were "collapsed", it has a negative impact on the comfort of living of the population, especially in areas of Volgograd, where there are industries. These areas look unattractive, and are not as such in essence and nature living in them, for example, margins of Traktorozavodskiy, Kirov, Krasnooktyabrskiy areas. In particular, in 1906 in Volgograd (then it was Tsaritsyn) near the plant "Dyumo" the settlement was founded - it was called "French" because it was inhabited by natives of France, and was divided into two parts: "Big France", where the bosses lived and employees of the plant, and "Little France", where ordinary workers lived, and Russian masters lived in the so-called "Russian village" nearby. After the October Revolution, the factory became a Soviet, and the French name "Dyumo" was replaced by "Red October". Post-war reconstruction

"Volgograd France" was held with the participation of the RSFSR Honored architect, winner of the Stalin Prize of 2nd degree E. Levitan. Today French village is in need of complete renovation, there is accommodation in the existing housing conditions and landscaping is difficult to determine how comfortable. And there are places in the city of Volgograd, a lot enough, for that matter, in any major industrial city of Russia (Saratov, Samara, Nizhny Novgorod, Rostov-on-Don and others.).

With respect to withstand the level of performance within the standards and quality of life (the official statistics say about it), the city of Volgograd assessed as insufficient uncomfortable to stay - people migrate to other regions and cities. The same trend is observed and analyzed in other cities of the Southern Federal District. Migration section of the city of Volgograd for the period 2010-2015 showed that people mostly migrate to other regions of Russia.

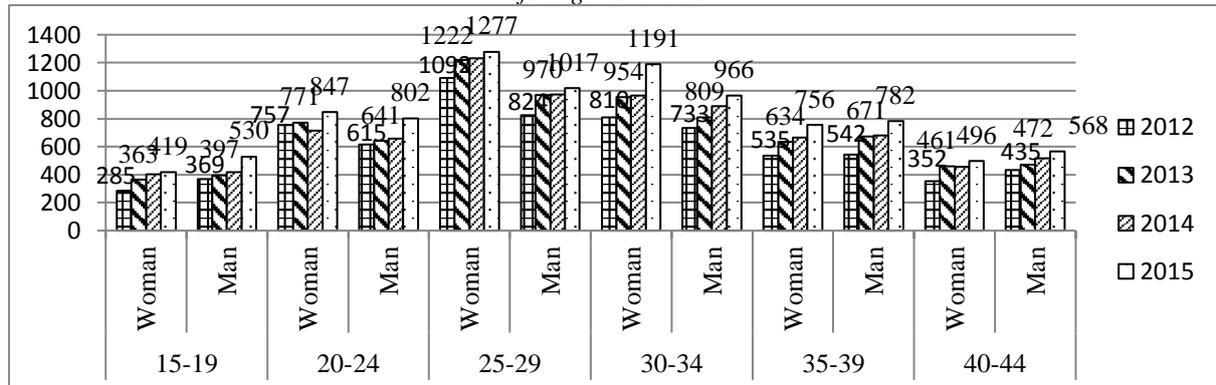
By working appeal in 2015 among the 45 largest cities of Russia Volgograd occupies 42 place in the 5 criteria: 1) the level of salary, 2) the ratio of wages to the subsistence level, and 3) a competition for the job, 4), the number of unemployed, 5) mobility. In the first three indicators Volgograd has a low valuation. After Volgograd Krasnodar, Orenburg and Togliatti follow. From cities SFD presented in this ranking, Sochi occupies 31 st place, Rostov-on-Don - 36th, Astrakhan - 39th, Volgograd - 42nd and Krasnodar 43rd, 4 major cities of SFD, all of which are administrative centers, are unattractive to the working age population [27]. It turns out that macro-region with the most favorable conditions for doing business and high business activity is not competitive in terms of attracting the working population in the major cities.

According to a survey conducted in February-March 2016 department of management and development of urban economy Volgograd State University of Architecture and Civil Engineering, from 2718 respondents, only 18% (499 pers.) would remain to live in the Volgograd region. The priority for the move to on-standing residence is still the SFD, but it's the city of Krasnodar, Rostov-on-Don, Sochi - 35.2% (957 persons), Central Federal District chose 13.6%, Crimea – 10.4%, North-West, Siberian, North Caucasian - 5.3, 4.6 and 4.5%, respectively, Far East and Ural approximately equal by choice - 3.6 and 3.2%. The most unattractive was the Volga Federal District - 1.1% chose it (Maksimchuk & Pershina, 2016).

The final in the region and Krasnodar list is of interest from the point of view that as well as operate on the attractiveness of employment is low-yard thing - 43 out of 45 cities (Volgograd rating - 42), on the level of performance and quality of life they are almost comparable however, Krasnodar is assessed as more at-attractiveness or comfort to live according to the survey. Also, the choice of res respondents fell in the Crimea, Nizhny Novgorod, Izhevsk, Vladivostok, Kaliningrad, Saratov, Kazan, Kuzbass, Kislovodsk, Yalta and Omsk, but this individual preferences.

The survey data are confirmed by the results of the statistical analysis of gender-age structure of migrants from the city of Volgograd in other cities and regions of the Russian Federation and foreign countries (Fig. 2).

Figure 2: Gender and age structure of migrants from Volgograd to other cities and regions of Russia and foreign countries



Source: compiled on the basis of authors' calculations

In other analyzed cities (Krasnodar and Rostov-on-Don) there is pleasant environment. Of course, more evidence is needed detailed and extensive analysis of statistical data in the studied aspect concerns competitiveness of the city in comfort criteria, and that the authors devote after-blowing operation.

1.2. Trends and ways to improve the competitiveness of the city in the context of population living comfort

To the fullest extent to create the material basis of life, and those of its materialized forms, which provide a comfortable living of the population to fully ensure their own average citizen of any city in the world can't (Bannò et al., 2013). Otherwise, all we chose to be the organization of life in the form of individual, multiple, geographically-permanent, households. Modern views on the comfort of living are very diverse, as evidenced by the above, but it becomes obvious fact to choose the levels and facets of comfort on economic grounds, in the first place, housing the purchase price and the stand its operation and reasonable balance . For example, the cities of the South Federal District, Krasnodar leader in the past 5 years, according to the parameters and, as can be seen from the data statistical analysis and opinion poll cited above, it is evaluated as a more comfortable, attract working-age population from other cities. The result of it is a leader in competitiveness in 2014-2015.

History, present and trends of society in globalization proof that the comfort of living in a more individual correlates directly with the housing in the first place (Antonelli & Fassio, 2015). The cost of purchase of housing and the cost of its operation - important cost items that individuals plan and are willing to incur to achieve the desired level of comfort of living (Temiz et al., 2016). Sometimes the purchase of the desired property becomes an intolerable burden on its operation cost, and the Southern Federal District - a region in which there are all natural and geographical conditions to optimize their relationship. In particular, it concerns the presence of all the conditions and opportunities for the mass construction of ecological and energy-efficient housing, is very economical to use, as evidenced by the world practice.

Today does not reach energy-efficient houses in our country and ten, and they are built proactively. However, some of the technologies that increase the energy efficiency of construction projects and energy renovation of existing housing, are beginning to be used in our country, and this can increase the comfort of living and in terms of reduced operating costs, and in terms of the reproduction of labor potential. In this housing the individuals recover quickly spent force, accumulate their reserves and thus are better able to work.

In this regard, the main directions of improving the comfort of living of the population of cities SFD authors consider:

- implementation of energy saving potential based on the city of energy saving programs;
- improving environmental comfort of living of the population of the city based on a program of environmental development of the city forming enterprises;
- implementation of the program "Regional program overhaul of the common property in apartment buildings" using energy-saving technologies and materials;
- organization really functioning hotline on emerging population issues of quality of life and comfort of his residence (education, health, housing, etc.) (Perschina, 2016).

2. Conclusion

1. The competitiveness of cities in the context of globalization can be determined by the level and quality of life that define fully the institutional building and debugging the human living environment, however, these parameters do not show the role of human identity and its ownership and "fusion" to this territory (Carillo & Papagni, 2013). It is possible to determine through the evaluation of comfort of living, which is in modern conditions, one of the key factors in the migration of the workforce. In other words, the competitive city is in which to live more comfortably able-bodied population.
2. Providing comfort of the population living in a large industrial city - an important aspect of improving competitiveness. Decisions, actions and measures of organizational, economic, regulatory and methodological, legal and social issues should be defined in three contexts: 1) Strategic (research, evaluation and prediction of the human development index, the level and quality of life, taking into account possible changes in the global external environment and living environment); 2) tactical (medium-term development programs and socio-economic development plans in the context of the city's competitiveness, taking into account the population living comfort); 3) operational (development and implementation of measures to address the problem areas, and more effective implementation of the competitive potential from the standpoint of increasing the comfort of the population of the city of residence).

The proposed approach to the definition of the authors of the comfort of living as a key factor of competitiveness of a modern city in a globalization is entitled to a place in economic theory and practice, as evidenced by the results of empirical measurements. This approach should be used in the development and scientific substantiation of programs and strategies for socio-economic development of the cities of Russia in the conditions of globalization.

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MULTILATERAL ASPECTS OF ECONOMIC PARADIPLMACY IN THE CZECH REPUBLIC

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Abstract. During the 20th century, the diplomacy and diplomatic practice had to face many challenges. New topics in international relations, new forms of communication, possibilities and problems related to globalization and the changes in organization of international system have led to the involvement of new actors into international relations (in the wider sense). In recent years, we are witnessing also more and more intensive participation of Czech regions and some cities in so-called paradiplomatic activities. This paper focuses on economic paradiplomacy in the Czech Republic and introduces a new topic – paradiplomatic potential of associations of regions (so called Euroregions). In the introductory part, it provides a detailed look at the definition of economic paradiplomacy and multilateral paradiplomacy, their actors, their motivation, expectations and available instruments of paradiplomacy. It compares activities of particular regions in the area of economic diplomacy (based on analysis of strategic development documents and available empirical data). Further, the contribution concentrates on multilateral paradiplomatic activities; it deals in depth with the situation in selected euroregions and presents and assesses the project of the European region Danube - Vltava, which reflects the cooperation between Czech, German and Austrian regions. The main aim of the contribution is to assess the paradiplomatic opportunities of euroregions and the extent in which economic aspects are present in their activities.

Keywords: economic diplomacy, paradiplomacy, Czech Republic, European Union

JEL Classification: R11, F15, R50

1. Introduction

Paradiplomacie ve smyslu zahraniční aktivity měst a regionů (Drulák, Königová & Kratochvíl, 2004) je zaznamenávána, pozorována a studována od 70. let dvacátého století. V českém prostředí dochází k rozvoji paradiplomatických aktivit zejména v posledních dvanácti letech. Především po vstupu do Evropské unie a v souvislosti s možností čerpat dotace z evropských fondů podnikají jednotlivé kraje, obce a svazky obcí v ČR různé kroky k zajištění dotací. Zastoupení většiny krajů v Bruselu a další aktivity směřované vůči Evropské unie ale zdaleka nepředstavují jedinou formu paradiplomacie.

Tento příspěvek se zaměřuje na aktuální aspekt české paradiplomacie, který již byl v domácím prostředí částečně rozpracován, a to na tzv. ekonomickou paradiplomacii (Trávníčková & Peterková, 2014; Trávníčková & Zemanová, 2016). V široké škále paradiplomatických aktivit, které jsou podnikány s cílem přispět k ekonomickému rozvoji a

prosperitě regionu, se soustředíme na multilaterální aktivity, které dosud nebyly důkladněji prostudovány. Pokud jde o aktéry, kteří mohou paradiplomacii provádět, v ČR přicházejí v úvahu jak kraje, tak obce a svazky obcí. V tomto textu se zabýváme pouze aktivitami krajů.

Navazujeme jednak na dosavadní poznatky o ekonomické paradiplomacii jako jednom z významných směrů paradiplomatického působení krajů a na srovnání ekonomických cílů ve strategických materiálech jednotlivých českých krajů (Trávníčková & Zemanová, 2016). Orientačně se opíráme také o základní komparaci euroregionů (Branda, 2009) s tím, že podrobněji pracujeme pouze s euroregiony multilaterální povahy a z nich pouze s těmi, jejichž členy jsou kraje. Podrobněji se budeme věnovat jedinému evropskému regionu Dunaj – Labe.

Cílem příspěvku je zhodnocení možností, které multilaterální regionální spolupráce (formou euroregionů a evropského regionu) nabízí zapojeným krajům v ekonomické oblasti. Vycházet budeme jak ze zakládajících dokumentů, které s jednotlivými regiony souvisí, tak z dalších zdrojů, které jednotlivé regiony prezentují na svých webových stránkách.

2. Cíle paradiplomatických aktivit v ekonomické oblasti

Ekonomické motivy v různé formě – snaha o získání přímých zahraničních investic, podpora exportu domácích výrobců a zvýšení zájmu turistů o region – jsou obvykle důvodem pro zahájení paradiplomatických aktivit regionu.¹⁰ Ekonomická vrstva (srov. Lecours, 2008) paradiplomacie je neoddělitelně propojena s dalšími vrstvami, např. vrstvou politickou, vrstvou spolupráce (v českém prostředí dobře viditelnou v oblasti školské spolupráce a omezeně oblasti vědecké a výzkumné spolupráce), ale i s vrstvou environmentální a kulturní (ochrana resp. propagace specifických kulturních hodnot a projevů regionu).

V českém prostředí bylo na základě srovnání strategických dokumentů českých a moravských krajů identifikováno následujících pět ekonomických aspektů paradiplomacie: podpora přílivu přímých zahraničních investic, podpora cestovního ruchu (návštěv zahraničních turistů), internacionalizace vědy a výzkumu a omezeně také získávání specifické pracovní síly. Zatímco první dvě uvedené priority formulovaly téměř všechny kraje, podporu turistického ruchu si formálně klade za cíl jen devět a internacionalizaci vědy a výzkumu jen sedm ze třinácti srovnávaných krajů. Specifickou pracovní sílu si podle výzkumu z roku 2015 přála získat jen dvojice krajů (Plzeňský & Zlínský) (srov. Trávníčková & Zemanová, 2016).

3. Nástroje bilaterální a multilaterální paradiplomacie

K dosahování ekonomických cílů využívají kraje různé nástroje. Mohou zřizovat svá stálá zastoupení u zahraničních institucí (v praxi u Evropské unie).¹¹ Tak jako města hojně navazují vztahy se zahraničními městy, mohou kraje navazovat vztahy s partnerskými regiony. Zástupci krajů mohou ve spolupráci s (krajskými) hospodářskými komorami a místními podnikateli podnikat zahraniční výjezdy. Dlouhodobě oblíbenou a dobře viditelnou formu přeshraniční spolupráce obcí (a dalších subjektů) představují tzv. euroregiony.

¹⁰ Výjimkou potvrzující pravidlo mohou být silné motivy politické, kdy region prostřednictvím paradiplomatických aktivit usiluje primárně o potvrzení své vlastní identity, odlišné od identity státu (např. Flandry, Quebec, Katalánsko, Baskicko, Skotsko). Namísto obvyklých ekonomických cílů se region v takovém případě snaží zejména navazovat vztahy, které potvrzují specifičnost a jedinečnost regionu, případně ovlivnit chování sousedícího regionu (Lecours 2008, McHugh 2015).

¹¹ Srov. např. Tatham, M. - Thau, M. 2013, Brusis 2010.

V tomto textu se zaměřujeme na mnohostrannou – multilaterální – paradiplomacii; multilaterální aspekt vnímáme nikoliv v čistě matematickém, ale v mezinárodněpolitickém pojetí, jako spolupráci subjektů z alespoň tří států. Vedle vybraných euroregionů se budeme zabývat i relativně novou formou spolupráce, kterou reprezentuje evropský region Vltava – Dunaj.¹² Aby byl seznam mnohostranných forem spolupráce obcí a krajů kompletní, nelze opomenout evropské sdružení pro územní spolupráci (ESÚS). Na rozdíl od euroregionů a dalších sdružení bez právní subjektivity se vznik a fungování ESÚS opírá o pevný právní rámec vycházející z evropského práva.¹³ I když se podle dotazníkového šetření Pavla Brandy (Branda 2009) většina euroregionů v ČR nebránila transformaci v ESÚS nebo ji zvažovala, dosud takové seskupení v oblasti regionální spolupráce nevzniklo.¹⁴

3.1 Euroregiony

I přes bohatou praxi naráží studium euroregionů¹⁵ stále na terminologické překážky. Pojem euroregion není právně definován a připouští tedy relativně volné užití.¹⁶ Euroregiony obvykle ve vztahu ke svému fungování odkazují na Evropskou rámcovou úmluvu o přeshraniční spolupráci mezi územními orgány, která byla přijata v roce 1981 mezi členskými státy Rady Evropy.¹⁷ Úmluva se ale nijak nevyjadřuje k formám spolupráce, ani nezmiňuje výraz euroregion; stanoví pouze, že „[p]ro účely této úmluvy znamená termín přeshraniční spolupráce jakékoliv dohodnuté jednání, jehož cílem je posílit a rozvíjet sousedské vztahy mezi územními společenstvími nebo úřady dvou nebo více smluvních stran, a uzavírání jakýchkoli dohod a smluv nezbytných k tomuto účelu.“ (čl. 2 odst. 1 Úmluvy). V praxi se můžeme setkat s euroregiony založenými na základě veřejného práva, soukromého práva nebo bez právní subjektivity.

K orientaci v problematice regionů výrazně přispívá Asociace evropských hraničních regionů (AGEG/AEBR). Ta na svých internetových stránkách uvádí nejen seznam regionů, které jsou členy asociace, ale i celkový přehled všech euroregionů.¹⁸ V Evropě vznikají euroregiony a jim podobné struktury již od roku 1958. Do devadesátých let jich vzniklo více jak 30. Stejný zdroj uvádí v roce 2006 jejich počet na výši zhruba 130 (Poštolka & Branda, 2009). V českém prostředí byl zásadní rozmach zaznamenán od devadesátých let. Podle informací zveřejněných Českým statistickým úřadem jsou k 31. 12. 2015 české obce (případně další subjekty) zapojeny do třinácti euroregionů (viz obr. 1).

Členskou základnu euroregionů s českou účastí tvoří zejména obce a města z daného území. Ty se účastní buď samostatně, nebo jako členové určitého sdružení. Pokud to zakládající dokument (statut, stanovy) euroregionu připouští, mohou být členy euroregionu i jiné subjekty, jako jsou hospodářské komory, vysoké školy, firmy, organizace zabývající se ochranou životního prostředí nebo kraje (Branda, 2009). Účast krajů v českých euroregionech limituje i

¹² V minulosti a zejména pro přeshraniční spolupráci obcí byla určena impulzní centra.

¹³ Nařízení Evropského parlamentu a Rady (ES) č. 1082/2006 ze dne 5. července 2006, o evropském seskupení pro územní spolupráci (ESÚS).

¹⁴ K základní charakteristice ESÚS srov. Kaňka – Ježek, 2013 a Dušek, 2013.

¹⁵ Kromě výrazu euroregion se lze setkat také s obsahově totožnými pojmy euregio, euregion, europaregion a dalšími.

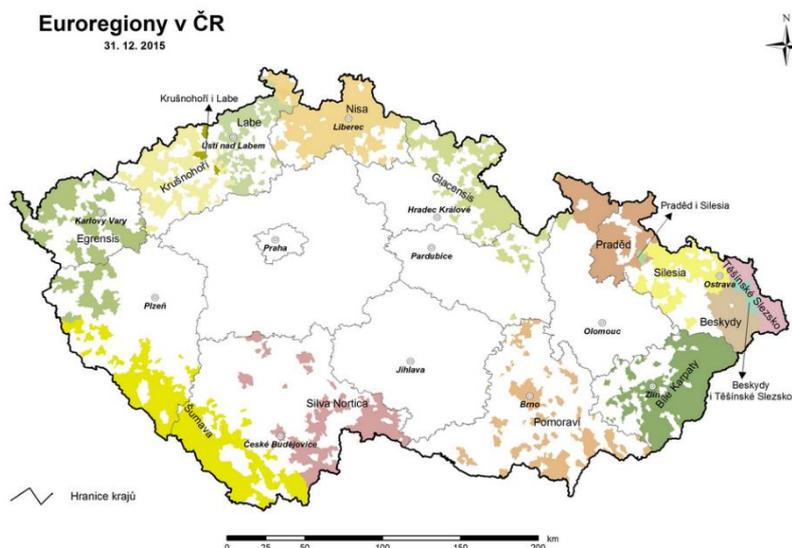
¹⁶ Branda (2009) představuje čtyři možná pojetí slova euroregion: 1. území, na kterém působí národní část euroregionu; 2. přeshraniční území, na kterém se odehrává přeshraniční spolupráce; 3. právní subjekt sdružující členy národní části euroregionu; 4. přeshraniční instituce (organizace) sdružující národní sdružení.

¹⁷ Ratifikační listina České republiky byla uložena u generálního tajemníka Rady Evropy, depozitáře Úmluvy, dne 20. prosince 1999. Text úmluvy byl vyhlášen pod č. 94/2000 Sb. m. s.

¹⁸ http://www.aebr.eu/en/members/list_of_regions.php

skutečnost, že kraje formálně vznikly teprve v roce 2000, kdežto většina (deset ze třinácti euroregionů na území ČR) byly ustaveny před rokem 2000. V současné době se účast kraje objevuje u euroregionů Nisa, Glacensis¹⁹ a Šumava.²⁰

Figure 1: Euroregiony v ČR



Source: Český statistický úřad

Požadavek multilaterální spolupráce v podobě účasti subjektů z více jak dvou států do značné míry ovlivňuje i počet dále zkoumaných euroregionů. V českém prostředí se jedná o euroregiony Nisa, Beskydy, Pomoraví a Šumava (viz tab. 1). Z toho pouze v případě Nisy a Šumavy je zapojen i kraj a proto se dále budeme podrobněji zabývat jen těmito dvěma euroregiony.

Table 1: Euroregiony v ČR - formy účasti

Euroregion	Rok vzniku	Forma		Účast kraje
		Bilaterální	Multilaterální	
Nisa	1991		X	X
Labe	1992	X		
Krušnohoří	1992	X		
Egrensis	1993	X		
Šumava	1993		X	X
Glacensis	1996	X		X
Praděd	1997	X		
Těšínské Slezsko	1998	X		
Silesia	1998	X		
Pomoraví	1999		X	
Beskydy	2000		X	
Bílé Karpaty	2000	X		
Silva Nortica	2002	X		

Source: vlastní zpracování na základě webových stránek a materiálů jednotlivých krajů.

¹⁹ Členy euroregionu Glacensis jsou všechny pokryté kraje: Královéhradecký, Pardubický i Olomoucký.

²⁰ Přidružené členství má Olomoucký kraj ve vztahu k regionu Praděd. U euroregionu Silva Nortica, kde Branda (2009) uvádí, že je kraj členem se zvláštním statutem, není kraj v seznamu členů uveden, s euroregionem ale spolupracuje jako partner na konkrétních projektech.

3.2 Evropský region Dunaj - Vltava

Evropský region Dunaj – Vltava (dále ERDV) představuje novou úroveň regionální spolupráce v prostoru Evropské unie (Plán strategií a opatření, 2013). Jak uvádí Kaňka a Ježek (2013), vzniku ERDV předcházela od ledna 2011 diskuze o možné organizačně-právní formě. Uvažována byla i možnost založit evropské seskupení pro územní rozvoj, zástupci zúčastněných stran se ale nakonec rozhodli pro pracovní společenství bez právní subjektivity.

ERDV je na rozdíl od dříve zmiňovaných euroregionů entitou, kde jsou primárními účastníky právě kraje a nikoli obce a města. Jedním ze základních cílů je iniciace hlubší spolupráce mezi zúčastněnými regiony. Jedná se o sedm regionů ze tří zemí (Německo, Česko a Rakousko). Konkrétně se jedná o Horní Falc, Dolní Bavorsko, Plzeňský kraj, Jihočeský kraj, kraj Vysočina a Horní Rakousko a Dolní Rakousko. Ambicí je, kromě rozsáhlé spolupráce, dle vyjádření hornorakouského hejtmana Josefa Pühringera, vytvořit důstojnou protivaheu metropolitním regionům Vídně, Prahy a Mnichova (Zvláštní zpravodaj RMOÖ, 2015).

4. Ekonomické aspekty multilaterálních aktivit českých krajů

4.1 Ekonomické aspekty v paradiplomacii euroregionů

Brandou (2009) provedená analýza euroregionů v České republice zkoumala mimo jiné tematické zaměření jejich činnosti. Jedním z návodných kritérií byl počet pracovních skupin, které se zabývaly konkrétním tématem (ve skupině všech 13 českých euroregionů). S ohledem na ekonomickou paradiplomacii je příznačné, že nejstudovanějším tématem byl cestovní ruch s počtem 10 pracovních skupin. Následovaly doprava, životní prostředí a kultura s počtem 6 skupin. První pěti témat uzavírá oblast hospodářství s 5 pracovními skupinami (Brandou, 2009).

Při studiu materiálů se ve zkoumaných euroregionech (Nisa, Šumava) objevuje především snaha o celkový regionální rozvoj, často s výraznou orientací na zlepšení podmínek rozvoje cestovního ruchu v dané oblasti. Sledovaná témata lze rozdělit do dvou tematických úrovní, a to za prvé oblasti, které naplňováním stanovených cílů vytváří základní podmínky pro rozvoj území, kde se rozvoj ekonomické paradiplomacie ve smyslu podpory exportu, podpory investic či prezentace výsledků vědy a výzkumu, potažmo péče o dobré jméno státu či regionu objevuje až jako možný důsledek těchto činností. Druhou úroveň představují činnosti, které jsou již přímo orientovány na ekonomickou paradiplomacii a cíleně rozvíjí a také otevřeně zmiňují v dokumentech zejména podporu exportu, příliv investic a podporu cestovního ruchu.

4.1.1 Euroregion Nisa

V aktuálním strategickém dokumentu euroregionu Nisa se mezi prioritními tématy objevuje celkem šest oblastí: doprava; hospodářství a cestovní ruch; ochrana životního prostředí a klimatu, energetika; řízení rizik; kultura, vzdělávání a věda; podpora přeshraniční spolupráce. Většina těchto oblastí patří do první tematické roviny zaměřené na rozvoj podmínek především pro vyšší míru exportu, investic i cestovního ruchu. Určitou výjimku představuje druhá z prioritních oblastí věnovaná rozvoji hospodářství a cestovního ruchu. V části zaměřené na hospodářství je výslovně zmiňován rozvoj přeshraničního hospodářského prostoru, spojený s řadou výhod pro investory. Mezi vhodnými aktivitami je uvedena i spolupráce škol s podniky nebo společná prezentace regionu jako společného hospodářského prostoru. Ve vazbě na oblast cestovního ruchu je zmiňována především koordinace úsilí, rozvoj podmínek a infrastruktury a také propagace produktů cestovního ruchu (Strategie euroregionu Neisse – Nisa – Nysa, 2013).

Obdobně lze vyhodnotit i ostatní tematické priority, tedy jako zaměřené v první řadě na rozvoj daného území a s tím související rozvoj podmínek pro následné projevy ekonomické paradiplomacie.

4.1.2 Euroregion Šumava

Na rozdíl od euroregionu Nisa jsou strategické dokumenty euroregionu Šumava navázány na evropské programy rozvoje, a to i po formální stránce. Dokladem je Dispoziční fond pro česko-bavorské příhraničí na léta 2007-2014. V rámci tohoto programu lze témata možných projektů dělit především podle jejich investičního charakteru. První oblastí byly projekty neinvestiční v oblastech jako je kultura nebo místní demokracie, zmiňovány byla ovšem i témata jako hospodářský rozvoj, cestovní ruch nebo životní prostředí. Druhou skupinu tvořily malé investiční projekty, které se většinou zaměřily na rozvoj podmínek pro cestovní ruch, životního prostředí nebo historických tradic (Výroční zpráva za rok 2015, 2015).

Zároveň byl v roce 2014 schválen nový Program přeshraniční spolupráce Česká republika - Svobodný stát Bavorsko. Cíl EÚS 2014-2020. (Program přeshraniční spolupráce..., 2014). Také tento plán stanovil několik tematických prioritních os pro navrhované projekty. Objevil se zde výzkum spolu s technologickým rozvojem, oblast životního prostředí, investice do vzdělávání, udržitelné spolupráce a také technické pomoci. Tyto programy jsou velmi úzce navázány na rozvojové programy Evropské unie. S ohledem na výše zmiňované oblasti ekonomické paradiplomacie (v činnosti krajů) je možné tyto programy zahrnout rovněž do první tematické roviny, vytvářející podmínky pro následnou podporu exportu, investic či dalších souvisejících oblastí.

Oba zmiňované euroregiony se soustředí především na celkový rozvoj území. Jakkoli je možné identifikovat styčné body a průniky s oblastí ekonomické paradiplomacie, má jejich zaměření především širší společenský význam. Propojení s oblastí ekonomické diplomacie, tak jak je chápána českou státní správou spočívá především ve vytváření podmínek adekvátního územního rozvoje, který tvoří pro ekonomickou diplomacii nutný přípravný stupeň.

4.2 Ekonomické aspekty v paradiplomacii evropského regionu Vltava – Dunaj

Ve strategickém plánu pro tento evropský region (Plán strategií a opatření pro Evropský region Dunaj – Vltava) se mezi hlavními prioritami objevuje především důraz na inovace a růst, a to jak v oblasti školství, vědy a výzkumu, tak i spolupráce podniků (Plán strategií, 2013). Evropský region také ve svých prioritách staví na tzv. megatrendech světového vývoje, jako jsou například demografické změny, otázky globalizace nebo klimatických změn. Na ně reagují i strategie jako Evropa 2020, která rovněž patří ke zdrojům inspirace při formování evropského regionu. Strategie je reakcí evropských institucí, Evropské komise především, na hospodářské problémy, jejím cílem je dosažení udržitelného hospodářského růstu a vyšší konkurenceschopnosti (Evropa 2020, 2016). V souvislosti s ekonomickou paradiplomacií je důležitým pojmem právě konkurenceschopnost.

Evropský region vytváří prostředí pro kooperaci podniků a přeneseně také podporu exportu. Příkladem může být každoročně pořádaný Hornorakouský den exportu, kde v letošním roce budou právě pod hlavičkou ERDV přítomni zástupci českých krajů, aby přiblížili zájemcům možnosti v oblasti exportu a obchodu, například vstupu na trh nebo příležitostí pro investice. Existuje i řada dalších příkladů, které dokládají eminentní zájem představitelů ERDV na rozvoji vzájemného obchodu, posílení exportu a investic a tím i posílení pozice evropského regionu na mapě Evropské unie.

5. Conclusion

Ekonomická paradiplomacie je důležitým aspektem činnosti krajů v jejich snaze o celkový rozvoj. Při identifikaci cílů ekonomické paradiplomacie v multilaterálních aktivitách krajů na příkladu euroregionů i nově vytvořeného evropského regionu lze vysledovat, že v činnosti euroregionů na multilaterální úrovni (součinnost subjektů z více jak dvou států) představuje klíčovou oblast právě regionální rozvoj. Častým tématem je v této souvislosti oblast rozvoje cestovního ruchu, především ve smyslu rozvoje podmínek, investičních projektů, které mají za cíl vytvořit předpoklady pro vyšší atraktivitu daného území a tím i vyšší počet turistů. Obdobný postup lze vysledovat i v oblasti dopravy i v dalších tématech, kterými se euroregiony zabývají. Ve vztahu k ekonomické paradiplomacii lze konstatovat, že uvedené činnosti především vytváří základní podmínky pro rozvoj regionu.

Aktivity, spojované s ekonomickou paradiplomacií ve smyslu podpory exportu, zajištění zahraničních investic i rozvoje mezinárodního cestovního ruchu lze identifikovat v dokumentech i činnosti především evropského regionu Dunaj – Vltava. Ostatně aktuální evropské strategie zaměřené na rozvoj konkurenceschopnosti (které představují jádro ekonomické diplomacie jednotlivých států včetně ČR) byly jednou z inspirací pro založení evropského regionu. Zajímavým momentem jsou i snahy o přeshraniční prezentaci výsledků vědy a výzkumu, které také patří k aktuálním trendům ekonomické diplomacie na státní úrovni. Lze tedy konstatovat, že dochází k postupnému sbližování priorit státní i regionální úrovně.

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MANAGER'S COMPETENCE IN THE CONTEXT OF GLOBALIZATION: CASE OF LITHUANIA

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Abstract. Manager's competences and their influence on the relationships in organizations will be discussed in the paper. The idea of sustainable leadership stipulates organizations to change their behaviour for the benefits of interested parties. Therefore, it is important to raise manager's competence as well as sustainable leadership awareness to ensure collaboration, creativity and good working results in global context. Potential of organization to create favourable working environment through cooperation, precision, and the ability to combine different actions is based on manager's competences. Therefore, it is necessary to raise awareness of all employees about managers competences and sustainable leadership that would enable to create positive relationship and communication between manager and employees, setting clear future visions and activities in organizations. It is highly important that managers develop certain competences to motivate employees to work at their full potential, to complement each other making a working group stronger, more valuable and united. Research problem – employees don't have sufficient knowledge about managers competences and sustainable leadership in organizations in Lithuania. Purpose of study – to analyze employees' opinion and understanding about sustainable leadership and to define manager's competences in organizations of Lithuania. Research methods – systematic scientific literature analysis, survey, quantitative research, analysis of empirical data. The results of the survey showed that employees have not enough knowledge about sustainable leadership and manager's competences should be developed in private and public organizations in Lithuania in the context of globalization.

Keywords: globalization; manager's competence; sustainable leadership; communication; culture of organization.

JEL Classification: A13, M12, M15

1. Managers' competences in global context

More often leadership is being treated as not only practical skills, but also as competence. Competence is characteristics of the person that make her/him to handle her/his job successfully. The definition of the competence contains three fold entity – person's knowledge, skills/abilities and values that enable more effective actions in a specific working environment. It is highlighted that the results of a job and the whole success of the company depends on the manager's and employees competences. When analysing competences, it is very important to understand the fact that they are not only a part of the characteristics of the personality, but also can always be seen in actions of the person, and when they are being valued they must be shown externally (Whiddett & Hollyforde, 2003). What is more, it is very important to foresee what kind of competences will be useful in the future. That is the reason why it is important to

establish person's the most important competences, and also to be able to identify needs of the development of the particularly important competences within the processes of globalization. It is highly significant to develop person's competences, if successful results are wanted to be achieved in short and long-term plans of organization. Authors from Lithuania (Savaneviciene et al., 2008) state that competences can be described as the totality of knowledge, skills, abilities and regulations, which are essential for efficient work in organizations. They can be described as: *Objective competence; Social competence; Conceptual competence*.

Objective competence is the specific knowledge of the working field and abilities, and understanding of processes and technologies, market and competition or manufactures' and services' field. *Social competence* is the ability to work and communicate with people. It is the qualities and capabilities of the person to adapt in a social environment. *Conceptual competence* is the systematic thinking, ability to simulate in certain situations by using versatile understanding and experiences and clear knowledge of the processes that are happening in global context. These competences are getting more and more valuable in a global world of a business, and it is very important to managers because they let maintain the advantage from the perspective of a human factor. It is possible to distinguish four strategically important groups of the competences, which establish guidelines for developing manager's competence in order to connect it with the use of the possibilities of career (DuBrin, 2016). These groups are:

- Leadership (*motivation; initiative; empathy; self-expression*);
- Having a vision (*strategic ruling; accepting the changes; innovations; making decisions*);
- Purposefulness (*reaching the goal; procedural competence; learning and getting better at what person is doing; control of knowledge*);
- Collaboration (*working in a group; communication; control of conflicts*).

For a successful business extension, it is not enough to trust personal intuition or feelings of businesses, but it is important to find the strategies that would allow employees to show their abilities to take responsibilities. This kind of leadership is one of the successful management functions. The manager has to encourage and support employees, raise their understanding of the value, notice employees' abilities, listen to their problems and help to solve them, and also managers have to be constructive and agile if the employees make a mistake. Successful managers are able to reach such kind of management when employees want to do what s/he asks them to do and be loyal to her/him. Therefore managers can rely on employees, trust them and not to control them.

Strategic thinking is the non-stop enquiries if every activity will be useful for organization in the long-term future. It is the ability to make right decisions, to understand the global environment holistically, to interpret it by using analytical thinking and creativeness. However, having a vision does not assure the success of the organization. Success to reach the goal depends on managers and employees' personal characteristics: determination, precision, cooperation, communication, flexibility, agility and etc. (DuBrin, 2016). Life-long learning and personal development for positive belief in one's abilities to learn can ensure acquisition not only of new information and skills, but can also enable organization to set and reach goals in short and long – term future. The ability to collaborate, to work in group assisting each other, to communicate effectively may guarantee harmonic management in organizations. During the processes of cooperation a lot of problems arise due to communication culture: the climate of organization, relationships, values and moral attitudes. Moreover, one of manager's tasks is to demonstrate the ability to make a psychological contact, to listen actively, to express ideas

clearly and accurately. It is significant to create mutual relationships showing empathy and interest in employees' problems (Mayer, Salovey, Caruso, 2004). Managers, if they are socially skilful, ensure positive psychological atmosphere and good working conditions in organization. Manager's psychological support is very important in overcoming stress, negative feelings and emotions as well as manager's encouragement, enthusiasm is crucial, too. Therefore, it could be claimed that manager's competence is understood as the management that is based on emotional competence, responsibility, trust, cooperation and communication while setting the goals and explaining them to employees.

1.1 Creating managers' competences

It is highly important for managers to know the ways for the establishment of sustainable relationships in organization. The managers of the company have to pay their attention to organization, society and environment. When managers protect people and nature, they have to reduce organization's negative effects on the environment much as possible. It can be achieved only by successful strategic management. R. Boyatzis and A. McKee (2005) offer practical recommendations to the managers how to create and sustain the relationships in teams and organizations. According to their research attentiveness is perceived as conscious understanding of oneself and others, this concentrated attention could be achieved while using the power of mind, emotions, body and soul. *"Attentiveness is a conscious, considerate, and careful state of mind when one understands oneself and the world that is around him/her."* R. Boyatzis and A. McKee claim that hope and sympathy are the feelings; and the way we go through it is when leaders create sustainable relationships between each other. Hope and sympathy are easily spread around and have a big influence on the actions of the others. *"If we cherish attentiveness and when we feel hope we have to know that there is someone who is taking care of us, who offers her/his support, love and sympathy to us."* Authors that helped to write those texts; and all of that is important in creating sustainability in relationships.

Every manager, who wants to improve his/her management and leadership potential, has to answer a few questions (Boyatzis, 2008). For example: Do I inspire others? Am I able to create a positive emotional tone? Do I feel connection with others? Do I know the ideas and thoughts of employees? Can I feel and generate sympathy? Am I attentive, sincere and do I know what employees need? Only successful managers and leaders can answer yes to every question. They can not only create positive environment, but also sustain it. *"You cannot be a sustainable leader by yourself. It is a product of hard work and a little bit of luck. For that you need to find an aim of your own, follow it every day and be aware of yourself and other peoples' needs, wishes and feelings."* (Boyatzis & McKee, 2005). Drawing on R. Boyatzis (2005) sustainable leadership is closely connected to manager's involvement to solve employee's problems. Therefore, it is very important to emphasize the psychological state of employees and link their emotions to the right direction, encourage and inspire them. It is very important for the manager to be able to make decisions and link feelings to the way that employees could reach goals easier, would do their tasks correctly; and needless to say that all of that depends on the emotional intellect of manager. Moreover, emotionally sophisticated manager can easily create sustainable communication and relationships (Goleman, Boyatzis & McKee, 2013). Under these circumstances employees can feel determination, strength even if they start hesitating.

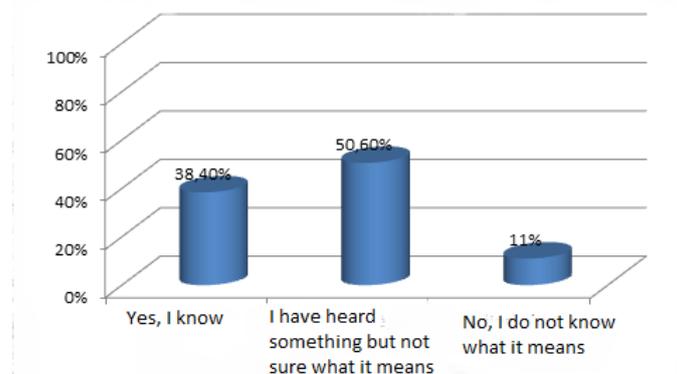
Successful managers can inspire their employees to work creatively, in spite of problems or risk, finding new possibilities how to encourage and motivate his/her employees (Bennis, Nanus, 2003). It is important to know the ways how managers can reach more sustainable relationships with other people and how sustainable leadership affects organization

(Mendenhall, Osland, et al., 2012). What is more, when sustainable leadership is perceived as role model in the organization, employees strive to work better, be more efficient and loyal. Therefore, employees can feel happy about working conditions and desirable results. The most important role in this field plays not only financial possibilities, but also volunteering, environment protection and social issues, too (Ciegis & Grunda, 2007). Sustainable leadership encourages creativity, innovations and concurrencies, lowers expenses, and involves managers to motivate not only employees, but also consumers. That is the reason why organizations that creates new and better services, commodities and processes will always find new ways to compete and win against their bigger competitors. The culture of organization could be distinguishing factor of sustainable leadership and management that are needed in the organization in order to gain economic, social and environmental initiative (Dessler, 2015). Therefore, it is important to pay a lot of attention in creating long-term values, clear communication with employees and partners of organization; explaining clearly values of organization e.g. how the value is created (not only profits). One of the values is the culture of organization that is oriented to its clients, clearly understanding impact on the society and environment (Drucker, 1993). The commitment to the values and culture of organization is the main engine; manager's intellectual and emotional competences which can be easily detected by employees of organization.

1.2 Analysis of the results of the research

The respondents of the survey were people from certain organizations and they had to evaluate their manager's competences, abilities, specific features, and the atmosphere in their organization. 152 respondents were engaged in the research and answered the questionnaire which comprised of 10 open and closed questions. The respondents of the survey were randomly chosen on one condition that they are employed and have jobs (not on social benefit bases). The results of the survey were statistically processed using MS Excel and SPSS programs. Multidimensional methods of the descriptive statistics such as factorial, clustered and correlation were used in the research. While analysing the manager's competences, respondents were firstly asked to answer if they know what the competence is. The results showed that 50,6% of the respondents have heard something about competence, but do not know what it is. 38,4% of the respondents claimed that they know what it is, and 11% answered that they know nothing about what manager's competence (Figure1).

Figure 1: Respondents understanding about manager's competence

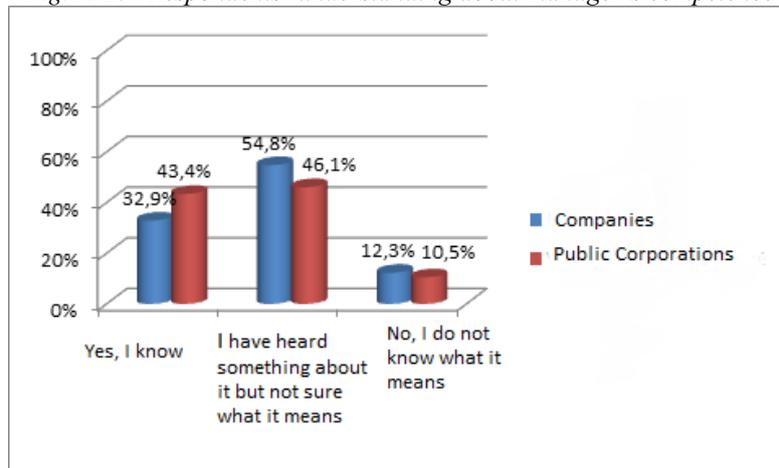


Source: compiled on the basis of authors' calculations

The study shows that employees' understanding about manager's competence has no statistically important differences because the meaning of p was higher than 0,05 ($p=0,754$) in

both – private and public working sectors. Therefore, it could be claimed that employees of private companies and public corporations have the same knowledge of what manager’s competence is. Figure 2 demonstrates that the biggest percent of employees working in private companies (54,8%) and in public corporations (46,1%) agreed that they have heard something about manager’s competence, but do not know the meaning of this concept.

Figure 2: Respondents’ understanding about manager’s competence



Source: compiled on the basis of authors' calculations

In order to analyse respondents’ knowledge about the sustainable leadership they were asked to evaluate (from 5 to 1) which of the given factors influence manager’s competence. The results revealed the fact that the respondents think that the biggest influence has mental well-being and psychological atmosphere (the average of the evaluation is 1,5) in organizations. They also agree that respect to each other is also an important subcomponent of manager’s competence. Moreover, sustainable leadership starts with respect to each other (1,62), direct control of the emotions (1,84), emotional tone of the leader (1,95), constant communication with employees, and understanding of employees (1,96) thoughts and ideas. What is also important that respondents do not think that the direct leader has no influence on creating a sustainable leadership (3,91) and they do not have clear opinions if salary and working hours might have an impact on sustainable leadership (2,7 and 2,59) (Table 1).

Table 1: The Evaluation of factors that determine manager’s competence and sustainable leadership

Factors	Number of Respondents (N)	Average (M)	Comparative Deviation (Sd.)
The psychological wellness of the group and the psychological atmosphere	152	1,5	0,753
Constant communication with the employees, and knowledge of thoughts and ideas of the employees	151	1,96	0,913
Emotional tone of the manager	151	1,95	0,842
Direct control of the emotion of the manager	152	1,84	0,822
The evaluation of the mood of the employee of the direct manager	152	2,31	0,908
Direct manager has no influence on creating a sustainable leadership	152	3,91	1,147
Sustainable leadership starts from the respect to each other	152	1,62	0,760
The salary does have an influence on management style	152	2,7	0,912
Working hours does have an influence on manager’s work	152	2,59	0,941

Source: compiled on the basis of authors' calculations

The features of the manager are one of the most important factors when creating the management style; hence, the employees were asked to define and compare what kind of features in private and public sectors managers have. The results showed that managers of both private companies and public corporations share most of the features and there are not statistical differences between these two sections ($p > 0,05$). Generalizing, it could be claimed that managers of private companies and public corporations does not have influence on sustainable leadership (3, 91). Another aim of the research was to find out what are manager's competences. Firstly, if working in different companies does an influence on manager's competence. It was determined that manager who works in private or public sector share four manager's competences: leadership, strategic thinking, purposefulness and collaboration ($p > 0,05$). There is no difference in which sector manager works in private or public, competence development does not depend on work sector. The results of the survey reveal that there are no statistically important differences between the respondents' evaluations. Therefore, it could be claimed that both managers of the private companies and managers of the public corporations have established similar methods of management. While analysing the data about which of the three management styles is the most common, the results showed that in private companies and in public corporations the most popular is the instructive method of management. The second important is visualization which is also common management style in both sectors. The sustainable management style enjoys popularity, too, but the typical management style is the most popular among managers. Typical management style does not depend on what kind of sector a manager works.

2. Conclusion

The research revealed that the biggest number of the respondents from the private companies (54,8%) and from the public corporations (46,1%) have heard something about the managers competences, but have no clear ideas what they mean. Employees' knowledge about the manager's competences might help to create sustainable relationship between employee and manager. Employees from the public sector accept the fact that development of manager competences such as: collaboration; purposefulness; strategic thinking and leadership help to create better cooperation, respect to each other, control of emotions, emotional tone, psychological climate and sustainability more than those who work in private companies. Both, in private companies and in public corporations managers share the same four strategic competencies: leadership, strategic thinking, purposefulness and collaboration. The competences of the manager do not depend on in what kind of organization s/he works, but it does depend on how big the institution is. The competence of purposefulness is equally significant to all managers of both organizations. Therefore, it could be stated that manager's competences and its components such as strategic thinking, collaboration can be distinguished in micro and macro companies, but rarely in small and middle firms. The study has demonstrated that instructive, visual and sustainable management styles are the most common in private companies and public corporations in Lithuania. Typical management methods which are used by managers in organizations in Lithuania do not depend on in what kind of company they work, but depend on the size of the company. The instructive way of management dominates in any size of companies.

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OPTIMIZATION OF A COMPANY'S CAPITAL STRUCTURE: GLOBAL PROBLEM OF THE CORPORATE FINANCE AND ITS POSSIBLE SOLUTIONS

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Abstract. The influence of a capital structure on the profitability of a company is really significant. A company has to pay for using capital especially in two forms, i.e. in the form of interests (for debts) and dividends (for use of equity). The costs determine the size of profit or loss of the company. That is why all the companies try to minimize the costs paid for using the capital. There are several possibilities to optimize the capital structure. This contribution uses WACC (Weighted Average Cost of Capital). It really focuses on the two parts of capital – debt and equity. We know the price for using debt and equity. However, the rate of equity and rate of debt change according to the size of the company's debt. The general truth is that if debt grows the rate of debt grows and rate of equity also grows. The investors suppose higher profit for higher risk. On the other hand, it is necessary to point out that the relation of the development of debt, rate of debt and rate of equity is not linear. The main objective of the paper is to predict the rate of debt and rate of equity according to the proportion of debt in the case of a specific company. The artificial neural networks are used for setting a regression model, concretely multi-layer perceptron neural networks and radial basis function neural networks. The results are in the shape of two curves. In both cases the independent value is the size of debt. The independent values are rate of debt and rate of equity.

Keywords: capital, costs, liquidity, neural networks, prediction

JEL Classification: C15, G31, G39

1. Introduction

Optimization of a company's capital structure presents a frequently discussed topic related to the financing of company activities which may significantly influence its prosperity and its main business goal (Musa, 2008). Searching for an optimal capital structure has already taken more than 50 years while opinions on this problem still differ. According to Ruckova and Heryan (2015) a number of significant economists have dealt with the question of optimization of capital structure, and many different theories striving to find an answer to exactly that question have been published. We may classify Modigliani and Miller's claim, the classical theory of hierarchical structure and the compromise theory of capital structure among the most important ones.

Zhang & Yang (2015) characterise a company's capital structure as a share of own and foreign capital used by companies to finance their assets. They claim that some companies are financed fully by own capital and thus they do not prove any debt. Other companies are, due to their low capital level, forced to use foreign capital as well. Creating a capital structure, managers face a decision whether to use own or foreign capital. Stryckova (2015) mentions that using foreign resources brings a number of advantages to companies because they get many more investment opportunities. She stresses that using foreign capital is less expensive because to the creditors it presents less risk and the interest paid for its provision is tax deductible. On the other hand, a greater involvement of foreign capital into the company increases its indebtedness. Thus the interest rate increases because a risk growth appears for the bank, as well as for the investors (owners) who ask a higher dividend payment (Lyer & Sagheer, 2012), (Olszak, 2014)..

According to Jaros et al. (2015) the decision-making about capital structure and financing sources heads towards the fulfillment of the main business financing goal, i.e. owners' wealth maximization. For this reason it is necessary, according to Sharma et al. (2010) for the structure of capital used for financing to be optimal. One of the key conditions of capital structure optimization is the effort to decrease the average capital costs value (Donkor and Duffe, 2016). Optimal capital structure may then be, according to Zhang and Yang, characterized as such a structure of long-term company capital at which the working average capital costs (WACC) are minimal.

Block (2011) claims that WACC is, in financial literature, often referred to the trade-off static theory (compromise theory). Further he explains that WACC is possible to be understood as a compromise of a foreign and own capital the sense of which is determining the minimal weighted average cost of capital by combining the optimal ratio of foreign and own capital. According to Musa (2008) minimizing average costs means maximizing market value for the given company. Bluszcz and Kijewska (2016) claim that WACC may be analysed through a U-shaped curve where there is an expression of a capital debt ratio towards total assets on the horizontal axis and the vertical axis expresses weighted average cost of capital. Mirea & Comanescu (2008) claim that in the initial use of debt rate (around the rate of 20% or 30% of total assets) the WACC decreases because as we have already stated, the debt is less expensive than own capital. Nevertheless, debt overuse (60 to 70%) increases the WACC. The optimal point at which the lower debt costs are compensated by higher costs of own capital without significantly raising the company's risk will be found at the range of 40 – 50%. WACC may be, according to Bluszcz and Kijewska (2016), found through the following formula:

$$WACC = k_e * \frac{E}{V} + k_d * \frac{D}{V} = k_e * \frac{E}{V} + r_d * (1 - T) * \frac{D}{V} \quad (1)$$

Where: k_e – own capital costs, k_d – foreign capital costs, E – own capital volume, D – foreign remunerated capital, T – income tax rate, r_d – debt remuneration, V – total capital – company value ($E + D$).

To optimize a company's capital structure a number of other methods and procedures may be used. In today's modern world it is mostly the application of superficial intelligence. It has its undeniable advantages, but it is necessary to count on a whole range of disadvantages.

During the last ten years there has been a significant increase in neural network use (Luzar et al., 2014). Artificial neural networks (ANNs) represent systems working on the base of

special mathematical algorithms derived from neurology branch, characterized by intense arithmetic operations. These networks portray, according to Gundogdu et al. (2016), interesting functions, such as parallelism, classification, optimization, adaptation, generalization, etc. Luzar et al. (2014) defines ANNs as computer softwares that try to imitate the manifestations of human intelligent behaviour. Their ability is mostly learning, memorizing, data generalization, producing new information and detection of relations between variables.

The main advantage of artificial neural networks, unlike of computer programs using classical algorithms, is the possibility of a parallel calculation on several neurons at the same moment (Lu et al., 2013). This system is much faster and it enables the identification of complicated relations between individual input data which are not linear and which are unable to be identified only through a correlational and regression analysis (Kiruthika and Dilsha, 2015). The ability to work with incomplete information and a just attitude towards each assigned task may be considered another huge advantage of artificial neural networks (Echavarri Otero et al., 2014).

Echavarri Otero et al., (2014) see the significant disadvantage of using artificial neural networks in the network's time-consuming preparation in the form of the network's learning as well as a frequently needed statistical adjustment of input data. Otero also claims that probably the greatest disadvantage rests in their easy 'overworking' leading to very negative predictions. That is why it is key to discover the correct moment for stopping the network training. The disadvantage given by statisticians is the fact that parameters obtained by mistake minimization do not have to lead to the global function minimum, but only to its local minimum (Lutsiv, 2015). Process incomprehensibility and ignorance of the clear functional regulation or an algorithm which has generated the given prediction, is another of many objections against the use of neural networks as a prediction tool (Kiruthika & Dilsha, 2015).

The aim of this contribution is to find the optimal structure of capital, i.e. the company's debt rate which would generate the lowest costs on chargeable capital.

2. Methodology

Hydac Company s.r.o.'s data will be used for the calculation (Hydac, 2016): 'In 1993 the Hydromal s.r.o. Company was founded as a representation of HYDAC INTERNATIONAL company in Czechoslovakia. After separating the Czechoslovak state two separate companies appeared in the Czech and Slovak republics. In 1996 the Hydromal company was taken over by the today's parent company and HYDAC Company s.r.o. integrated itself into an international web of subsidiary companies with a complete background of the HYDAC INTERNATIONAL parent company. Hydac Company s.r.o. is a modern dynamically developing company providing its business partners with professional service in the area of fluid element supply, projection, construction, and production of hydraulic, greasing and filtering cooling aggregates, their commissioning, warranty and post-warranty service in almost all countries of the world.' Capital structure and its price divided into costs of own capital, foreign capital and total capital will be described in the introduction of the Application part of this contribution.

To fulfill the aim of this paper the formula for determining the WACC will be key:

$$WACC = r_d * \frac{D}{C} + r_e * \frac{E}{C} \quad (2)$$

Where: WACC – weighted average cost of capital, r_d – costs of foreign capital, D – foreign chargeable capital, C – total capital, r_e – costs of own capital, E – own capital²¹.

Data of the period of 2000 to 2014 will be used to carry out the analysis. Specifically, it will be:

Economic result before taxation in thousands of CZK

1. Profit and Loss Statement: Cost Interest in thousands of CZK,
2. Balance Sheet: Paid Profit-sharing in thousands of CZK,
3. Balance Sheet: Volume of in out own capital in thousands of CZK,
4. Balance Sheet: Foreign Capital (only chargeable) in thousands of CZK,
5. Indebtedness as a proportion of debt and total sources,
6. Interest rate as a proportion of cost interest and chargeable foreign capital,
7. Price of own capital as a proportion of paid profit shares and own capital,
8. Weighted Average Costs on Capital (WACC) expressed according to the formula stated above.

To carry the calculation out, the Statistica version 12 software by DELL company will be used. Specifically, it will be a datamining tool – neural networks. It is a regression for the calculation of which it will be suitable to use the tool of ‘automatized neural networks’. Company indebtedness will be determined as the independent variable, and weighted average costs of capital will be then determined as a dependent variable.

The data will be divided into three groups: Training (70 %), Testing (15 %), Validation (15 %).

The seed for a random selection has been determined on the value of 1000. Downsampling will be done randomly.

To determine a suitable regressive neural structure, multi-layer perceptron networks (‘MLP’) and neural networks using a radial basic function (‘RBF’) will be used. In the case of multi-layer perceptron networks the minimal number of neurons in the hidden layer was 2 and the maximal number was 50. In RBF minimally 4 neurons and maximally 10 neurons will be used in the hidden layer.

The following neural structures will be determined in both hidden and output layer as activating functions: Identity, Logistic function, Hyperbolic Tangens, Exponential Function, Sinus. Other settings will be default.

²¹ A so-called tax-shield is used frequently in formulae, expressed as a differential of index ‘1’ and tax rate. It expresses a situation when the cost on foreign capital use is regarded as a tax deductible cost. Finally, it decreases the price for using foreign capital. In this case tax shield will not be used not to distort the calculation result, and that is due to two reasons:

1. The company operates not only in the Czech Republic. In the opposite case we would have to figure out the weighted arithmetic average of tax rate for all states in which the company runs its business.
2. The purpose of the contribution is to apply the model not only in the Czech environment but also in an international comparison. Tax rates may differ in individual states, the costs on foreign capital use does not even have to be respected as an income tax deductible item.

3. Results and Discussion

Total assets of the Hydac company were CZK 334 million in 2014. The company was financially supported especially through its own capital. Its share on the company financilization during the last years of the observed period was growing at the expense of foreign sources.

During some years the company did not pay profit shares to its owners. In regard of the determined own - capital cost calculation we assume that the company had no such costs. We understand the company indebtedness to figure as an independent variable. The percentage of capital costs is marked on the y axis. The process of WACC is clearly derived from the development of foreign capital costs. Further on it will be suitable to analyse the relation of weighted average capital costs and foreign capital costs in the text.

Basic descriptive staticstics have been carried out on a data file, respectively on an independent variable (indebtedness) and a dependent variable (WACC) for all the three data sets (training, testing and validational). Based on the applied methodics, five best generated neural networks have been preserved. Their list and characteristics are given in Table No. 1.

Table 1: An outline of gained neural networks

In de x	Network Name	Training Output.	Testing Output	Valid. Output	Trainin g. error	Testing Error	Validatio n Error	Training Algorithm	Error Functio n	Activation of hidden layers	Output Act. Function
1	MLP 1- 42-1	0,769608	-1,00	1,00	0,00013 5	0,0000 72	0,000010	BFGS (Quasi- Newton) 1	Sum.qu art.	Tanh	Tanh
2	MLP 1- 25-1	0,771449	-1,00	1,00	0,00012 9	0,0000 80	0,000014	BFGS (Quasi- Newton) 1	Sum.qu art.	Tanh	Identity
3	RBF 1- 10-1	0,427919	1,00	1,00	0,00053 4	0,0002 73	0,000256	RBFT	Sum.qu art.	Gaus	Identity
4	MLP 1- 47-1	0,772233	-1,00	1,00	0,00015 8	0,0000 58	0,000007	BFGS (Quasi- Newton) 1	Sum.qu art.	Logistic	Logistic
5	MLP 1- 40-1	0,771669	-1,00	1,00	0,00012 5	0,0000 84	0,000015	BFGS (Quasi- Newton) 1	Sum.qu art.	Sinus	Identity

Source: Own

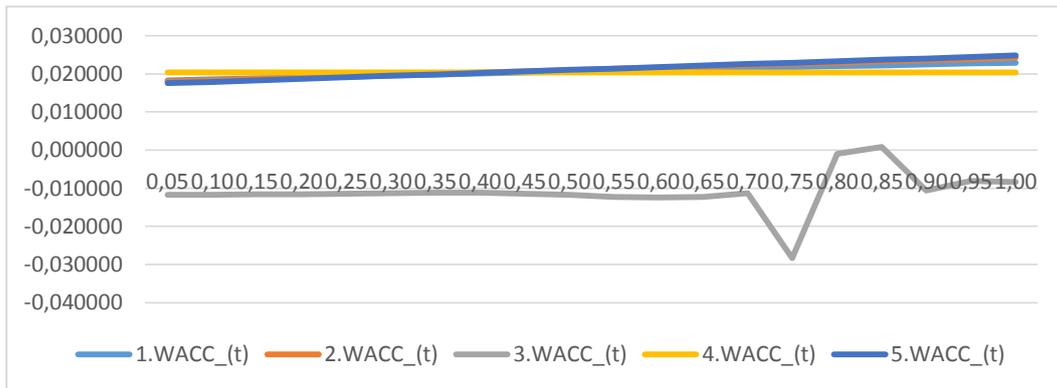
The multi-layer perceptron network with one input, one input neuron, 42 neurons in the hidden layer and one output neuron has been chosen as the best possibility according to the list. BFGS (Quasi-Newton)1 has been used as the training algorithm. Hyperbolic tangens has been used by the activation function of the hidden layer as well as the output layer.

Moreover, three multi-layer perceptron networks and one neural network of the radial basic function were retained. Coefficients between the independent variable and the dependent variable always for each left retained neural network in the training, testing and validational data set were determined. If we ordered individual networks according to their success, we would be choosing the fourth network as the most successful one: MLP 1-47-1. The fifth network, i.e. MLP 1-40-1 and the second one, MLP 1-25-1 follow. The differences between MLP are almost unrecognizable. Only the RBF network keeps distance more significantly.

Sensitivity analysis has been carried out. That brought interesting results. The RBF 1-10-1 seems to be most sensitive. The least sensitive network is MLP 1-47-1.

Now we are reaching the regression results – a specific relation between indebtedness and weighted average capital costs. Further on, the WACC has been mentioned above, with an interval of 5 – 100% always five percent at once. The truth is that indebtedness may exceptionally reach even higher values (over 100%). But the aim of this contribution is not to deal with such extreme situations. Picture No. 2 expresses graphically the process of WACC in dependence on the company indebtedness.

Figure 1: WACC dependent on company's indebtedness according to individual neural networks



Source: Own

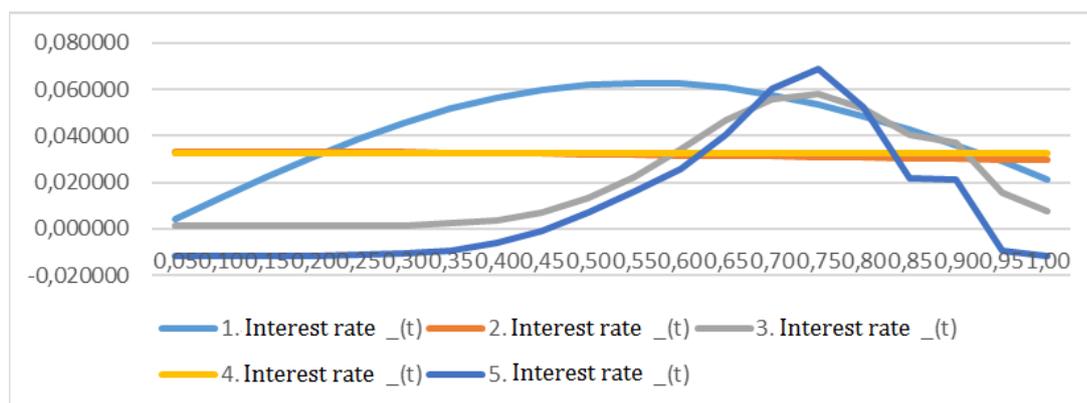
The picture shows clearly that the neural network is useless, with regard to the background data. The costs reach negative values mostly on the RBF process interval. Other networks seem to be useful in reality.

An analysis of foreign capital costs process has been carried out to be compared analogically with the analysis of WACC.

The most successful network is MLP 1-45-1 with a BFGS (Quasi-Newton) 7 training algorithm, with a hyperbolic tangens as an activating function in the output layer. Looking at the individual network characteristics, we will realize that networks retained in foreign capital costs analysis prove higher quality values and the results are thus more valid.

The graphics in Picture No. 3 offers a foreign capital costs process in dependence on the company's indebtedness.

Figure 2: Foreign Costs Process dependent on the company's indebtedness according to individual neural networks



Source: Own

Again, the figure clearly proves that RBF are useless, although their shape is very interesting. Out of MLP networks, the highest-quality ones are picked based on the performance and errors.

4. Conclusion

The aim of this contribution was to find the optimal capital structure, i.e. company indebtedness level, which would generate the lowest costs on chargeable capital.

The aim of the contribution was fulfilled.

Neural networks were used as a tool. 1000 neural structures were generated, out of which the best 5 were retained. Having carried out a detailed analysis of the partial characteristics of each it was clear that the best applicable network into Hydac company, was the MLP 1-42-1 neural network. Subsequently, the whole WACC process was noted according to the obtained function on the indebtedness interval of 0 – 100%.

For a comparison, an analogic analysis was carried out during which the foreign costs process was watched, dependent on the company indebtedness. The results are higher quality in this case. Thus, it is clear that WACC oscillate the own capital costs as well as the General Meeting's decision about the payment, respectively no payment of profit share to the company's partners. The MLP 1-45-1 network was identified as the highest quality network characterizing the foreign capital process.

The WACC analysis proves that the company should be using only its own capital. The foreign capital process analysis shows that the company should be correcting the indebtedness of 0 – 25% interval or 95 – 100% interval. The latter of course seems to be illogical at the first sight. But it is not so. The indebtedness rate reflects also in the owner's willingness to pay profit shares.

Generally, there are two recommendations for the HYDAC company to be summed up:

1. The company should keep its debt at the interval of 0-25%.
2. The company should apply a more conservative 'dividend policy'. Profit shares should not oscillate too much in the individual years.

From the given information it is clear that neural networks appear to be an interesting tool to be used not only in the Czech environment but on the contrary, globally in the world. This is given by company origin (their mothers' seat, their internationalization) and the attitude towards foreign capital. Neural networks are of course able to include also other input factors, also the characteristics of the outer environment (e.g. capital market behaviour). A detailed analysis, however, is not the focus of this contribution.

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SOCIO-ECONOMIC SUSTAINABILITY IN POLAND. SEM ANALYSIS AT REGIONAL LEVEL

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Abstract. Improving conditions for sustainable development has been a major aim of every Polish government since the beginning of transformation process. The role of this factor has been also growing as a result of opening Polish economy in the reality of globalised economy for last three decades. Thus, the aim of the paper is to analyse the level of sustainable development in Poland at regional level. The research was conducted at NUTS 3 level for the years 2010-2013. The analysis was based on the data from Central Statistical Office of Poland. It was assumed that the phenomenon of socio-economic sustainability at regional level should be considered as a multivariate latent variable. As a result, it was measured with application of Structural Equation Modeling (SEM). The proposed model was based on eight observable variables that are often pointed in the literature as measures of socio-economic development and human welfare. Application of SEM model allowed to verify the usefulness of the observable variables for analysis of the phenomenon of sustainable development in Poland at regional level. The conducted research confirmed serious disparities at regional level in the sphere of socio-economic sustainability that must be the subject of special interest and counteractions of Polish government.

Keywords: Structural Equation Modeling (SEM), regional analysis, sustainable development, Poland

JEL Classification: Q01, C38, O18

1. Introduction

Creating good conditions for sustainable development has been declared as a formal objective of every Polish government since the beginning of transformation process. It is especially important from the perspective of regional policy as the last two decades have been a period of quick macroeconomic convergence of Poland to EU developed countries, but in the same time significant divergence at regional level, which in the future can be a significant obstacle to long term growth (Pietrzak et al., 2014). From the short term perspective high degree of regional divergence and socio-economic unsustainability can negatively affect numerous spheres such as labour markets (Müller-Fraczek & Pietrzak, 2011, Pietrzak & Balcerzak, 2016a; Wilk et al. 2013), quality of human capital and life (Balcerzak, 2016a; Balcerzak & Pietrzak, 2016a; Pietrzak & Balcerzak, 2016b), effectiveness of institutions (Balcerzak, 2009; Balcerzak & Pietrzak, 2016b) and fiscal stability of the country (Balcerzake et a., 2016; Balcerzak &

Rogalska, 2016; Mackiewicz-Łyziak, 2015). Additionally, implementation of policies supporting socio-economic sustainability cannot be only treated as internal problem of Polish government, but to some extent it can be considered as a commitment to the EU. The sustainable development is considered as major objective of the EU guidelines given in such documents as Europe 2020 (Balcerzak, 2015) and it is supported by the EU structural funds.

As a result, the problem of monitoring socio-economic sustainability at regional level should be a subject of constant scientific research for Polish economists. In this context, the main aim of the paper is to analyse the level of sustainable development in Poland at regional level in the years 2010-2013. The main determinant of the research period was the availability of the data from Central Statistical Office of Poland at regional level (NUTS 3 level). Additional aim of the research is the verification of the usefulness of the data provided by Central Statistical Office of Poland for analysis of the phenomenon of socio-economic sustainability at regional level. As a result, the empirical analysis is conducted with application of Structural Equation Modeling (SEM).

2. Research methodology

The concept of socio-economic sustainability makes multivariate phenomenon, which to some extent is determined by difficult to measure qualitative factors (Pietrzak & Balcerzak, 2016c, Balcerzak & Pietrzak, 2016c; Balcerzak, 2016b). Thus, it can be considered as a latent variable in the sense of SEM methodology (Loehlin, 1987, Bollen, 1989; Balcerzak & Pietrzak, 2016d, 2016e). SEM modeling is the result of a merger between confirmatory factor analysis and path analysis commonly used in econometrics. The main advantage of SEM models in regard to the objective of the paper is their much higher elasticity than the case of regression models. SEM enables to investigate interrelations between complex latent variables, which cannot be subject to direct measuring and are influenced by many factors (Brown, 2006).

The SEM model includes an external model and an internal model. The external model is used to measure endogenous and exogenous latent variables. It represents the results of the confirmatory factor analysis, which enables to calculate factor loadings for the variables that form the latent variable. It is also called a measurement model, which is given as:

$$\mathbf{y} = \mathbf{C}_y \boldsymbol{\eta} + \boldsymbol{\varepsilon}, \quad (1)$$

$$\mathbf{x} = \mathbf{C}_x \boldsymbol{\xi} + \boldsymbol{\delta}, \quad (2)$$

where: $\mathbf{y}_{p \times 1}$ - the vector of observed endogenous variables, $\mathbf{x}_{q \times 1}$ - the vector of observed exogenous variables, $\mathbf{C}_y, \mathbf{C}_x$ - matrices of factor loadings, $\boldsymbol{\varepsilon}_{p \times 1}, \boldsymbol{\delta}_{q \times 1}$ - vectors of measurement errors.

The internal model consists of equations that describe dependencies between latent variables. It is called a structural model, can be given as:

$$\boldsymbol{\eta} = \mathbf{A} \boldsymbol{\eta} + \mathbf{B} \boldsymbol{\xi} + \boldsymbol{\zeta}, \quad (3)$$

where: $\boldsymbol{\eta}_{m \times 1}$ - vector of endogenous latent variables, $\boldsymbol{\xi}_{k \times 1}$ - vector of exogenous latent variables, $\mathbf{A}_{m \times m}$ - matrix of regression coefficients at endogenous variables, $\mathbf{B}_{m \times k}$ - matrix of coefficients at exogenous variables, $\boldsymbol{\zeta}_{m \times 1}$ - vector of disturbances.

3. Analysis of regional socio-economic sustainability in Poland

In the research it is assumed that socio-economic sustainability is a latent variable. In order to measure it an external model based on SEM methodology was estimated. It is assumed that the internal model is not present here, which means that in this case only confirmatory factor analysis was conducted. The analysis was based on the observable variables presented in table 1. The original selection of the variables was based on the literature review on the determinants of sustainable development (Diaz-Chavez, 2014; Kuder, 2015; Jantoń-Drozdowska & Majewska, 2015; Kopnina, 2016; Richert-Kazmierska, 2015; Turečková, 2015).

Table 1: The set of observable variables influencing sustainable development at the regional level

Variable	Description of the variable	Character of the variable
x_1	GDP per capita in regions	Stimulant
x_2	EU funds of municipalities per 1 inhabitant	Stimulant
x_3	Average monthly gross wages	Stimulant
x_4	Unemployment rate	Dis-stimulant
x_5	Number of registered enterprises in REGON registry per 10 thousand inhabitants	Stimulant
x_6	Investment of enterprises per capita	Stimulant
x_7	Migration balance coefficient for inhabitants in working age	Stimulant
x_8	The number of dwellings per 1000 inhabitants	Stimulant

Source: own work.

In regard to the objective of the article a hypothetical SEM model was proposed. The model enabled to assess the level of socio-economic sustainability at regional level as a latent variable. The variables x_i $\{i=1,2,\dots,8\}$, represented observable variables that influence the latent variable. The parameters of the model were estimated in AMOS v. 16. The estimation of the parameters was done with maximum likelihood method. The results are presented in table 2.

Table 2: Estimated parameters of SEM model based on confirmatory factor analysis

Variable	Parameter	Estimate	Standardized estimate	p-value	Factor Score Weights
x_1	α_1	1,000	0,991	-	0,836
x_2	α_2	0,043	0,214	~0,00	0,016
x_3	α_3	2,536	0,855	~0,00	0,016
x_4	α_4	-0,021	-0,646	~0,00	-0,508
x_5	α_5	1,416	0,781	~0,00	0,016
x_6	α_6	9,561	0,889	~0,00	0,006
x_7	α_7	0,086	0,389	~0,00	0,03
x_8	α_8	0,220	0,743	~0,00	0,082

Source: own estimations based on Central Statistical Office of Poland data.

All the parameters of external model are statistically significant, which means a proper selection of observable variables for socio-economic sustainability at regional level. Standardized estimates can be used for assessing the importance of given variables for the socio-economic sustainability. Based on the results they can be ordered as follow: GDP, investment of enterprises, average wages as the variables with the strongest influence; then the

number of enterprises, the number of dwellings, unemployment rate as the variables with the average influence; and migration balance and EU funds as the variables with the weakest importance. The classification of the variables was proposed arbitrary by the authors.

To assess an adjustment of the model to the input data, the Incremental Fit Index (IFI) and Root Mean Square Error of Approximation (RMSEA) coefficients were applied. The value of the IFI coefficient was equal to 0,862. The value of the RMSEA coefficient was equal to 0,204. In the case of survey data IFI value should be higher than 0,9 and the value of RMSEA coefficient should be lower than 0,1. The estimated values of both coefficients did not fulfil these criteria. However, due to the aggregated socio-economic character of the data used in the research, the obtained values of both coefficients could be still accepted. The adjustment of the model to the input data could be considered as proper. The variable describing the level of sustainable development at the regional level in the years 2004-2013 was assessed basing on the sum of product of values of Factor Score Weights (given in table 2) and the values of given variables.

The assessed values of the latent variable for the year 2010 and 2013 are presented in table 3. Based on the value of the variable regions were ordered starting with the once obtaining the highest value of the indicator for socio-economic sustainability. Then, based on the values of average and standard deviation of the latent variable the regions were grouped to one of four classes:

1. The regions with very high level of latent variable, where: $SEM \geq \overline{SEM} + S(SEM)$
2. The regions with a high level of latent variable, where: $\overline{SEM} \leq SEM < \overline{SEM} + S(SEM)$
3. The regions with an average level of latent variable, where: $\overline{SEM} - S(SEM) \leq SEM < \overline{SEM}$
4. The regions with low level of latent variable, where: $SEM < \overline{SEM} - S(SEM)$

Finally, the regions have been assigned only to first three classes, because there are not any areas that fulfil the criteria given in point 4. This result can be interpreted as a positive one. It means that in Poland there are not any regions that are characterized with extremely low level of value of the measure of sustainable development. However, the analysis still confirms that the highest levels of socio-economic sustainability is present in the major urban centres of western Poland and sub-regions surrounding these centres. These regions were grouped in the first and second class. The third class groups the sub-regions with lower level of the value of socio-economic sustainability. One can find all the sub-regions of eastern Poland in this class, which means that eastern part of Poland is characterized with much lower level of socio-economic sustainability than western part. Due to the growing mobility of main economic factors (especially human capital mobility) the eastern part of the country can suffer additionally from the process of draining the most valuable economic resources. This means that without a proper and effective regional policy, these regions can be doomed to long term deterioration of socio-economic situation. As a result only a targeted policies separate for the two areas of Poland can take into account the differences in terms of their socio-economic sustainability and support economic development of the whole country.

Table 3: The values of the latent variable for socio-economic sustainability at regional level

Sub-region	2010			2013			Sub-region	2010			2013		
	SEM i	Ran k	Clas s	SE M	Ran k	Clas s		SEM i	Ran k	Clas s	SEM i	Ran k	Clas s
c. Warszawa	93	1	1	106	1	4	starogardzki	25	37	3	28	37	2
c. Poznan	62	2	1	72	2	4	szczecinski	25	38	3	28	39	2
legnicko-glogowski	56	3	1	56	5	4	oswiecimski	25	39	3	28	40	2
c. Krakow	49	4	1	58	4	4	ciechanowski	25	40	3	28	38	2
c. Wroclaw	49	5	1	58	3	4	bytomski	24	41	3	27	45	2
tyski	47	6	1	48	9	4	slupski	24	42	3	27	44	2
plocki	46	7	1	53	6	4	koninski	24	43	3	28	41	2
trojmiejski	44	8	1	52	7	4	pilski	24	44	3	27	43	2
katowicki	43	9	1	50	8	4	walbrzyski	23	45	3	26	51	2
c. Lodz	39	10	2	45	11	3	radomski	23	46	3	26	49	2
warszawski zachodni	39	11	2	46	10	3	tarnobrzescski	23	47	3	27	46	2
c. Szczecin	38	12	2	42	14	3	ostrolecki	23	48	3	27	42	2
gliwicki	37	13	2	43	13	3	wloclawski	23	49	3	26	53	2
poznancki	36	14	2	43	12	3	inowroclawski	22	50	3	24	55	2
bydgosko-torunski	34	15	2	37	15	3	swiecki	22	51	3	26	48	2
bielski	31	16	2	36	17	3	gdanski	22	52	3	26	50	2
rybnicki	31	17	2	33	22	2	skierniewicki	22	53	3	26	47	2
sosnowiecki	30	18	2	33	20	3	elblaski	22	54	3	24	57	2
piotrkowski	30	19	2	35	18	3	krakowski	22	55	3	26	52	2
opolski	29	20	2	33	21	3	sandomierski	21	56	3	22	64	2
wroclawski	29	21	3	36	16	3	o-jedrzejow	21	57	3	24	58	2
lubelski	28	22	3	34	19	3	tarnowski	21	58	3	23	61	2
gorzowski	27	23	3	30	33	2	chojnicki	21	59	3	24	54	2
leszczynski	27	24	3	32	23	2	sieradzki	20	59	3	24	54	2
koszalinski	27	25	3	30	34	2	nyski	20	60	3	23	62	2
bialostocki	27	26	3	30	26	2	lomzynski	20	61	3	23	59	2
warszawski wschodni	27	27	3	31	25	2	grudziadzki	20	62	3	24	56	2
czestochowski	26	28	3	30	27	2	suwalski	20	63	3	23	60	2
rzeszowski	26	29	3	32	24	2	nowosadecki	20	64	3	22	65	2
zielonogorski	26	30	3	30	30	2	szczecinecko-pyrzycki	19	65	3	22	68	2
lodzki	26	31	3	30	31	2	elcki	19	66	3	21	69	2
kielecki	26	32	3	29	36	2	krosnienski	19	67	3	22	67	2
olsztynski	25	33	3	30	35	2	bialski	19	68	3	22	66	2
jeleniogorski	25	34	3	30	29	2	pulawski	19	69	3	23	63	2
kaliski	25	35	3	30	28	2	chelmsko-zamojski	18	70	3	20	71	2
siedlecki	25	36	3	30	32	2	nowotarski	18	71	3	20	70	2
							przemyski	17	72	3	19	72	2

Source: own estimations based on Central Statistical Office of Poland data.

4. Conclusion

The article was devoted to the analysis of the level of sustainable development in Poland at regional level in the years 2010-2013. The level of sustainable development was treated here as a latent variable in the sense of SEM methodology. In regard to the aims of the article the application of the model enabled to verify the usefulness of eight socio-economic variables provided by Central Statistical Office of Poland for assessment of sustainability at regional level.

The conducted research confirmed a serious disparities at regional level in the sphere of socio-economic sustainability, as the first two typological groups of regions characterised with the highest level of the indicator for sustainability were dominated by the regions that are the big agglomeration growth centres in western part of the country. The disparities should be the subject of special interest and counteractions of Polish government. Otherwise, they can become long term growth obstacle.

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“CAN THE GLOBALIZATION REDUCE INEQUALITY AMONG THE CENTRAL EUROPEAN COUNTRIES?” (THE CASE OF CZECH REPUBLIC)

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Abstract. Defenders of globalization often argue that, whatever distress it may cause for the rich-world workers, it has been good for poor or less affluent countries. The inequality as measured by the distribution of income between rich and poor countries, has globally narrowed. But within each country, the story is less pleasing. We may use three different arguments to support this conclusion: 1) differentiation among workers. A-skilled workers in rich countries; B-low skilled workers in rich countries; C-high-skilled workers in poor countries; D-low-skilled workers in poor countries. The new slogan originating in the Silicon Valley works with the “gig economy” and appearance of the new workers category- contract workers. 2) growth of crony capitalism (measured by crony capitalism index). The data calculated for the CR don't support the general opinion about egalitarian society. With values 15, 85 % or alternatively 12, 63% the CR would be placed more to the group of countries such as Germany or the USA. 3) social and economic mobility. The authors came to the conclusion that inequality among not only Czech workers but also among the workers from other Central European post-communist countries will never reach the income level corresponding to their counterparts of groups A and B in the developed economies of the EU.

Keywords: Inequality, Gig Economy, Categories of Workers, Crony Capitalism, Automated Systems, Freelance

JEL Classification: F6, D63, J22

1. Globalization and its measurable consequences on societies

Defenders of globalization often argue that, whatever distress it may cause for rich-world workers, it has been good for poor or less affluent countries. The data provided by the World Bank support this opinion. (Though one of the most famous opponent of globalization Joseph E. Stiglitz doesn't agree with these argumentation of neo-liberal economists: “*Big parts of population segments in the highly developed countries don't enjoy increased participation on profits created through the globalization. In the USA the salary of median male fully employed worker cleaned of inflation is in the reality smaller than income bevor 42 years*” (Stiglitz, 2016). The same arguments used Bernie Sanders in *INY Times* (Sanders, 2016).

1.1. Gini-coefficient of inequality

The inequality as measured by the distribution of income between the rich and poor countries has narrowed. But within each country, the story is less pleasing. Globalization in fact resulted

in quicker widening inequality in many poorer countries. The Gini-coefficient is the most commonly used measure of inequality. The coefficient varies between 0, which reflects perfect equality and 1, which indicates perfect inequality. Graphically, the Gini coefficient can be easily represented by the area between the Lorenz curve and the line of equality.

Table 1: Gini coefficient (disposable income, post taxes and transfers), for selected Central European countries and USA, year 2012

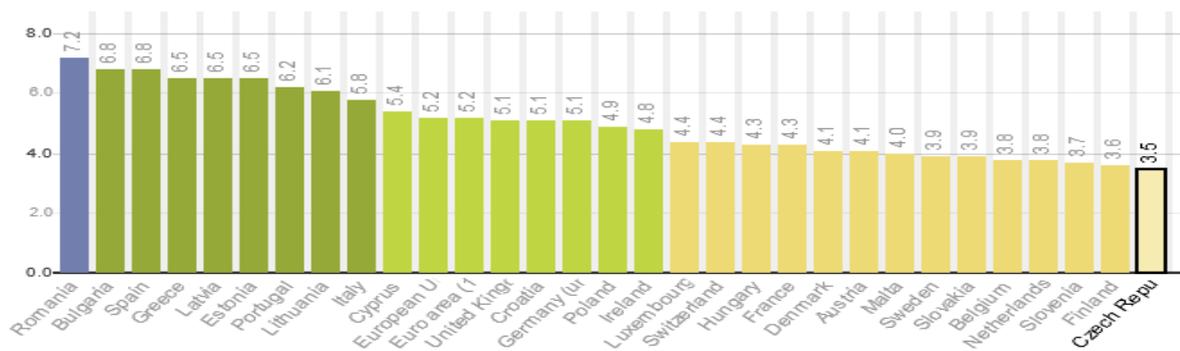
Country	Gini coefficient	Palma ratio
Austria	0,276	0,96
Czech Republic	0,256	0,89
Hungary	0,29	1,03
Poland	0,298	1,08
Slovakia	0,25	0,83
USA	0,389	1,74

Source: OECD

1.2. Eurostat uses different form of coefficient: Income quintile share ratio (S80/S20 ratio)

The Gini coefficient is a measure of the inequality of income distribution. It is calculated as the ratio of total income received by the 20 % of the population with the highest income (the top quintiles) to that received by the 20 % of the population with the lowest income (the bottom quintile). More generally, income ratios can be computed for different ‘quantiles’, a generic term that refers to any specific population proportion. For example, income ratios may be computed on the basis of deciles (1/10 of the population ranked by income), quartiles (one quarter of the population), etc.

Figure 1: Eurostat Income quintile share ratio (S80/S20)



Source: Eurostat

Income inequality in the CR has stayed in the long period 2004-2014 at the same level of 3.5. We can come to the conclusion that if this level is compared with growth rates of GDP and the growth of average salary in CR from 2004-2014 then the inequality has in the reality increased.

Palma Ratio - The Palma ratio is defined as the ratio of the richest 10% of the population's share of gross national income divided by the poorest 40%'s share. It is based on the work of the Chilean economist Gabriel Palma who found that middle class incomes almost always represent about half of gross national income while the other half is split between the richest 10% and poorest 40%, but the share of those two groups varies considerably across countries.

Palma has suggested that distributional politics pertains mainly to the struggle between the rich and poor, and who the middle classes side with. Looking at the situation in pre-election campaigns in the USA and the middle class standing in China and other countries, supports the use of the Palma ratio rather than Gini coefficient showing how much wealth is accumulated by top 1% of country billionaires. (Palma, 2006; Kearney & Levine, 2014)

The professional publications describe two of the major schools of thought on income inequality. The American and Chinese views. The Chinese perceive inequality corresponding to characteristics of high power distance countries. The greatest divide in both income and opportunity is between the rural and urban areas. The Gini coefficient in China has risen to almost 0.7. (Mitchell & Parker, 2016) The American approach says that income inequality is not as important as social and economic mobility. If everyone has the opportunity to make more money and increase their own income and social standing, then your income in relation to others will only be as limited as you let it be, and large gaps are okay because it's the meritocracy that punishes people who don't work as hard. (Kochan & Riordan, 2016)

One of the mainly perceived ways to fix inequality is through the government interventions and legislation. An article in *The Economist* entitled "*Mobility, measured*" (The Economist, 2014), stated the five barriers to social mobility (which are the things to be addressed in order to properly combat inequality) are residential segregation, quality of schooling, family structure, "social capital" (interaction with groups), and inequality (pre-existing income inequality). The conflicting argument is generally the European point of view, which says that regardless of what is put in, income inequality should be addressed. The main tool to combat this kind of inequality is taxation, taking money from those who are richest and giving it to those who are poorest in order to keep income inequality at a minimum level. However, the issue with this is one of incentive. What's the point of getting richer if the government is just going to take more and more of your money? This especially creates an issue when you are free to move your money across the borders, and the richest leave the country for tax reasons and capital leaves your country.

2. Analyzing the situation in the CR we may use three different factors to explain the development of inequality

2.1. The categories of workers

Prof. Eric Maskin of Harvard University (Kremer, Michael, and Eric Maskin. "*Globalization and inequality*." 2006; presented as well at the Lindau Meeting on Economic Sciences, recited from *The Economist*, August 23rd, 2014 p. 64) the problem of "matching". He differentiated workers in four categories. A-skilled workers in rich countries; B-low skilled workers in rich countries; C-high-skilled workers in poor countries; D-low-skilled workers in poor countries.

In the first wave of globalization the workers of the class C and D worked together. But the new wave of globalization based on global connectedness (see: Index of connectedness), has distorted the pairings. The high skilled workers in poor countries work (due to the outsourcing of some part of up-stream industries, i.e. the semi-finished products that account for almost two thirds of the world trade) more easily with low skilled workers in rich countries, thus creating the new segment of society in poor countries The multinationals in developing countries pay higher wages above the norm of the country. The result is higher demand and productivity for skilled poor-country workers (Jansky & Münich 2016). As an example we can take the centers

for shared services in the Czech Republic, located in the two biggest cities- Prague and Brno. There are 15 000 employees in the “shared services centers” in Brno working for more than 40 multinationals, providing services in accounting, logistics and call centers. Even bigger number of employees work for shared services centers or multinational companies in Prague. But work in outsourced production or services managed through big multinational companies is considered as unskilled anyway by rich countries standards. The skilled workers in poor countries therefore cannot “match” with skilled workers in rich countries.

The least skilled workers in poor countries are losing not only access to skilled workers jobs in rich countries but even the access to skilled workers in their own economies (Oyvatt, 2013). It is evident that globalization does not boost the wages for all. And therefore it results in growing income inequality (Blanchard & Willmann, 2016).

But there is a new category of workers emerging – the **contract workers**? The new slogan originating in the Silicon Valley works with the “gig economy”. This is the result of two factors –a) the advance of technology: researchers at the UK ’s Oxford Martin business school estimate that almost half of all US jobs are at risk of being automated in the next two decades, and b) the changing character of work. A couple of years ago it was assumed that a “job” meant working for a company on a fixed schedule. Many workers in the developed world no longer fit in that category. Although they work for a company they have self-employed status and do irregular hours. Their work consists of a series of short-term jobs coordinated through a mobile app. These alternative represents the proportion of high skilled workers who don’t have traditional jobs, who work as independent contractors instead, through temporary services or on-call. So far we can see it in the rich most-developed economies like the US. The number of Americans using these alternate work arrangements rose to 9.4 million from 2005 to 2015. The big question for the next decade is whether the shift to contractor work will make the similar shift in regular employment in developing countries or whether it represents one-time thing. In case of copying the trend of developed countries the authors see the biggest implications for Central European countries on social insurance. Employers in the Central European countries traditionally take the burden of protecting the workers from the things that can go wrong in life.

2.2. The volume of transferred profits of MNC’s from the Czech Republic

The Czech economy is an open economy and hundreds of MNC’s operate either directly or through their branches on the Czech market. Around 400 billion crowns outflows yearly from the Czech Republic (represents approximately **10 % of Czech GDP**). This money could be used in government policies aiming to deal with growing inequality caused due to two other factors described in this contribution.

2.3. The crony capitalism (expressed in crony capitalism index)

Two years ago *The Economist* constructed an index of crony capitalism. The index aims to measure trends in the number of economic rent-seekers. The assumption is that because of the favorable political policies set by the government officials, the tycoons are increasing their wealth and interest. As a result, they get a larger part of worker’s share of national income, instead of generating more wealth for the whole society. Some of the industries that are susceptible to monopoly or require licensing or highly depend on the government have been selected: casinos; coal; defense; deposit-taking banking and investment banking; infrastructure and pipelines; ports; airports; real estate and construction; steel and other metals; utilities and telecoms services. Results can be achieved from the ratio of billionaire’s wealth to GDP in their

own countries. The higher ratio of billionaires' wealth to GDP indicates higher possibility of suffering from crony capitalism (Sorrentino, 2016; Krueger, 2002).

Using the methodology of *The Economist* (The Economist, May 7th-13th, 2016, p. 46) we can calculate the values for the Czech Republic. We will be using two different data: a) taken from *Forbes* rankings for 2015. GDP of the Czech Republic in 2015 = 4 477 billion crowns, the wealth of 40 richest billionaires amounts to 580 billion crowns. The billionaire's wealth as % of GDP 2015:

$$709,7 : 4\,477 = \mathbf{15,85\ \%}.$$

By comparing the result with the ranking calculated in *The Economist* (May 7th, 2016) (In the study is the only one Central European country, Poland, with the result of 2 %) we can state: that impact of crony capitalism in the CR is much higher than in Poland. We can even use alternative measurement by taking the wealth of dollars millionaires (Dollars millionaires are defined as segment of the society, who invested amount of one or more millions USD, not including durable goods of personal consumption. The number of people included in this segment in the CR according to *Forbes* makes 23 200 persons. (Týden CZ, 2016) We can take the current exchange rate:

$$\text{USD/CZK} = 1\text{USD} = 24.2\ \text{CZK}, \quad 23\,200 \times 24,2 = 561\ \text{bill. CZK}$$

$$561 : 4\,477 = 12,53\ \%.$$

Suppose the millionaires group doesn't include the billionaires group of 40 richest. (Forbes, 2015) If we put both groups together and sum up their wealth $709,7 + 561 = 1\,270,7$ billion CZK.

$$1\,270,7 : 4\,477 = 28,38\ \%$$

3. How can we combat inequality in the Czech Republic?

3.1. Attracting FDI into industries with higher added values

By creating incentives for attracting FDI into the Czech economy there is necessity for the Czech government to formulate conditions requiring that at least some parts of investment went to higher value-added branches or to the creation of **centers of excellence**, thus providing bigger options for career and employment for workers of category C. In the Czech Republic the number of university graduates (21, 1% of all employed people) can be considered as formally qualified for the job in group C. (Doležalová, 2015)

3.2. Raising the minimum wage per hour

To enhance the minimum wage is one of the most direct and efficient ways to address inequality. While average workers' wages grow by hardly copying inflation rates, the salaries for those at the top have skyrocketed. But increasing the minimum wage is not just a matter of equity or a means of fighting inequality. It is also the basic condition for improving the economy. As an example of the introduction of minimum wages can be taken the Germany: Since 2015 Germany has a minimum wage of 8.50 €/hour. And still Germany has one of the lowest unemployment rate in the EU integration. The current level in the **CR of 332 EUR** monthly definitely doesn't contribute to the elimination of inequality.

3.3. Strengthen and protect workers

Moreover collective bargaining rights should be amplified to help and to give workers the influence they need, to bargain for better wages and benefits.

3.4. Increase access to high-quality preschool

Children of low-income employees are falling behind before they even step foot into kindergarten and can be months or even years behind children from the same age but from wealthy families. The newest proposals of government (the initiative of government) with obligatory visits of preschool facilities can be considered as the move in the right direction.

3.5. Introduce and practice apprenticeships

Apprenticeships is a form of paid worker training, so you work for a company and simultaneously you attend school. This system will significantly boost workers' lifetime wages and create pathways to well-paying careers for unemployed young workers.

3.6. Offer universal paid family leave

Income inequality directly contributes to the different abilities of parents to care for their children and provide them with the kind of living environment most beneficial to healthy growth, success in school, and success in the workplace. Children who attend high-quality preschools have positive outcomes throughout their lifetime. They are more likely to graduate from the high school, attend college and university.

3.7. Taxation

One of the most disputed tools for fighting the inequality is tax system. Tax and benefit system is one of the typical forms of government intervention. The government could charge the rich a heavier tax burden and transfer the revenue to the poor. It can be used in welfare like health care, education, public schooling, transportation subsidies and poor communities' development (Dušek, Kalíšková & Münich, 2015)

3.8. Crony capitalism

The data calculated for the CR don't support the general opinion about egalitarian society. With values **15, 85 %** or alternatively 12, 63% the CR would be placed more to the group of countries such as Germany or the USA. The Czech government will have to implement measures against cartels, monopolies and other rent-seeking industries which are intensively involved in interaction with state-telecoms, natural resources, construction and defense.

4. Conclusions

The authors came to the conclusion that inequality among not only Czech workers but also among the workers from other Central European post-communist countries **will never reach the income level corresponding to their counterparts of groups A and B** in the developed economies of the EU. The analysis of worker's share on national income in the Czech Republic in the light of three specific factors **has shown the rise of inequality**, regardless of the steady growth of average salary and the growth of GDP. This conclusion is supported by calculated crony-capitalism index figures. As long as the inflow of FDI into the Czech economy will be

directed mainly in industries with the low added value and not in the centres of excellence, the chances of eliminating inequality of workers of **group C is unrealistic**.

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THE STUDY OF THE INFLUENCE OF COLOURS IN MARKETING COMMUNICATIONS: EMPIRICAL AND EXPERIMENTAL FIGURES

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Abstract. The article presents the results of testing a hypothesis about the impact of colour as a part of Visual marketing communication at the point of sale. The Research is based on existing empirical data on the impact of colour on human psychophysiology and consumer behaviour. Experimental data confirmed the hypotheses put forward and the results can be used in the commercial activities of trade and HoReCa. Using Visual elements of communications (colour) it becomes possible to increase average bill and manage consumer choice and encourage to order more expensive food and drinks and the quantity of the dishes. The marketing research was used as the method of experiment. Based on these results of experiment 1 it can be argued that the colour has an impact on the perception of offers by the visitors of restaurants, both men and women. Using the pizza example, it was found that the most attractive colour for the dish image is black. It is this colour that in psychology and marketing is associated with high cost and respectability. Perceived value of the dish shown on the black background compared to the basic price increased. The experimental results of experiment 2 showed the increase in the average bill amount using a black substrate. According to the results of both experiments we were able to determine a special effect of the black colour: under its influence the perceived value of proposals, as well as the average bill amount increases.

Keywords: visual merchandising, marketing communications, the value of commercial offer.

JEL Classification: M30, M31, M37

1. Introduction

Visualization of selling proposition has long and successfully been practiced by merchandizers: using colour solutions, their combinations and practical arrangements in the interior of trade or catering enterprises they create a special atmosphere attractive to the consumer, which is becoming attractive for consumers and, at the same time, profitable for the enterprise.

Using not only visual elements it becomes possible to catch the eye, occupy the attention, evoke feelings, do so that the buyer develop a pleasant feeling of the purchase process, which he would come to shop again for, thereby creating loyal customers and ultimately increasing sales. To do this, they use the visual channel as the main channel of information about the world. It is common knowledge that a person receives most of the information via the eyes.

Therefore, gathering empirical data on primarily the impact of components of colour, studying effects of colour on the behavior of consumers is of particular interest and presents an urgent and prospective direction of marketing communications at points of sale.

Applied techniques of visual merchandising have become ingrained in marketing practices and developed into the science of arranging the items in the window and designing your store or department. The visual merchandising tools include promotional materials, signs, stands, shop equipment, signage and interiors of commercial premises. It is used both in large supermarkets and small shops.

In the practice of commercial activities, the use of visual communication took shape as a separate area of marketing, "visual merchandising". Visual Merchandising (VM) "is characterized by the ability to create sensory, emotional, cognitive (motivation, consistent with their personal beliefs), behavioral values with customers by means of visual stimulants, as opposed to traditional values of functional or cost-based character" (Kiselev et al., 2007).

"Based on these values, the visual merchandizing stimulates the buyers perception of a certain brand image as inherent in their customer's style, the nature of their vitality and converts the process of purchasing goods into a wider social aspect of their activities" (Kiselev et al., 2007). The aim of visual merchandizing is to activate a positive customer's response in a retail enterprise to the visual component of integrated marketing communications in respect of the promoted goods (trade marks, lines, packaging types, the image of the retail enterprise itself and others.).

2. Peculiarities of sensor marketing communications

All that a human can have is the sensory system. Once in the sales area the consumer is still a person who receives the information only through the eyes, ears, nose, tasting, touching goods. There are no other ways to convey any message from the external environment, but to refer to one or more of the above named channel.

Merchandising tools include not only marketing communications aimed at the buyer's sight, but a number of other sensory stimuli, such as aromatic, auditory, gustatory and tactile stimuli (Kiselev et al., 2015). All this helps to make the store or chain of stores more attractive, popular and enjoying customers' trust.

Use of visual communications, in particular colours discussed in this article, also involves the use of other senses. Hence, the authors have specified five communication channels corresponding to the five human senses, aimed at the consumer:

- visual communication channel;
- auditory communication channel;
- aromatic communication channel;
- tactile communication channel;
- gustatory communication channel (Plushcheva, 2008).

A message encoded in a certain way, for example, in colour and colour combination, in the form of a text, its size and also in the specific location, is spread with emphasis on visual perception. The similar principle applies to other sensory communication.

The main thing that distinguishes these types of communications from the traditional ones is the peculiarity of their perception: the customer perceives it and performs an action based on

his/her subconscious, experiences, emotions and feelings. The emphasis is transferred to the experiences of customers (Pain & Gilmore, 2005), which are the result of external stimuli on the senses, the soul, and the mind, it is these sources that generate sensory, emotional, behavioral values and these of correlation, which oppose and replace the functional values of the goods and trade enterprises.

The authors suggest that the effectiveness of marketing communications lies in the full-fledged interaction with the consumer, using multiple sensory channels or all of them. Otherwise, the image of a product cannot be comprehensive and complete, it will be impossible to create a holistic five-dimensional information space surrounding the product and brand. However, the visual channel is the main one, which is reflected in ancient folk wisdom, a Chinese proverb says: "A little picture is worth a thousand words."

There is disaggregated evidence about the influence of visual stimuli, in particular colour. For example:

- the colour is decisive in the recognition of the brand in 80% of cases;
- short-term human memory holds only 1% of what was perceived by touching, 2% of what was perceived by the taste, 5% of what was perceived by sight, 15% of what was perceived by the taste and 35% of what people smelled;
- three months is enough to forget 50% of perceived visual information, while 65% of odours are recognizable a year later (Goncharov & Basov, 2002; Rats, 2014).

Most of the presented and distributed data in available sources of information are not confirmed by the methods of gathering and processing of these data. Peculiarities of the impact of visual sensory stimuli are generally known from the field of psychology. The English psychologist K. Jensen found that a stand or a cabinet, painted in green colour, attracts attention a lot better (Berdov, 2016). Available data on the effect of colour and the experience of its application in trade are summarized in Table. 1.

Table 1: Peculiarities of colour impact and its application in trade

№	Colour	Psychophysiological impact	Peculiarities of influence on consumers	Where it is recommended to be used
1	red	activates bodily functions: faster breathing and heartbeat, muscles getting tense	stimulating buyers and increasing the impulse (unplanned) purchases, stimulating appetite and improving digestion	Cafes and restaurants, shops
2	orange	stimulates energy surge and improves appetite	giving a feeling of looseness and freedom, associated with health, beauty, golden tan and rest	Sports shops, beauty salons
3	yellow	excites, stimulates, but does not hype up; draws attention, causing concentration	catching attention, improving concentration, energizing	Beauty salons, tourist agencies
4	green	tonifies, encourages, warms, increases muscle activity	relieving stress, reducing pain, refreshing the room	Shops offering organic and natural products (food, beauty products, clothes)
5	blue	slows down heart activity, soothes, inhibits the jitters	causing the decline of working capacity and adjusting to relaxation, refreshing and giving a sense of harmony	Swimming pools, bank offices

Source: own work

The table is certain to be updated with the introduction of reliable data on the impact and use of colour in business practices of enterprises. And if the data on the effect of colour on physical and psychological condition are quite sufficient, the availability of accurate data on changes in turnover and/or profits, changes in the value of trade offers and consumers loyalty influenced by the colour would be very useful.

3. Specificity of visual marketing communications

Modern methods of visual communication are based mainly on combination of graphic and text information. The main components forming the brand, the image of a trade mark, trade enterprise on the visual level are the colour, graphic form and font. This article is focused on the colour as the main part of the visual marketing communication.

Colour surrounds us everywhere: the colour and the shape, the colour and the function, the colour and colour relationships - these are some of meanings of colour in everyday life. However, it also has a huge emotional impact: it attracts and repels, excites and provokes thoughts and associations. School physics textbook explains that light is a "photon is both a particle (having a weight) and wave (of a specific length). There are three types of pigments localized on the human retina responsible for colour vision. Each of them absorbs photons of different wavelengths: 400-500, 500-600, 600-700 nano-meters, causing the cells to generate electric impulses" (Nikitina, 2015). By visual nerve fibers before they reach the nerve cells of the cerebral cortex, thus enabling us to see and distinguish colours. However, it is still not known how exactly the human nervous impulses are converted into colour, how the impulse activity having reached the specific neural structures of the brain is converted to subjective sensations of colour, sound, joy, experiences and so on. What is especially important for marketing is the fact that communication message encoded in colour can cause a certain emotion or feeling, forming a programmable response behavior of the buyer.

Depending on the aspect of considering the concept of colour its definition may differ. In order to use colours as a part of marketing communication, we can define it as follows: colour is a property of matter to cause a visual sensation as a result of its directed use to create a managed behavioral and emotional response of the buyer (customer). This definition is necessary for arranging and carrying out the experiments described below.

In order to study the effect of colour on the perception of the value of trade offers a marketing research was conducted. For this purpose "test marketing" form of experiment method was used. Objects of the experiment were visitors of a restaurant, who had already made their orders and were waiting for it.

The hypothesis of the experiment is as follows: the colour page in menu card has an effect/no effect on the perception of the offer value.

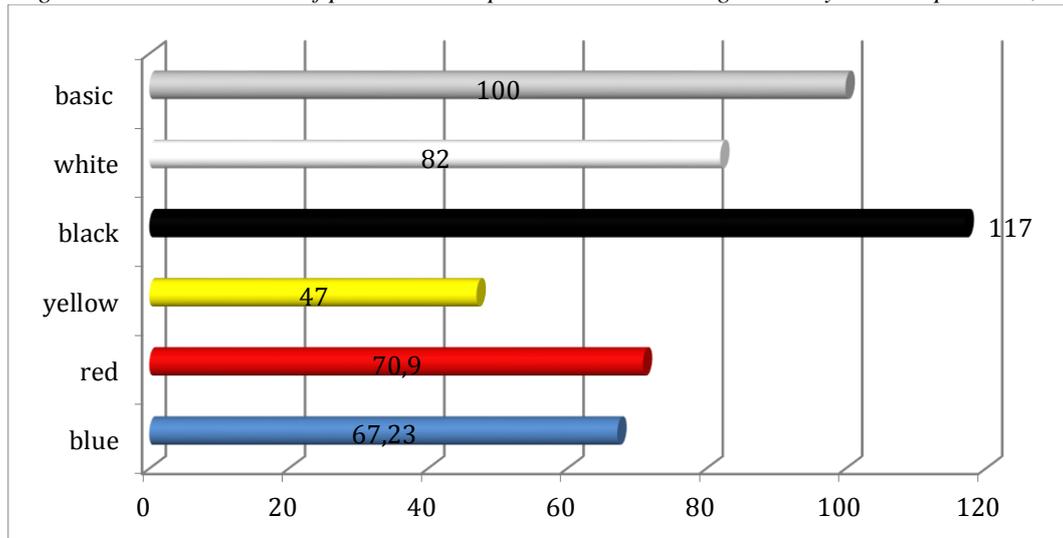
Customers were presented a similar menu page printed in advance with the image of pizza on different colour backgrounds without indication of its price. The main colours chosen included: yellow, red, blue (pure chromatic colour), as well as black and white (achromatic extremes). The image of a dish popular and frequently ordered and in this restaurant (Pizza), its location on the menu page, the font and the text in the experiment menu were in full compliance with the actual menu of the restaurant.

Clients were presented the menu page specifically developed for the experiment and asked to put a price on pizzas shown on the test page.

The experiment was based on continuous sampling. The number of participants amounted to 472 people. The study involved 317 men (73%) and 115 women (27%), which is natural for the venue of the study – a beer restaurant. The experiment lasted for one month.

Evaluation of the experiment results was carried out by comparing the prices designated by the respondents on test pages of the menu with the base actual price of pizza in the restaurant's menu, which was 350 rubles at the study period. Figures 1 and 2 represent the data gender specifically.

Figure 1: Perceived value of pizza on the experiment colour backgrounds by male respondents, %



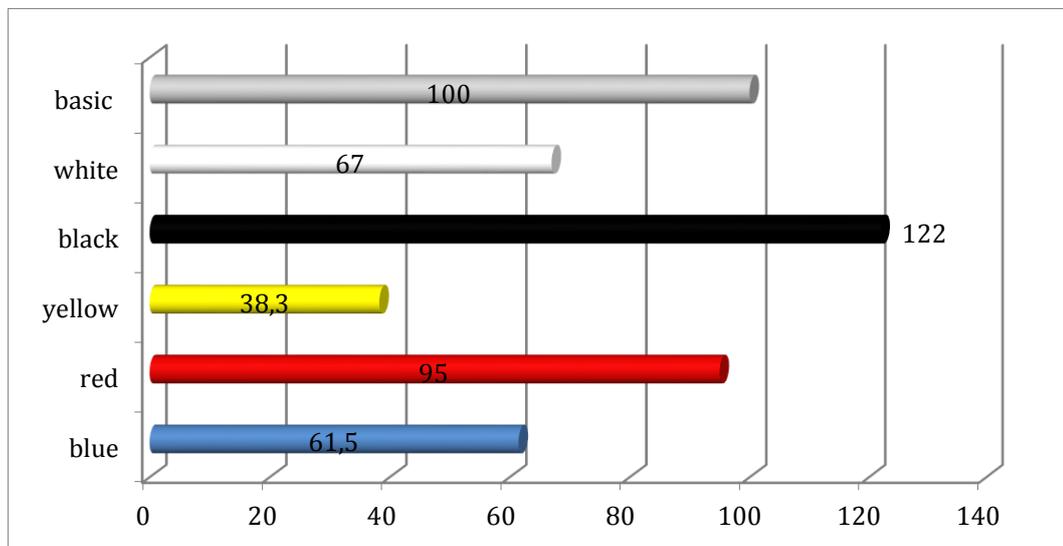
Source: own work

Increase in the perceived value demonstrated that the sample pizza image on the black background produced the average price of this pizza designated by men of 411 rubles. Its perceived value was above the basic one by 17%. Other colours - white, blue, red, yellow, used as a basis for the background of the offer image showed a decrease in perceived value. The yellow colour yielded the greatest decrease – the pizza shown on the yellow background "fell" by 53% (164.5 rubles). Perceived value of the pizzas shown on the blue background was down by 32.8% (235 rubles). On the red background the designated average price was 248 rubles, which is 29.1% lower than the basic price. The pizza on the white background received the average designated price of 285 rubles, which is 18% less than the price set by the restaurant.

Figure 2 demonstrates the results of testing female sample of the respondents for the experiment colours.

The highest value was assigned to the pizza shown on the black background – 430 rubles. Its perceived value is above the basic one by 22%. The black colour as a basis for the dish image turned out to be attractive to women as well. The rest of the colours used in the experiment (white, blue, red and yellow) produced negative result: the perceived offer value on the red background decreased by 5% (average designated price was 332 rubles), on the white background – by 33% (232.5 rubles.), on the blue background – by 38.5% (214 rubles) and on the yellow background – by 61.7% (134 rubles).

Figure 2: Perceived value of pizza on the experiment colour backgrounds by female respondents, %



Source: own work

Based on these results it can be argued that the colour has an impact on the perception of offers by the visitors of restaurants, both men and women. Using the pizza example, it was found that the most attractive colour for the dish image is black. It is this colour that in psychology and marketing is associated with high cost and respectability. Perceived value of the pizza shown on the black background compared to the basic price of the pizza increased by 22% with females by 17% with males. Yellow turned out to be the least attractive colour for the dish image, which is probably associated with "yellow" price tags in the stores. This suggests special offers and discounts. Perceived value of the pizza shown on the yellow background decreased by 61.7% for the female sample and by 53% for the male one in comparison with the actual price of the dish. On the white background the perceived value decreased by 5% with women and by 18% with men, it also dropped on the red background by 38.5% with female sample and by 29.1% with men. The average price for the pizza depicted on the blue background was designated by men and women similarly: the female sampling gave decrease by 33% and the male one by 32.8% compared with the pizza price.

Thus, the aim of the experiment is reached and the hypothesis is confirmed: the colour has an effect on the perceived offer value.

The purpose of this experiment was to study the colour impact on bill amount.

The object of the experiment were visitors of another restaurant, different from the one in the first experiment, but most similar to it in a number of attributes: size, level of prices, average number of visitors per day, location and others.

Hypothesis (main): table mat colour has an effect / no effect of the bill amount.

Field experiment was used the study method.

The table cover mat colour for the experiment day was chosen by random selection. The mat colours were saturated monochromatic colours - red, blue, yellow, and white, black. The study was conducted on weekdays from 12 am until 17 am, which was agreed with the client who ordered the research. Waiters covered the table with mats of a specific colour chosen for the day.

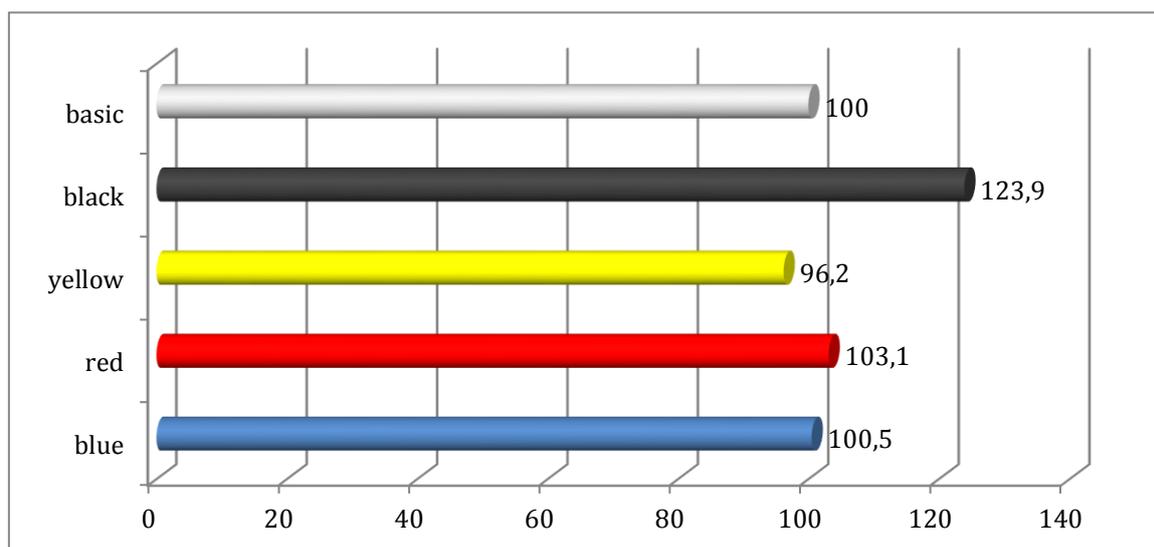
Processing and analysis of the information was carried out based on the analysis of cash receipts and the mat colour for different days. The data were compared with those for other days and with the indicators of cash receipts with regular mats used in that restaurant. Comparison of the results: the control and experience.

The experiment was conducted during the month. The proposed experimental method is based on the generally accepted marketing approaches to influencing customer purchase decisions at the point of sale. This technique enabled to provide the effect of only one variable under study on consumer behavior, excluding the impact of other factors.

Continuous sampling was used.

Increase in the average bill amount under the influence of colour is represented in Figure 3.

Figure 3: Influence of colour on the average amount of bill, %



Source: own work

4. Conclusion

The experimental results showed the increase in the average bill amount using a black substrate by 23.9%. Slight increase in bill amount was obtained with the red colour of the substrate – by 3.1%. Under the influence of the blue there was virtually no change in the average sales receipt – an increase in bill amount by 0.5%. Yellow showed a decrease in the average amount of cash receipts by 3.8%. The hypothesis of the experiment was confirmed: the colour has the effect on the average bill amount.

According to the results of both experiments we were able to determine a special effect of the black colour: under its influence the perceived value of proposals, as well as the average bill amount increases. The yellow colour in both cases had a negative impact both on the perceived value and on the average bill amount. Using the white colour had almost no influence: the perceived offer value fell slightly under its influence, and the average bill amount has not changed in comparison with the baseline. Under the influence of the red and blue colours the perceived offer value decreased and the average bill amount stayed almost unchanged (blue) or gave a slight increase – the average bill increased by 3.1%.

Importantly, the sensory communication costs (in this study, visual) are sufficiently low in comparison with other types of marketing communication and thus are attractive. Recommendations for the use of colour can be taken into account in printing menu cards and table cover mats for restaurants.

The results of the research conducted confirmed the available data on the effect of colour as a marketing communication. It also allows continuing research in this area, and suggests to businesses using the data obtained in practice. Further studies require verification of the data in other fields, as well as a study of integrated influence in combination with other sensory communications. Based on the available data and the planned marketing research the authors suggest developing methodology of using sensory form of marketing communications with the aim of its further extensive application in practice.

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SAFETY OF ELECTRONIC ATC SYSTEMS IN THE ASPECT OF TECHNICAL AND OPERATIONAL

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Abstract. A characteristic feature of railway automation systems is the possibility of their being in various states of exploitation, reliability, diagnostics, etc. (Anderson et al., 2016) Many years of experiences with the operation of rail traffic control systems (ATC) in the world confirm the relationship of the proper functioning and reliability of systems depending on the components forming the structure of the technical systems. Operational tests for ATC devices are the most effective source of information necessary for determining the value of numerical indicators of reliability. These studies allow you to get complete information about the behavior of the system under operational conditions. Are not only the basis for improving the design of technical facilities and improving the production process, but also allow you to obtain reliable information necessary for process control operation, including renewal process, proper organization of service-repair facilities, or the foresight and determination of global costs. Polish railways using more modern ATC systems made based on microprocessor technology and microcomputers will need to analyse and assess its performance, interoperability and forecasting the effects of exploitation, including the renewal process, resulting from the implementation of these systems. Forecasting operational reliability of railway systems consist of determine the values of reliability with regard to working conditions and environmental influences. The aim of the our research is to develop a global system of automatic data acquisition and expert system to apply for the status of devices. This will be achieved through the development of methods for analysing diagnostic data from ATC devices.

Keywords: safety, railway, renewal process, Automatic Train Control

JEL Classification: R41, R42, C38, L63

1. Introduction

Geographical spread of rail traffic control systems makes it puts bigger demands on the local controls in the scope of its control algorithms, information processing and the confidence and speed of data transmission. Therefore, in the 70s of the last century to control the traffic on the railways (devices ATC) began to use electronics. Electronic circuits, in particular digital systems have begun to displace, previously used systems and key relay. Increasing the degree of integration in integrated circuits made it possible to build devices ATC realizing more and

more powerful functions. The emergence of industrial controllers and industrial version of the PC (including the use of real time operating systems) allowed the use of software solutions for the implementation of algorithms for operation of devices ATC. In today's digital systems ATC control algorithms, data processing and storage are mainly implemented in a programmatic way, usually in microprocessor systems, in which the implementation of a given algorithm is carried out in accordance with a program stored in the memory. An alternative to computing solutions might be to return to hardware solutions (electronic), or hardware and software (systems SOI), taking into account the development of technology, application specific integrated circuits. In modern systems, rail automation (ATC) are increasingly used specialized digital circuits. The overall objective of ATC systems is to ensure safety. The method of designing these systems differ from those commonly used methodology for the synthesis of digital systems (Kersbergen et al., 2016), (Kawalec et al., 2016). When designing digital circuits greatest emphasis is placed on minimizing logic functions, describing the system. For systems ATC most important is to determine the mode of operation of the system so determined, the designer should predict how the system will work in every possible situation. Phenomena harmful (occurring in asynchronous digital systems) are difficult to grasp in the target system, because their occurrence depends on the propagation time of the digital signal by the individual elements. Changing the timing of goals due to the aging of the system (redistribution of impurities or ion migration in the metallization layer on a chip), changes in temperature can cause the appearance of phenomena harmful flawlessly functioning system. Therefore, to ensure the safety of digital systems ATC is necessary to detect potential dangers at the stage of system design and implementation. Developed in the Department of Systems Control in Transport Software allows you to clearly determine the suitability of the designed digital system in terms of the elimination of hazards and critical racing. (Pniewski 2013)

2. Digital technology in ATC

Signalling Systems (ATC) have been implemented in a relay technique. Due to the logic of functions, a natural continuation of applied solutions is the use of asynchronous digital machines. (Pniewski 2013); (Kawalec et al., 2001). These systems are not used, despite clear them, which could include:

- There is no system clock to avoid errors related to Diversity clock signal for each (often quite distant modules) called. "Jitter";
- Smaller, about 50% power loss;
- Increased frequency of operation;
- Quick response without waiting for the clock;
- Increased robust;
- Ability to create modular systems;
- The ability to connect multiple systems with their own independent clocks.

The main reason for skipping technology in the design of asynchronous sequential machines are difficult realization related to the presence in these systems of harmful phenomena, causing malfunction:

- Hazards;
- Critical racing.

Due to the lack of interest in asynchronous circuits for many years they were overlooked when creating tools and systems for the computer-aided design. The primary disadvantages of asynchronous systems include:

- No EDA tools to support the design of synchronous machines;
- No methodology for system design;
- Difficulty in verifying projects.

Because of the difficulties related to the synthesis of slots for asynchronous digital systems as such are not yet used in the ATC system, despite the fact that relay systems used for many years in automatic systems were rail (implemented by the logic) asynchronous slot. Another problem raised by system designers ATC, is the lack of relevant certificates for compilers HDL languages. PN-EN50128 provides for the use of certified compiler for the construction of computer automation systems, however, for description languages structures lack of any regulations, it is required only to systems constructed in accordance with standards PN-EN50126 and PN- EN50129, provided for electronic circuits.

In (Kawalec et al., 2001) shows the basic parameters for estimating the reliability of automatic crossing signaling at different ways of its realization:

- Hardware implementation of the standard digital circuits;
- Program implementation on PLCs;
- Hardware implementation in programmable logic structures.

The first two projects are used on railways in Poland, and a third solution using FPGA was developed at the Department of Transport (Warsaw University of Technology).

When comparing the different solutions, the following assumptions:

- Compared systems are performing control functions;
- Will be compared single control channels ATC typical solution used for the two-track line;
- In the sense of reliability adopted for the elements channel serial structure elements of hardware and software;
- For all embodiments are the same environmental conditions;
- All integrated circuits are manufactured according to the same production standards.

Indicator describing the reliability of the intensity of damage λ , describing the function of reliability, according to the following formula:

$$R(t) = e^{-\int_0^t \lambda(t) dt} \quad (1)$$

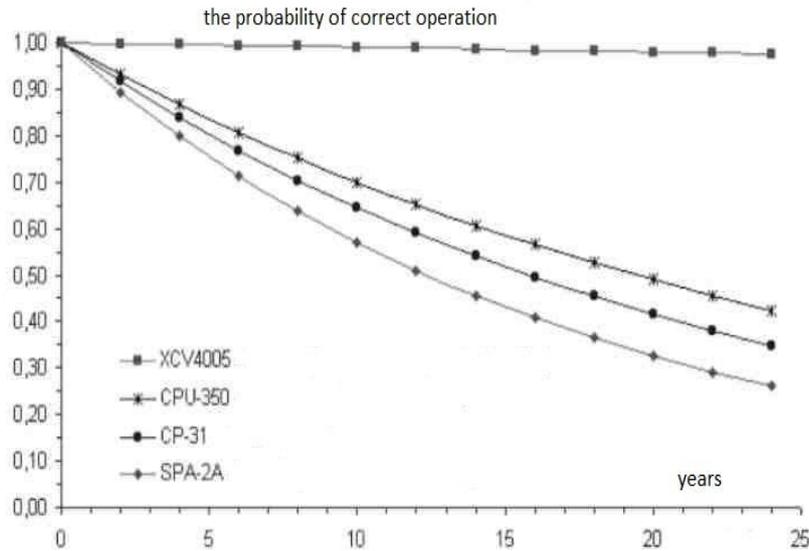
where:

R (t) - function of reliability,

λ (t) - the intensity of damage.

The intensity of the damage determines the likelihood of a failure in the selected time period, the adopted operating conditions. Determination of the intensity of the damage, with the knowledge of the structure of the device enables the assessment of the reliability of its work, the future costs of repairs and the number of spare parts.

Figure 1: The probability of correct operation



Source: own study based on Kawalec et al., 2001

3. Exploitation

A characteristic feature of buildings of railway automation is the possibility of their being in various states of exploitation, reliability, diagnostics, etc. Many years of experience with the operation of rail traffic control systems (ATC) confirm the relationship of the proper functioning of the reliability of systems and components forming the structure of the technical systems. Operational tests are for ATC devices the most effective source of information necessary for determining the value of numerical indicators of reliability. These studies allow you to get complete information about the behavior of the system under operational conditions (use and renewal). Are not only the basis for improving the design of technical facilities and improving the production process, but also allow you to obtain reliable information necessary for process control operation, including rehabilitation, proper organization of service-repair facilities, or the foresight and determination of operating costs. Application for Polish railways more modern ATC systems made based on microprocessor technology and microcomputers will need to analyze and assess its performance, interoperability and forecasting the effects of exploitation, including the renewal process, resulting from the implementation of these systems.

Forecasting operational reliability of ATC systems is to determine the values of reliability with regard to working conditions and environmental influences. (Kuroiwa et al., 2001) This action requires the collection and analysis of information:

- The reliability model of the system;
- Working conditions and environmental conditions;
- Characteristics of reliability applicable elements, components and any software.

The aim of the our department research is to develop a system of automatic data acquisition and expert system to apply for the status of devices. This will be achieved through the development of methods for analyzing diagnostic data from ATC devices. Founded objective of the project will be implemented by:

2. Construction of a new research laboratory traffic control devices (as well as integration with existing laboratories at the Department);

3. The design of the system of automatic data collection device status;
4. Construction equipment reliability model railway automation;
5. Collection and preparation of data concerning equipment ATC;
6. Preparation of simulating typical operating conditions and emergency equipment ATC;
7. Preparing a database to gather information about the devices ATC;
8. Preparation of procedures for determining characteristics.

The expert system will contain basic data relating to processes using ATC systems and their reliability and renewal for six major modules (subsystems ATC):

- General description of the technical characteristics, operational and economic;
- Equipment line block;
- Equipment adjustments;
- Equipment crossings;
- Devices impact-track vehicle;
- Remote control devices.

Results obtained from field tests and kept up to date diagnostic equipment, ATC can be used not only as a basis for improving the design of technical facilities and improving the production process, but also as one of the possibilities to obtain reliable information necessary for process control operation, including rehabilitation, proper organization of service-repair facilities, or the foresight and determination of operating costs. Laboratory ATC a very well equipped laboratory for testing technical and functional systems and railway traffic control devices (currently produced and used on the modernized railway lines), such as:

- Computer system for station equipment : Ebilock 950.
- Position traffic controller with the computer system EbiScreen 2.
- Computer - lock line type SHL-12.
- Computer level crossing SPA-5.
- System axle counters SOL-21 and devices.
- Crossover drive train type EAA-5.
- Railway signaling EHA-22.

Figure 2: Laboratory of Rail Traffic Control Systems



Source: own work

4. Conclusion

Z Ensuring the safety of ATC systems requires global action throughout the "life system", ie.: at the design stage, start-up, implementation and operation of the system. To achieve this goal, you need:

- proper training of staff for the design and operation of ATC systems,
- providing the right tools for the design and verification of electronic systems (allowing for the elimination of human error in the process of implementation and operation)

Ensuring the reliability of synchronous digital systems in the design of electronic systems, the ATC requires the fulfillment of certain conditions. These requirements define the standards:

- EN50126: Railway Applications - The Specification and Demonstration of Reliability, Availability, maintainability and Safety (RAMS).
- EN50128: Railway Applications - Communications, signaling and processing systems
- EN50129: Railway Applications - Communications, signaling and processing systems – Safety related electronic systems for signaling

These standards define the majority of requirements for hardware solutions, software and hardware and software. Equipment used in ATC systems should meet the requirements of EN50126 and EN50129.

In the cited standards are discussed procedure for the design, verification and validation of electronic ATC systems, including digital circuits. There is provided an assessment of the safety system, carried out both by the system designer and an independent expert, assessing the correctness of the project. In this methodology fits well developed in the Department of Control Systems in Transport simulation method of design verification for the detection of errors. The result of the simulation is clear assessment of whether the system can occur hazards and critical racing.

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THE IMPACT OF INTERNALLY GENERATED GOODWILL ON THE FINANCIAL PERFORMANCE OF COMPANIES – INTERNATIONAL COMPARISON

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Abstract. Internally generated goodwill comes from the intangibles not recognized in the financial statements of companies. The internally generated goodwill represents the ability of company achieves higher profit than normal profit, internally generated goodwill represents the source of abnormal future income. The internally generated goodwill comes from the excess of the fair values over the book values of the company's recognized net assets and fair values of the other intangible assets not recognized. But the problem is with the question of its reliability and recognition in accounting of company. This paper examines the causality of internally generated goodwill and financial performance of company. In this paper, the internally generated goodwill is processed according to Ohlson's theory of residual income - internally generated goodwill represents the present value of the expected abnormal earnings. This paper tests the hypothesis that companies with positive internally generated goodwill have better financial performance than companies with negative internally generated goodwill. This hypothesis is tested in Slovak and Czech public traded companies. In addition, is made the comparison of results between Slovak and Czech companies. This paper uses several financial ratios from category of liquidity, profitability, activity and so on for capturing the financial performance of company in selected companies.

Keywords: internally generated goodwill, residual income, financial performance

JEL Classification: G30, G32, C15

1. Introduction

Prestige, reputation, brand, image simply "company's goodwill" as an economic phenomenon has attracted attention of economic experts since the 19th century. Furthermore, the issue of relationship between goodwill and the value of company belong to the most discussed interdisciplinary problems of the modern concept of corporate finance. (Roberts & Dowling, 2002) Internally generated goodwill is the type of goodwill which is not recognized in the financial statements of company and arises from its own activities. (Paliderova et. al., 2015) In general, goodwill comes from intangibles not listed on the financial statements. (Kimbrow & Xu, 2016) But many studies have shown that some intangible investments or activities are relevant for the calculation the value of company. However, the problem is with the question of its reliability and recognition in accounting of company. For example IFRS and

U. S. GAAP do not recognize many intangibles as assets, such as research and development expenditure, human capital, customer loyalty, competitive advantage, advertising and so on. (Bloom, 2008); (Bloom, 2009) IFRS and U. S. GAAP recognize only type of goodwill which arose as a result of business combination it means mergers and acquisition. The internally generated goodwill represents the ability of company achieves higher profit than normal profit (Tumpach & Bastincova, 2014). Internally generated goodwill represents the source of abnormal future income also known as residual income. In this paper we suppose that internally generated goodwill has effect on financial performance of companies. (Kovtun & Zborovskiy) In addition, we predict that companies with positive internally generated goodwill have better results of their financial performance than companies with negative internally generated goodwill. (Zanoni, 2009), (Jarina & Bodorova, 2013)

2. Methodology

Methodology of this paper we can divide into the three basic steps. Elementary information about these steps are given in the next chapter number two.

1. *step* – first of all we had to choose the sample of companies. We chose 10 companies from Slovak Republic and 10 companies from Czech Republic. It was random selection. We chose companies from different regions and from different type of business. But it was there one condition; specifically they had to be public traded companies. This condition was therefore so that we can determine the existence of residual income in these companies. As an input data we used information from their financial statements for 2015 and information about their market value we obtained from the website investing.com.

2. *step* – as we mentioned above our task is determine the possibility that company with residual income or positive internally generated goodwill achieve best result of its financial performance than company with negative internally generated goodwill. (Huselid, 1995) For confirmation this hypothesis we had to choose several financial ratios by which we are able to measure the financial performance of companies. We chose ratios from the categories of liquidity, profitability, activity and so on. Specifically we choose financial ratios which are captures in the following table number 1:

Table 1: Theoretical aspect of selected financial ratios

<i>Financial Ratios</i>	<i>Ratio Calculation</i>
Current Ratio	Current Assets/Current Liabilities
Quick Ratio	(Current Assets - Inventories)/Current Liabilities
Total Debt to Equity	Total Debt/Equity
ROE	Net Income/Equity
ROA	Net Income/Total Assets
ROI	Net Income/Investments
Asset Turnover	Net Sales/Aver. Total Assets for the Year
Receivables Turnover	Net Sales/Aver. Account Receivable for the Year
P/E Ratio	Market Value Per Share/Earnings Per Share
EPS	Net income/Aver. Number of Shares Outstanding

Source: own processing according to Gazdikova and Sustekova, 2009.

This table number 1 captures 10 financial ratios which we will use for the valuation of financial performance of companies. For our further needs, it was important to find out character of these financial ratios. That is, if we want individual ratios to maximize or minimize. For example ratios from the category of profitability are better when their values are rising. *Return on Equity* measures the profitability of company which was created by one euro of

shareholders equity. *Return on Assets* is an indicator of how profitable a company is relative to its total assets. *Return on Investments* is used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. (Narver & Slater, 1990) It means that we want to maximize these ratios. Situation is the same in the case of liquidity ratios. The *Current Ratio* measures a company's ability to pay short-term and long-term debts. The *Quick Ratio* is an indicator of a company's short-term liquidity. The Quick Ratio measures a company's ability to meet its short-term obligations with its most liquid assets. (Lindsey & Weisman, 2016) Total Debt to Equity we want to minimize, vice versa. *Total Debt to Equity* indicates how much debt a company is using to finance its assets relative to the amount of value represented in shareholders' equity. *Asset Turnover* shows how many times the assets are rotated in revenues. Asset Turnover is the ratio which we want to maximize. *Receivables Turnover* is used to measure the amount of days during which company obtains their receivables. In this case we want to minimize this ratio because maturity of receivables should be as short as possible. (Kicova & Kramarova, 2013); (Feltham & Paquette, 1997) The *Price-Earnings Ratio* (P/E Ratio) is the ratio for valuing a company that measures its current share price relative to its per-share earnings. This ratio we want to maximize. *Earnings Per Share* (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. This ratio we want to maximize, too. (Christensen et. al., 2002)

In this second step we calculated these 10 ratios in every of selected companies from Slovak Republic and Czech Republic. Our calculation we made for 2015 based on the information from financial statements of selected companies.

3. *step* – in this last step we had to find out the existence of residual income in selected companies. As we mentioned above internally generated goodwill represents “the ability of a company achieves higher rate of return for its shareholders.” (Feltham, 1988) Internally generated goodwill arises from intangibles items. And this item is not recognized in accounting of company. In this paper we will work with internally generated goodwill which we calculated for the whole company separately from business combinations. We proceeded according to Ohlson's definition from 1995: "Internally generated goodwill represents the present value of the expected residual earnings." (Ohlson, 2009); (Ohlson & Shroff, 1992) This understanding of internally generated goodwill Ohlson used in his model. In his model the market value of company consist of the book value of company plus the present value of expected future abnormal earnings. In addition, the situation may be the opposite and the market value of company is lower than the book value of company. And company did not create residual income. This situation is known as badwill or negative internally generated goodwill. It means that the value of internally generated goodwill can be measured as the difference between the market value of company and the book value of company. This situation is captured in the following equal number 1.

$$MV_t = BV_t + IGG_t \quad (1)$$

Where:

MV_t	market value of company at time t [price per share x number of outstanding shares]
BV_t	book value of company at time t
IGG_t	internally generated goodwill at time t

3. Data and Results

As we mentioned in the previous chapter, our gain is determine and to explore situation in the relationship between financial performance of company and its residual income. Because we suppose that companies with positive internally generated goodwill have better results in the area of their financial health than the companies with negative internally generated goodwill. First of all we provide values and results of selected financial ratios in selected companies for 2015. In the second part of this chapter we show the results of residual income in selected Slovak and Czech companies in 2015. It means that we divided companies into the two groups, specifically the first groups are companies with positive internally generated goodwill which created residual income and the second groups are companies with negative internally generated goodwill which did not create residual income.

3.1 Results of financial performance in selected Slovak and Czech companies

We divided our results into the tables. Every of tables provide results of financial ratios in 5 companies. The first two tables contain results of financial ratios in Slovak companies and the last two tables contain results of financial ratios in Czech companies.

Table 2: Results of selected financial ratios in Slovak companies

Ratios	COMP 1	COMP 2	COMP 3	COMP 4	COMP 5
Quick Ratio	1.89	1.15	0.96	1.02	0.88
Current Ratio	2.09	2.03	1.78	1.02	1.3
Total Debt to Equity	202.14%	121.43%	126.43%	89.13%	13.41%
ROE	2.76%	11.38%	0.51%	-1.95%	2.72%
ROA	1.54%	1.29%	0.04%	-1.20%	1.89%
ROI	1.84%	1.65%	0.03%	-1.50%	2.71%
Asset Turnover	0.21	0.35	0.95	0.06	1.6
Receivable Turnover	36.8	42.5	69.52	13.18	15.43
P/E Ratio	128.8	10.75	9.53	14.45	6.29
EPS	52.13	1.74	125.36	14.35	40.77

Source: own calculation based on the data from investing.com

This second table shows the results in the area of financial performance in Slovak companies 1, 2, 3, 4 and 5. As we can see, good results of financial health achieved companies 1, 2 and 5. These companies have good results in the area of their liquidity. The results of these indicators achieved the recommended values in some cases even exceeded them. These companies have also achieved good results in the area of their profitability. Specifically, in the company 2, 1 € of shareholders equity brought 0.1138 € of net income. These companies achieved also relatively good results in other monitored indicators. But it is important to say that company 1 and 2 achieved a little bit worse results of total debt to equity indicator. These companies these companies were pretty much indebted. Different situation is in companies 3 and 4. These companies did not have good situation of their financial health. For example company 4 did not achieve profit. These companies achieved low values of their liquidity and they were quite indebted.

Table 3: Results of selected financial ratios in Slovak companies

Ratios	COMP 6	COMP 7	COMP 8	COMP 9	COMP 10
Quick Ratio	1.73	0.44	1.01	0.98	0.5
Current Ratio	2.78	0.49	1.45	1.27	0.9
Total Debt to Equity	31.55%	102.16%	28.13%	36.20%	189.33%
ROE	13.26%	-36.98%	89.15%	56.23%	-46.1%
ROA	9.62%	-11.44%	79.24%	48.60%	-11.1%
ROI	11.62%	-71.84%	68.22%	25.77%	-17.89%
Asset Turnover	0.04	1.15	4.3	3.9	0.02
Receivable Turnover	0.37	2.62	10.23	28.35	56.33
P/E Ratio	9.35	0.32	45.00	38.3	12.9
EPS	3.77	-46.25	38.10	12.69	-16.32

Source: own calculation based on the data from investing.com

The third table shows results of selected financial ratios in companies Slovak 6, 7, 8, 9 a 10. Good financial health achieved companies 6, 8 and 9. These companies had good liquidity and achieved profit. For example in company 8, 1 € of shareholders equity brought 0.8915 € of net income. These companies were not too indebted. And maturity of their receivables was quite short and regular. Companies 7 and 10 achieved worse results of their financial performance almost in all selected ratios, vice versa. Neither of these companies made a profit, as evidenced by the results of the indicators of profitability. Company 10 had bad results of its liquidity these indicators did not achieve the recommended values.

Table 4: Results of selected financial ratios in Czech companies

Ratios	COMP 1	COMP 2	COMP 3	COMP 4	COMP 5
Quick Ratio	1.01	1.06	0.98	0.97	2.29
Current Ratio	1.02	1.15	1.05	2.04	3.07
Total Debt to Equity	17.21%	62.30%	15.91%	715.42%	0.00%
ROE	11.24%	12.99%	13.24%	-42.07%	12.78%
ROA	1.52%	5.17%	1.52%	-11.72%	5.16%
ROI	0.23%	6.41%	1.44%	-13.71%	6.11%
Asset Turnover	0.01	0.33	1.56	0.42	0.6
Receivable Turnover	65.28	4.08	98.63	3.73	4.76
P/E Ratio	9.02	11.96	12.27	86.16	16.04
EPS	8.84	38.82	67.55	-0.81	73.90

Source: own calculation based on the data from investing.com

This fourth table shows the results in the area of financial performance in Czech companies 1, 2, 3, 4 and 5. The best financial performance achieved company 5. Its liquidity ratios achieved higher than recommended values and this company achieved profit. The maturity of its receivables was low and also it's indebted. Companies 1 and 2 achieved good results in selected financial ratios. Vice versa Companies 3 and 4 did not achieve good financial performance. Company 4 had higher indebted and did not achieve profit. For example company 4 had the long maturity of its receivables, specifically 86 days and 1 € of its assets brought only 0.0152 € of net income.

Table 5: Results of selected financial ratios in Czech companies

Ratios	COMP 6	COMP 7	COMP 8	COMP 9	COMP 10
Quick Ratio	1.33	0.91	1.43	0.85	0.02
Current Ratio	1.41	1.43	1.49	1.11	0.07
Total Debt to Equity	51.66%	1.48%	1.58%	58.57%	105.87%
ROE	10.43%	-2.51%	29.48%	37.66%	-23.1%
ROA	7.87%	-1.48%	14.15%	16.11%	-12.5%
ROI	9.54%	-2.28%	28.98%	22.20%	-6.5%
Asset Turnover	1.2	1.53	0.91	1.01	96.52
Receivable Turnover	5.8	6.17	9.66	26.86	85.6
P/E Ratio	13.69	6.91	13.77	8.56	9.6
EPS	16.37	38.80	935.88	10.13	58.45

Source: own calculation based on the data from investing.com

Table number 5 provides results of selected financial ratios for Czech companies 6, 7, 8, 9 and 10. Companies 6, 8 and 9 had good financial health. These companies achieved good liquidity, their values achieved higher than recommended values. Their profitability was also good. For example in company 6, 1 € of shareholders equity brought 0.1043 € of net income and in company 9, 1 € of shareholders equity brought 0.3766 €. Company 7 was not indebted. These companies had short time of their asset turnover and their maturity of receivables was also short. Different situation was in companies 7 and 10. These companies had bad liquidity and they did not achieve profit. Company 10 had higher indebted and the long maturity of its receivables.

3.2 Results of internally generated goodwill in selected Slovak and Czech companies

As we mentioned in the previous chapter, our gain is determine and to explore situation in the relationship between financial performance of company and its residual income. Because we suppose that companies with positive internally generated goodwill have better results in the area of their financial health than the companies with negative internally generated goodwill. In this chapter we provide results of residual income created by internally generated goodwill in selected Slovak and Czech companies. As we provided in theoretical part of this paper, this reality we calculated as a different between the market value of company and the booked value of company. We provide our results in following table number 6. Companies are grouped in two categories – positive internally generated goodwill or negative internally generated goodwill.

Table 6: Results of internally generated goodwill in Slovak and Czech companies

Slovak companies		Czech companies	
POS IGG	NEG IGG	POS IGG	NEG IGG
COMP 1	COMP 3	COMP 2	COMP 1
COMP 2	COMP 4	COMP 5	COMP 3
COMP 5	COMP 7	COMP 6	COMP 4
COMP 6	COMP 10	COMP 8	COMP 7
COMP 8		COMP 9	COMP 10
COMP 9			

Source: own processing based on the data from investing.com

This table number 6 shows the results of internally generated goodwill in selected Slovak and Czech companies in 2015. In Slovak companies was following situation - companies 1, 2, 5, 6, 8 and 9 created internally generated goodwill. It means that their market value was higher than their book value. Different situation was in companies 3, 4, 7 and 10. These companies

had their market value was lower than their book value and in this case these companies did not create internally generated goodwill. This was the reason why we placed them into the category with negative internally generated goodwill. In Czech companies was following situation – companies 2, 5, 6, 8 and 9 created internally generated goodwill and they are grouped in the column with positive internally generated goodwill. Companies 1, 3, 4, 7 and 10 did not create internally generated goodwill and they are grouped in the column with negative internally generated goodwill.

4. Conclusion

In conclusion we can say our gain was made an assessment about relationship between financial performance on company and its internally generated goodwill. In addition we tried to find out the impact of internally generated goodwill on the financial performance of selected companies from Slovak and Czech Republic. In general, based our previous calculation, we can state that companies with positive internally generated goodwill achieved better results of their financial performance than companies with negative internally generated goodwill. In our calculation we can see that companies with good financial performance and financial health as a whole created residual income in monitoring year 2015. Interesting is that this situation was the same both in Slovakia and Czech Republic. Based on our calculation we can state that we can accept hypothesis about existence of relationship between internally generated goodwill and financial performance of companies. But we can also say that for this research was used a small sample. For another research we recommend to expand the sample of companies.

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GLOBALIZATION AND REGIONAL DEVELOPMENT IN SLOVAKIA: THE ROLE OF POLICIES

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Abstract. In the paper we focus on the role of policies for regional development by analysing the political economy of limiting (capping) the amount of direct payments per farm in Slovakia. Capping of direct payments would affect about 500 farms if salaries and social security payments are not considered and around 50 farms if salaries and social security payments are considered. Capped farms differ from farms that are not affected by the capping measure. Large farms affected by the measure of capping are politically the most influential ones. For that reason capping was not supported by the Slovak government in the negotiation process and Slovakia opted for redistributive payment which has smaller impact on large farms in Slovakia. Characteristics of the would-be capped farms show that they might be a really effective interest group able to influence the government position of no capping. The would-be capped farms have enough members to utilize economy of scale in lobbying within Slovakia. They would lose significant amount of money from capping. On the other hand, small farms are too dispersed, have high communication and organizing costs and their preferences are not homogenous. From economic point of view it is rational to reduce direct payments to large farms because large farms in Slovakia have fewer employees, lower value added, and lower sales per hectare than smaller farms. Large farms also specialize mostly in cereals or oilseed with very limited animal production and therefore contribute to rural development less than small farms.

Key words: CAP, capping, political economy, Slovakia

JEL Classification: Q18, Q01, G30, G38

1. Introduction

Within the traditional neoclassical economics the government is studied marginally. The main stress is on the competitive markets, and their relationship to efficiency and distribution of income. Government is seen as an omniscient, benevolent dictator. It is a person that solves for market failure and redistributes incomes in order to maximize well-being of citizens. This approach can be traced back to Pigou (1932) who investigated the reasons behind market failure and possible remedies.

Traditional view of politics has been paralleled by theories of public choice (also known as new political economy). Public choice theories are positive. Rather than postulating a benevolent, omniscient government maximizing social welfare they stress preferences of rational self-interested individuals participating in a political process and the role of institutions. Policies result as an outcome of the interaction of individuals in an institutional context of

decisions. Political markets are analysed with the same behaviour theory and group of actors as economic markets. Public choice assumes rational individuals maximizing their individual welfare subject to their budget constraints and voting power. Politicians provide supply of policies and “formulate policies in order to win elections, rather than win elections in order to formulate policies” (Downs, 1957). Demand side of the political market consists of citizens maximizing expected utility. Citizens may organize into common economic interest groups (Olson, 1965).

Traditional explanation in neoclassical economics for government involvement in agriculture stresses special features of agricultural production, which are not present in industry or services. Government is viewed as a person that maximizes social welfare by correcting natural deficiencies of farming. This approach emphasizes disadvantages of farming activity and imposes a benevolent government aiming to correct for them. Agricultural policy improves on allocative efficiency rather than possesses a redistributive undertone.

Within Public Choice literature, there are essentially two predominant approaches to study of politics in general and agricultural politics in particular: pressure group theory and politician-voter interaction model. These theories have a lot in common and in some cases give exactly the same results. There is, however, a distinction between politician-voter interaction and pressure group models in formulation of agents' behaviour and the political mechanism.

Politician voter model (Downs, 1957) stresses activity of politicians. Politicians in the model are self-interested and entrepreneurial which is in a strong opposition to a clearing-house view of politicians adopted by the proponents of the pressure group theory. Pressure group theory (Olson, 1965), on the other hand, focuses on activity of pressure groups, a feature explicitly not considered in models of politician-voter interaction. The primary focus of pressure group is on collective action, lobbying, while the politician-voter interaction model emphasizes the competition among politicians for political support.

Specific application of the political economy approach to the decision-making on the Common Agricultural Policy of the European Union can be found in Pokrivcak et al. (2006), Pokrivcak et al. (2001), Crombez and Swinnen (2011). Various aspects of the political economy of the current CAP reform are analysed in the Political economy of the CAP reform edited by Swinnen (2015).

The transition in Central and Eastern European Countries (CEEC) begun in 1989 and affected also agriculture. After the change of the regime a new agriculture structure based on private ownership started to take shape (Csaki, 1992). Since that time the number of private companies (Joint Stock Company (JSC.), Limited Liability Company (Ltd.)) has been gradually increasing in Slovakia, because this type of legal form is considered to be more effective. (Pokrivčák et al, 2005). During this period agricultural production decreased and in this way adapted to a domestic demand influenced by the lower purchasing power of population and by changes that occurred in the structure of consumption and in consumer behaviour of the population (Michalski, 2015). There are different approaches to transition strategies chosen by the countries (Rozelle, Swinnen, 2009). In Slovakia large farms dominate and support in form of subsidies has different effect on farms economic situation based on the farm size (Naglova, Gurtler, 2016). Large farms are better off compared to small farms. Since 2004 European Common agriculture policy (CAP) is applied in Slovakia which had and still has a significant effect on farms. On the other hand also CEEC are since 2004 affecting the shape of future CAP (Kosior, 2014).

On 24 September 2013, the Council of the EU Ministers of Agriculture and the European Parliament (EP) finally thrashed up the political agreement on the Common Agricultural Policy (CAP) for the period 2014 to 2020. The reformed CAP was the outcome of the lengthy negotiations involving Member States, the Commission, the European Parliament, and different stakeholders including farmers, taxpayers, environmentalists, and others.

This reform was not the first attempt to limit direct payments (capping) to large farms within the CAP. MacSharry reform of 1992 tried to gradually reduce compensatory payments for large farms but the proposal did not pass in the Council. Reduction of 5% for all farms receiving more than €5,000 was implemented in 2005 and it became known as modulation. The Commission within the Health Check in 2008 proposed additional cuts in direct payments for large farms. However, the coalition of countries with large farms opposed it and only small increase in modulation rates was agreed upon from 2009 onwards.

The final trilogue agreement between Commission, European Parliament, and the Council of 24 September 2013 allowed member states to adopt either degressivity of 5% for direct payments above €150,000 after subtracting salaries and social security payments or a redistributive payment with at least 5% of member states' national ceilings. This outcome regarding the capping is far from the original proposal of the European Commission presented on October 12, 2011.

In the original CAP reform, the European Commission proposed progressive reduction and capping of direct payments as follows:

The amount of direct payments to be granted to a farmer under this Regulation in a given calendar year shall be reduced:

- by 20 % for the tranche of more than EUR 150 000 and up to EUR 200 000;
- by 40 % for the tranche of more than EUR 200 000 and up to EUR 250 000;
- by 70 % for the tranche of more than EUR 250 000 and up to EUR 300 000;
- by 100 % for the tranche of more than EUR 300 000.

The amount referred to in the above paragraph shall be calculated by subtracting the salaries effectively paid and declared by the farmer in the previous year, including taxes and social contributions related to employment. (European Commission 2011a).

The original proposal by the Commission was withered away by the political process leading up to the trilogue agreement because of the strong opposition of the countries dominated by large farms, including Slovakia.

In this paper we evaluate the role of policies by focussing on the position of Slovakia on the capping of direct payments (as well as other related aspects of CAP decision making) on the initial proposal of the European Commission. Slovakia is an interesting example because it is dominated by large transformed cooperatives rather than by small family farms that dominate farm structure in most developed countries in Western Europe, USA or Japan. Empirical part is based on the data from Information Letters of the Ministry of Agriculture and Rural Development of Slovakia.

2. Materials and Methods

In this paper we use Becker's version of the pressure group theory as described in his Theory of Competition among Pressure Groups for Political Influence (Becker, 1983). He assumes that political instruments like taxes, subsidies or regulations are used to raise the welfare of more

influential pressure groups. Pressure groups compete with each other by devoting expenditures on political pressure that translates into political influence. Interest groups compete for political influence by spending time, energy and money on the production of political pressure. Political equilibrium in this model depends on the efficiency of each group in producing pressure, the effect of additional pressure on their influence, the number of persons in different groups which affects the control of free-riding and scale economy in the production of pressure. Controlling for the free riding is an important variable affecting the effectiveness of pressure groups. Those pressure groups that effectively control free riding obtain higher subsidies. On the other hand, in the agricultural context, deadweight costs related to agricultural subsidies discourages pressure from farmers because given revenue from taxes reduces the amount of subsidies as income is lost while increased deadweight loss from a tax or price support encourages lobbying by taxpayers. It follows that a well-performing interest group has to have the following conditions to succeed in lobbying:

- it is compact, its members have similar preferences,
- there is low cost of communication among their members and low cost of organizing,
- it is able to put together money, energy, and time,
- can control free riding of its members (everybody contributes to providing pressure)
- it has sufficient number of members to utilize economy of scale,
- there is low deadweight costs caused by the policy of interest to interest group.

3. Results

Impact of Capping on Member States

The application of the Commission proposal on capping of direct payments would have had differing impacts on Member States. 13 out of 27 Member States would have not been affected at all because there are no large farms in those countries. The biggest impact of capping in terms of the share of amounts capped as well as percentage change of income of capped farms would have been felt in Bulgaria, United Kingdom, Greece, Slovakia and Romania. These are the countries with large farms. Eastern part of Germany would have also been strongly affected by capping.

Slovakia joined the EU in 2004 and decided to implement the Single Area Payment Scheme (SAPS). The SAPS is a flat rate area-based payment. The level of direct payments applied in Central and Eastern European Countries (CEECs) was initially set at 25% of the EU-15²² average direct payment level. This level was progressively increased to 100% of the EU-15 level by year 2014. The CEECs had an option to top-up SAPS payment from their national budgets with a Complementary National Direct Payments (CNDP). In Slovakia CNDP were mostly coupled payments while SAPS payments were fully decoupled. Direct payments per hectare of agricultural land (SAPS and CNDP together), however, were still lower in CEECs than in the EU-15 not only due to their progressive phasing-in but also due to the application of the historical principle whereby direct payments per hectare were determined by yields in a reference period. Due to various reasons like inferior technology in CEECs relative to EU-15, lower capital intensity as well as less stable economic environment and institutions, yields in the historical reference period in CEECs were significantly lower than in EU-15 which was then reflected in lower direct payments per hectare in CEECs compared to the EU-15. Currently

²² EU-15: MS already part of the European Union before 2004, also called “Old EU Member States”.

agricultural structures in Slovakia are strongly dominated by corporate farms (joint stock companies, cooperatives and limited liability companies), which are generally quite large (Table). In 2012, they counted for around 14% of all farms but used around 80% of the total utilized agricultural land (UAA).

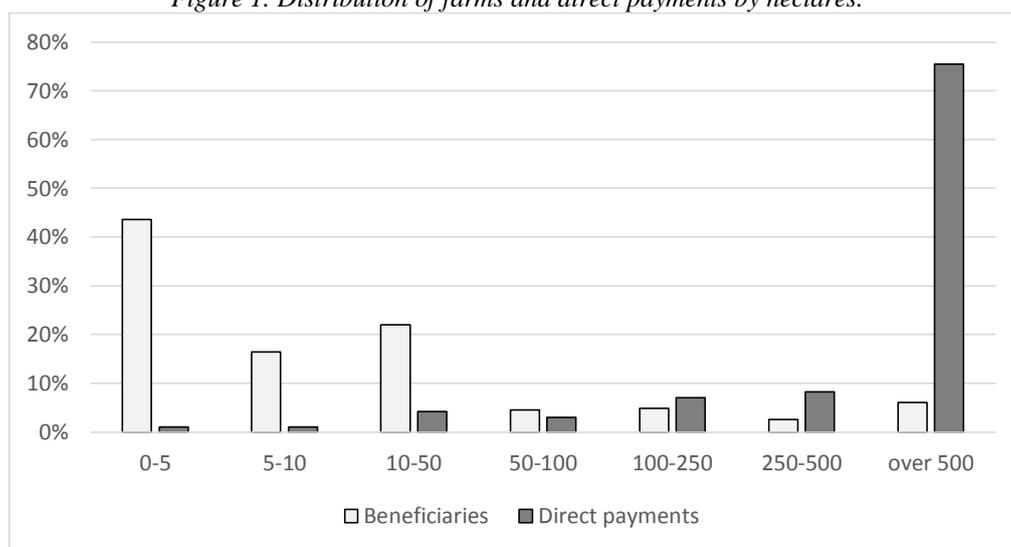
Table 1. Distribution of farms receiving direct payments in Slovakia in 2012

Legal form	UAA per farm (ha)	Share of all farms (%)	Share of total UAA (%)
Cooperatives	1,254	3.5	37.9
Limited liability companies	414	9.7	35.0
Joint-stock companies	1,254	0.7	7.4
Individual farms	64	29.5	16.5
Non-business, individuals	5	55.7	2.5
Others	77	0.9	0.7
Total	115	100.0	100.0

Source: Agricultural Paying Agency in Slovakia, 2013

Figure 1 shows that there are large numbers of small farms that receive small direct payments while few large farms obtain a significant share of total direct payments.

Figure 1. Distribution of farms and direct payments by hectares.



Source: Agricultural Paying Agency in Slovakia, 2013

This situation is the legacy of the policies applied in the past. The structure of agriculture during the communist period was strongly biased towards large cooperative farms, which could be better controlled by the state than many small farms. At the beginning of the 1990s private property rights were restored through the privatization process in CEECs. Farm restructuring accompanied the privatization process but the size of the farms remained very large in Slovakia. Out of the 2,275 corporate farms in Slovakia, capping would have affected 492 farms if salaries and social security payments were not deducted from SAPS (Ministry of Agriculture and Rural Development of Slovakia, Information Letters). If salaries and social security payments were deducted, then out of 1,201 corporate farms in Slovakia for which a complete database on direct payments was at disposal, capping would have affected 41 farms.

There are significant differences between farms that would have been affected by capping in 2012 and those that would have not been affected (Table 2). Farms that would be affected by capping cultivate a much larger area, have higher assets, equity, sales, and profits, but have

fewer employees and make a lower value added as well as lower sales per hectare compared to farms that would not be. Farms potentially affected by capping in Slovakia have large size, small number of owners and specialize mostly in cereals or oilseed with very limited animal production. It would therefore make economic sense to apply degressivity and/or capping for the distribution of direct payments in Slovakia. However, Slovakia was strongly opposed to compulsory capping or strong rates of degressivity.

Given the objectives of the Slovak agricultural policy (MoARD, 2015), which aim for increasing of agricultural production, agricultural employments, increasing of animal production and special plant production (fruits and vegetables) as well as for rural development it would make economic sense to limit direct payments to large farms. Smaller family farms have comparative advantage in labour intensive agricultural activities like animal production and special plant production (Ciaian et al. 2009).

Table 2. Characteristics of farms affected by capping compared to farms not affected in 2012

Number of Farms	Capped		Non-capped	
	41		1,161	
	Mean	Median	Mean	Median
UAA (ha)	2,125	1,873	1,071	804
Number of employees	16.42	10.00	28.29	18.00
Assets (€)	3,528,933	2,885,096	2,579,665	1,372,980
Equity (€)	1,453,282	848,493	1,259,623	524,234
Sales (€)	1,417,387	949,848	1,116,351	568,266
Value Added (€)	15,313	-122,499	276,648	93,406
Profit (€)	192,350	28,110	30,463	8,771
AWU per 100 ha	0.52	0.53	5.23	2.03
Sales per ha (€)	718	659	3024	771
Share of animal production (%)	26.74	3.41	37.07	26.74
Assets per ha (€)	1,854	1,323	6,133	1,619
Investment subsidies in the 4 previous years per assets in %	7.01	0.48	6.72	0.67
Return on equity in %	24.93	14.7	22.53	2.87
Owners per 100 ha	0.11	0.09	6.14	0.75
Number of owners	1.98	1	58.72	3

Source: own calculations based on data from the Information Letters of the MoARD Slovakia (2012).

Note: AWU: Annual Working Units.

Large farms were able to convince the government to oppose capping. There are several reasons for that. Firstly, some of the large farms are really efficient and a reduction of their activity caused by capping would reduce the overall efficiency. However, characteristics of the would-be capped farms show that they might be a really effective interest group able to influence the government position of no capping. The would-be capped farms have sufficient numbers so that they can utilize economy of scale in lobbying within Slovakia. All the large farms (their managers and owners) know each other very well because Slovakia is a relatively small country and they make frequent encounters with each other and with the civil servants at

the Ministry of Agriculture. These large farms would lose significant amount of money from capping which provides a strong incentive for lobbying.

Large size of the farms, their homogeneous positions and low cost of communication and monitoring help to reduce the free riding problem. Furthermore, direct payments create low deadweight costs as they are lump sum transfers. They, however, create deadweight costs in taxation but Slovakia is a net beneficiary of the CAP and direct payments in Slovakia are mainly financed by foreign taxpayers rather than the Slovak taxpayers. All these characteristics make large farms an efficient interest group for lobbying. On the other hand, small farms are greatly dispersed and have high communication and organizing costs. Preferences of small farms are not homogenous because these farms differ in many aspects. The political opposition to the initial proposal of the Commission was “successful” and the final agreement gave more flexibility to member states.

In Slovakia final conclusion reflects the political power of large corporate farms that dominate Slovak agriculture and which also dominated discussions on CAP reform in Slovakia. Although a high number of very small farmers could have benefited from the redistributive payment, they were unable to affect the decision reached by the Ministry of Agriculture and Rural Development.

4. Conclusion

Direct payments are currently an integral part of the Common Agricultural Policy. Since their introduction there were attempts to reduce direct payments to large farms. Many voters consider lower payments to large farms fair as well as support transfer of funds from large farms to the second pillar of the CAP where they are used for rural development and provision of public goods. On the other hand, Member States with dominating large farms strongly oppose capping. This is the case for example in Slovakia, Bulgaria, UK, or Germany. In Slovakia capping would affect around 500 large farms if salaries and social security payments are not considered and about 50 farms with consideration of salaries and social security payments in the computation of reduction of direct payments for farms.

From economic point of view it is rational to reduce direct payments to large farms because large farms in Slovakia have fewer employees, lower value added, and lower sales per hectare than smaller farms. Large farms also specialize mostly in cereals or oilseed with very limited animal production and therefore contribute to rural development less than small farms. It would therefore make economic sense to apply degressivity and/or capping for the distribution of direct payments in Slovakia. However, Slovakia was strongly opposed to compulsory capping or strong rates of degressivity.

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LABOUR MIGRATION IN THE EUROPEAN UNION IN THE CONTEXT OF ECONOMIC DEVELOPMENT OF PAST CENTURIES: THE ANALYSIS OF THE AUSTRIA-HUNGARY

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Abstract. Distinguished German writer and the Nobel Prize winner for the literature, Thomas Mann claimed that “Who does not know the past, will not understand the future”. The study of the history was considered to be the best way of learning the knowledge about the manners of pursuance of people also by the German Historical School. The School was evolved since the 40’s years of 19th century until the first half of the 20th century. Some of its leaders and representatives were, among other activities, involved in the implementation of social reforms, have influenced the development of political science and sociology, as well as have constituted the foundation for the model of social market economy. The goal of the paper is to find the parallels and clarify some aspects of labour migration – possibilities, motives and consequences of migration in relation to economic and political development nowadays and in past centuries. Information is drawn also from less known historical sources. Methodologically, historicological approach and genetic-historic analysis was used. The paper deals with the identification of an important historical events that has affected the migration of human capital, their reflection in the economic development of related countries as well as the searching the analogy in the development between the Austria-Hungary and European Union. The paper concludes with the outlined perspectives in the relation to the goals of the European Employment Strategy.

Keywords: labour migration, the Austria-Hungary, European Union, historical development

JEL Classification: J60, N93, N94

1. Introduction

Historici odhadujú že moderný človek prišiel na území dnešnej Európy a Ázie zhruba pre 60 tisícami rokov, a hoci sa neskôr už nepotreboval sťahovať kvôli pastvinám pre dobytok, aj po usadení sa dochádzalo z rôznych príčin k presunom obyvateľstva. Presuny populácií postupne vytvárali dnešné usporiadanie sveta. S tým sa spájajú pojmy ako *sťahovanie národov*, *migrácia*, *emigrácia* aj *exodus*. Za sťahovanie národov sa považuje predovšetkým obdobie od polovice 4. do 6. storočia nášho letopočtu. Migráciou z ekonomického hľadiska chápeme predovšetkým pohyb pracovnej sily, so zámerom zostať mimo domov iba istý čas - napríklad za účelom získania finančných prostriedkov vďaka lepšie platenej práci, získania kvalitnejšieho vzdelania alebo profesijných skúseností. Za emigráciu je považovaný presun obyvateľstva z krajiny za účelom trvalej zmeny pobytu.

No nielen v histórii sa stretne aj s emigráciou²³ (imigráciou), dokonca exodom – hromadným opúšťaním krajiny. V súčasnosti sme svedkami masovej migrácie do strednej a západnej Európy (emigrácie?) z krajín z tretieho sveta s vojnovými alebo náboženskými nepokojmi, ako sú Sýria, Afganistan, Pákistan, prípadne niektorých Afrických krajín – Lýbia, Súdán. Je ťažké rozlíšiť, či ide o migráciu alebo emigráciu, či je motívom vojnový konflikt, alebo snaha o zlepšenie si životných podmienok. Vďaka prístupu k sociálnymi sieťam cez mobilné telefóny dochádza k rýchlejšiemu presunu informácií medzi ľuďmi vo východiskových regiónoch a migrantoch v cieľových oblastiach. Vytvárajú sa odskúšané migračné trasy, ktoré migrujúci vedú flexibilne prispôbiť zmeneným podmienkam.

V súčasnosti pracuje a žije v cudzej krajine niekoľko sto miliónov ľudí, pričom pracovnú, ekonomickú alebo politickú migráciu býva niekedy ťažké rozlíšiť. Dopady na krajiny, z ktorej ľudia odchádzajú, aj do ktorých prichádzajú sú rôzne. Paradoxne ekonomický rozvoj a narastanie vzdelanosti v zaostalých oblastiach nebýva motiváciou ľudí k zotrvaní v takejto krajine, ale naopak impulzom k tomu, aby si ľudia hľadali lepší život v zahraničí. Podľa Medzinárodnej organizácie pre migráciu (IOM, 2016) je odhadovaný počet medzinárodných migrantov vo svete 244 miliónov, pričom počet ľudí, ktorí odišli do zahraničia sa za posledných päť rokov (do roku 2015) zvýšil o 41 %. Z medzinárodných migrantov v roku 2015 67 % žilo v 20-tíc krajinách, najviac v USA, Nemecku a Ruskej federácii. Okrem toho počet vnútorných migrantov (v rámci svojej krajiny) sa odhaduje na 763 miliónov, čo znamená že v súčte je zhruba každý siedmy človek na svete migrantom.

2. Možnosti, motívy a dôsledky migrácie z historického pohľadu v rámci strednej Európy a Rakúsko -Uhorska

Oblasť strednej a južnej Európy ovplyvňovali úspechy a neúspechy vládcov daného územia aj spoločenské zriadenie. Po rozpade Rímskej ríše, ešte v čase Veľkej Moravy od roku 833 do začiatku 10. storočia sa okrem vojska presúvali aj zajatci – otroci, pretože väčšie množstvo otrokov znamenalo väčšie množstvo pracovnej sily a lepšie podmienky pre rast hospodárstva. Nedostatok vzdelanosti, ktorý sa postupne (ale veľmi pomaly) začal meniť až s príchodom vierozvestcov Cyrila a Metóda v 60-tych rokoch 9. storočia, jazyková bariéra, zložité cestovanie a ekonomicko-politicko-právne zriadenie (feudálni vlastníci pôdy a užívatelia pôdy, tzv. lény systém) komplikovalo slobodu premiestňovania, resp. zmenu sídliska osôb. Do konca 12. storočia vymizlo otroctvo, no bolo so vznikom monopolného vlastníctva pôdy feudálom nahradené nevoľníctvom a poddanstvom, s robotnými povinnosťami²⁴. Koncom v stredoveku aj začiatkom novoveku bol život v celej Európe zložitý, plný vojen, nevoľníckych búrok a morovej nákazy. Ľudia boli pod veľkým vplyvom teologického myslenia a prijímali reálnu situáciu bez kritického myslenia a pochybností. Čiastočnú zmenu priniesol až vplyv humanizmu od konca 15. do začiatku 17. storočia - objavenie Ameriky, rozvoj svetového obchodu a trhového hospodárstva, umenia a vedy. Začala sa vyskytovať kritika authority

²³ V čase tridsaťročnej vojny po bitke na Bílé hoře, ktorá sa konala roku 1620, boli nútení všetci nekatolíci opustiť krajinu – čo vtedy postihlo aj Učiteľa národov Jana Amosa Komenského.

²⁴ Nevoľníctvo - hospodárska aj osobná závislosť od zemepána s nemožnosťou sťahovania sa, sobášov, zmeny remesla alebo štúdia bez povolenia zemepána. V rakúskej časti habsburskej monarchie bolo nevoľníctvo zrušené v roku 1781, v Uhorsku 1785. Zostali však robotné povinnosti, ktoré pokrývali potreby zemepána a jeho dvora a tým boli možnosti migrácie na našom území veľmi obmedzené. Robotné povinnosti boli na našom území zrušené až v roku 1848.

a učenia cirkvi. V strednej Európe sa začali zakladať univerzity²⁵, čo malo za následok rast vzdelanosti, vznikali cechy s výchovou remeselníkov, neskôr manufaktúry s potrebou pracovných síl. V oficiálnom styku bola latinčina nahradená národnými jazykmi, čo zlepšilo situáciu v komunikácii medzi obyvateľstvom, vrátane bohatých a tých, ktorí neboli cirkevnými hodnosťami. Začala sa objavovať emigrácia do novoobjavených krajín. Zrušením nevoľníctva v rokoch 1781 a 1785 už neboli poddaní priamo závislí na svetskej alebo cirkevnej vrchnosti, nepotrebovali súhlas na presťahovanie, sobáš alebo na štúdiá²⁶. Sloboda človeka, sloboda vlastníť a podnikáť umožnila akumuláciu bohatstva a vznik podnikateľov disponujúcich kapitálom, čím boli splnené podmienky pre rozvoj kapitalizmu. Dôsledkom bol rozvoj školstva a rast vzdelanosti, rast podnikateľskej činnosti, ľudia začali migrovať do miest, čo zasa zmenilo štruktúru spotreby obyvateľstva a tým sa podporil rozvoj priemyslu. Postupne sa modernizovalo právo a sekularizovala spoločnosť. Cestovanie, alebo sťahovanie sa však ešte ani polovici 19. storočia nebolo jednoduché. Pre ilustráciu uvádzame príklad evidencie, možností a spôsobu prepravy cestujúcich medzi krajinami Rakúske cisárstvo a Sardínske kráľovstvo z „*Věstníku vlády zemské pro království České, ročník 1857, Oddělení I., částka XXXIX*“, ktorý na strane 517 uverejňuje znenie zmluvy, týkajúcej sa dvojstranného odovzdávania pocestných, vecí, peňazí a tovarov²⁷ medzi týmito krajinami.

„*Úradníci kr. sardínskych železníc budú môcť prijímať pocestných až do Milána. Nakoľko ale správa rakúska v tomto čase po ceste medzi Novarou a Milánom premáva jediným kočiarom pre sedem pocestných zriadeným, zápis pocestných teraz obmedzený bude na jedinej štácii v Janove, v Novi a v Alessandrii, bude umožnené štácii janovskej prijímať denne do Milána troch pocestných; štácia v Novimôže prijať jedného, štácia v Alessandrii tiež jedného; pričom si každá správa vyhradzuje zmeny, ktoré sa ukážu zo skúsenosti ako vhodné.*“

Věstník z roku 1857 upravoval okrem iného napríklad aj:

1. pobyt poddaných rakúskeho cisárstva v Turecku,
2. povinnosť pre čeledínov (paholkov, sluhov) preukazovať sa v kráľovstve Českom preukazom, tzv. „Knižkou čelední“ (Dienstbotenbuch)²⁸,
3. alebo vyhláška o vydávaní hromadných legitimácií pre pútnikov do Mariazellu²⁹.

Už z týchto uvedených výňatkov zo zmlúv a vyhlášok je zrejmé, že pohyby osôb v rámci rakúskej monarchie ani mimo nej nemohli byť chaotické, impulzívne, ale presuny aj pobyty boli registrované. Z Rakúskeho cisárstva sa na rozdiel od prímorských krajín, nestalo koloniálne impérium, nebolo ani strediskom bankového kapitálu, nepatriilo medzi svetových prepravcov a obchodníkov, nachádzajúcich sa na hlavných obchodných trasách. Z tohto dôvodu sa spočiatku tu dala predpokladať predovšetkým vnútorná migrácia. Situácia sa zmenila po 40-tych rokoch 19. storočia, kedy v troch vlnách až zhruba do roku 1890 (Ilek, 2009) prebiehala masová migrácia z Európy do Ameriky, ktorá zasiahla aj rakúsku monarchiu. V roku 1867 vzniklo z rakúskeho cisárstva Rakúsko-Uhorsko (únia dvoch štátnych celkov),

²⁵ Najstaršie univerzity v strednej Európe vznikali v Prahe (1348), v Krakove (1364), vo Viedni (1365), v Pécsi (1367), Nemecku (1386), Chorvátsku (1396). V súčasnej Bratislave vznikla Academia Istropolitana v roku 1465.

²⁶ V roku 1774 bola v habsburské monarchii zavedená povinná školská dochádzka..

²⁷ Zmluva bola uverejnená ríšskom zákonníku v čiastke XXXVII, vydanéj dňa 21. októbra, č. 197, str. 557

²⁸ Ak si v Českom kráľovstve hľadal prácu (službu) človek z krajín, kde sa takéto preukazy nepoužíval, musel mu byť vystavený príslušným politickým úradom, kde práve zdržiavala, na základe cestovných písomností a páni (zamestnávateľa) človeka žiadajúceho o prácu bez takéhoto preukazu nesmeli prijať do služby (pod hrozbou trestu).

²⁹ Poutníci nemuseli mať domovský list (osobitnú pocestnú listinu, legitimačný lístok), postačovalo ak sa zapísali na kolektívny preukaz.

konštitučná dualistická monarchia s mnohými národnosťami, tromi úradnými jazykmi (nemčinou, maďarčinou a latinčinou) a viacerými náboženstvami³⁰. Únia mala spoločného panovníka, ministerstvo zahraničia, vojny a financií. Rakúsko (tzv. Predlitavsko) aj Uhorsko (Zalitavsko) mali vlastný parlament. Rakúsko aj Uhorsko sa vyvíjali trocha odlišným spôsobom, no zotrvalo na starých tradíciách, pričom v Uhorsku na rozdiel od rakúskych krajín zostal zachovaný veľký vplyv šľachty. De facto dochádzalo k nadvláde rakúskych Nemcov a Maďarov nad ostatnými národnosťami. Rakúsko-Uhorsko do tej doby zaostávalo politicky a čiastočne aj ekonomicky, navyše bola aj vysoká negramotnosť. Hospodárska situácia sa čiastočne začala zlepšovať až na prelome 60-tych a 70-tych rokov 19. storočia, pričom k rastu priemyslu a stavbe dopravnej infraštruktúry, rozvoju bankovníctva dochádzalo predovšetkým v Predlitavsku. Napríklad rýchly rozvoj priemyslu v druhej polovici 19. storočia spôsobil, že v českých krajinách mnoho strojárskych závodov začal vyrábať zbrane (Krátký, 2013). V máji 1873 však po Krachu na Viedenskej burze a následnému prasknutiu investičnej bubliny amerických železničných spoločností, došlo k hospodárskej kríze, ktorá znamenala do toho času najväčšiu ekonomickú recesiu sveta. Koncom 19. a začiatkom 20. storočia následne zasiahlo Európu niekoľko ďalších vyst'ahovaleckých vln, začala prevažovať migrácia z krajín južnej, strednej a východnej Európy. Najväčšia časť slovenských vyst'ahovalcov (spočiatku ekonomických, za zárobkom) mala namierené do USA, pričom od 80. rokov 19. storočia nadobudlo slovenské vyst'ahovateľstvo masový charakter. Pribúdali ľudia, ktorí sa v USA chystali usadiť na trvalo.

V Rakúsko-Uhorsku sa politická situácia spojená s národnostnými tlakmi začala koncom 19. storočia vyhrcovať. Aurel C. Popovici navrhol federalizáciu habsburskej monarchie – „Jeho práce sa objavili v čase krízy monarchie a predstavovali návrh na jej riešenie prostredníctvom ústavnej reformy. Popovici navrhol vytvorenie 15 spolkových krajín na čele s cisárom a ústrednej vlády vo Viedni.“ (Hollý, 2012) Bohužiaľ vývoj historických udalostí už neumožnil realizáciu tohto návrhu a v konečnom dôsledku viedol k rozpútaniu prvej svetovej vojny a rozpadu Rakúsko-Uhorska.

2.1. Vývoj migrácie v rámci Rakúsko-Uhorska v 19. storočí, s dôrazom na územie dnešného Slovenska

Motívom migrácie býva väčšinou ekonomická alebo politická situácia, ale faktormi môžu byť aj zmenené životné podmienky v pôvodnej krajine (ekologické, živelné katastrofy), prípadne náboženské konflikty alebo rasizmus. Rozlišujeme migráciu dobrovoľnú, alebo aj vynútená, vnútornú (v rámci krajiny) a vonkajšiu (cezhraničnú). Čo sa týka územia dnešného Slovenska, etnické a náboženské zloženie obyvateľov podstúpilo v priebehu storočí rôzne zmeny, s meniacou sa etnickou štruktúrou, najviac zhruba v období od druhej polovice 19. storočia až do konca druhej svetovej vojna (Majo & Kusendova, 2007).

Medzi možnosťami, ktoré ovplyvňujú migráciu patrí predovšetkým:

- sloboda človeka (aj politická možnosť vycestovať)
- podmienky obživy a usadzovania sa v cieľovej krajine,
- dopravné možnosti,
- znalosť cudzieho jazyka a úroveň vzdelania.

³⁰ Štátnym náboženstvom bolo rímskokatolícke, ale v krajine boli okrem to aj gréckokatolíci, židia, protestanti, pravoslávni a bol vyznávaný aj islam.

Preto aj väčšie presuny obyvateľstva medzi kontinentmi v novodobých dejinách nastali až od 40-tych rokov 19. storočia, spolu s rozvojom priemyslu a železníc (doprava do medzinárodných prístavov zo strednej a východnej Európy, aj doprava do priemyselných centier v rámci USA) a kvalitatívne lepšieho, pravidelného a bezpečnejšieho a rýchlejšieho dopravného - v tom čase námorného - spojenia medzi Európou a USA.

Pozitívnymi dôsledkami pre cieľovú krajinu ako boli USA bol prílev obyvateľstva v produktívnom veku, čo v prípade hospodársky stabilnej krajiny znamenalo potenciál ekonomického rastu, negatívom bol vznik národnostných komunít na malom území, ktorý mohol spôsobovať horšie prispôsobenie sa kultúre a zvyklostiam v danej krajine. Pre domácu krajinu sa hlavné prínosy prejavili až po návrate, vďaka dovozu získaného finančného kapitálu do domácej krajiny, aplikácii nových technológií a inovácií v domácom prostredí, uplatneniu pracovným skúseností a poznatkovo nových výrobných postupoch. Negatívami dôsledkami pre domácu krajinu bol odchod ekonomicky aktívneho obyvateľstva na určitú dobu, riziko zmeny dočasnej migrácie na trvalú emigráciu, a odliv mozgov.

3. Migrácia v súčasnosti v kontexte s vývojom a zámermi Európskej únie s dôrazom na Slovensko

V rámci Európskej únie bol vytvorený strategický dokument Európa 2020, ktorý nie je zameraný iba na riešenie dôsledkov krízy, má odstrániť problémy a nedostatky aktuálnych predpovedí ekonomického rastu v rozličných hospodárskych podmienkach krajín EÚ a vytvoriť vhodné predpoklady pre inteligentný, udržateľný a inkluzívny rast. Súčasťou stratégie Európa 2020 je aj Európska stratégia zamestnanosti, ktorá ale vznikla už v roku 1997. Obsahuje v sebe spoločné ciele EÚ v oblasti politiky a zamestnanosti, s hlavným dôrazom na zvýšenie množstva kvalitných pracovných miest v EÚ. Sekundárnym účinkom zvýšenia zamestnanosti by malo byť zníženie chudoby a sociálnej exklúzie. Na dosiahnutie tohto cieľa musia krajiny EÚ postupovať spoločne a koordinovane, keďže každá krajina má samostatné kompetencie v oblasti politiky zamestnanosti. Na základe návrhov Európskej komisie sa vytvárajú usmernenia a zapracovávajú sa do jednotlivých hospodárskych politík, pričom z 10-tich usmernení sa Európskej stratégii zamestnanosti týkajú 4. Ide o zvyšovanie účasti žien a mužov na trhu práce, znižovanie štrukturálnej nezamestnanosti a podpora kvality pracovných miest; rozvoj kvalifikovanej pracovnej sily, zodpovedajúce j potrebám trhu práce a podpora celoživotného vzdelávania; zlepšovanie kvality a výkonnosti systémov vzdelávania a odbornej prípravy na všetkých úrovniach a zvyšovanie účasti na vysokoškolskom alebo rovnocennom vzdelávaní a podpora sociálneho začlenenia a boj proti chudobe.

Nová sociálna politika je založená na princípe motivácie, aktivácie a odmeny občana. Občan by mal byť motivovaný, aby sa aktívne zapojil do riešenia svojej situácie a pomocou nástrojov novej sociálnej politiky dosiahol želaný výsledok, odmenu vo forme dôchodku, a tak predišiel nezamestnanosti a sociálnemu vylúčeniu. (Pongráczová, 2009) „V dosahovaní inkluzívneho rastu – hospodárstva s vysokou mierou zamestnanosti, ktoré prispieva k hospodárskej, sociálnej a územnej súdržnosti, majú významnú úlohu aj podniky súkromného sektora. .. Čoraz viac firiem si uvedomuje dôležitosť sociálne zodpovedného správania ako dôležitého predpokladu udržateľného a úspešného podnikania“ (Pongrácz et. al., 2015). Európska únia sa snaží podporovať migráciu v rámci krajín EÚ, predovšetkým v oblasti vzdelávania a odbornej prípravy, čo korešponduje s procesom reálnej konvergenencie a snahou o zvyšovanie konkurencieschopnosti EÚ v rámci svetovej ekonomiky.

Samotná EÚ ale čelí problémom aj v súvislosti s vnútornou migráciou, vyplývajúcou z regionálnych disparít v pracovných príležitostiach a životnej úrovni v jednotlivých krajinách v rámci EÚ (z ktorej sa pri vysoko kvalifikovanej pracovnej sile často stáva emigrácia). Naliehavou otázkou na riešenie pre Slovensko (aj pre ďalšie postsocialistické krajiny) je odtok špecialistov do "starých" členských štátov EÚ. Slovensko je tretím najväčším vývozcom svojich študentov v rámci krajín OECD a je potrebné sa orientovať na zachovanie vzdelaných ľudí v ich vlastnej krajine (Přívarová & Přívvara, 2015). Je to ľudský kapitál, ktorého veľkosť zaraďuje jednotlivca na trhu práce do výhodnej či nevýhodnej pozície a predurčuje ho mať väčší alebo menší príjem a väčšiu či menšiu istotu zamestnania a tým aj ďalšie veci, ktoré sú s výškou príjmu a istotou zamestnania spojené (Šipikalová, 2013). Problematika vzdelávania na Slovensku má historický charakter, ale je spojený aj s aktuálnymi ekonomickými a sociálnymi problémami. Uvoľnenie mzdového vývoja na Slovensku viedlo k výraznej príjmovej diferenciacii, ktorá našla svoj odraz v kvalite života obyvateľov. (Gottvald et. al., 2013). Hlavnými faktormi zvyšovania regionálnej polarizácie boli štrukturálne problémy veľkých podnikateľov v regiónoch a nedostatočná infraštruktúra. Chudobní v regiónoch sú sústredení hlavne na dedinách. Rozvoj infraštruktúry, sociálno-ekonomické programy, mobilita a fiškálna decentralizácia sú nástrojmi, ktoré môžu prispieť k znižovaniu rozdielov regiónov (Ošková, 2005). Vytváranie týchto základných podmienok pre znižovanie regionálnych rozdielov v životnej úrovni je samozrejme beh na dlhú trať. Do tej doby zostáva veľkým rizikom, že z dočasnej migrácie do ekonomicky rozvinutých častí Európy a sveta sa bude stávať trvalá emigrácia.

Problematika vnútornej migrácie do „starých“ členských štátov EÚ sa čiastočne vyhrotila v období hospodárskej krízy po roku 2007, keďže nezamestnanosť znamená obrovskú výzvu pre väčšinu krajín Európskej únie. Strata zamestnania vo veľkej miere prispieva k rastu rizika sociálneho vylúčenia a chudoby. (Pongrácz, 2015). Nedostatok pracovných miest a ďalšie ekonomické a sociálne tlaky v súvislosti s presunom väčších skupín obyvateľstva potom vedie k prebúdzaniu xenofóbnych a rasistických postojov nacionalisticky zmýšľajúcich skupín obyvateľstva v tradične príjmovovo bohatších krajinách EÚ (Nemecko, Veľká Británia). Vzhľadom na jazykovú rozmanitosť a politickú situáciu v EÚ, môžeme dnes vidieť určité paralely so situáciou v Rakúsko-Uhorsku na prelome 19. a 20. storočia. Vzrastá obava, že niektoré krajiny majú tendenciu správať sa v rámci spoločenstva dominantne, čo nevyhovuje všetkým členom spoločenstva. V súčasnosti je situácia ešte komplikovanejšia cezhraničnou migráciou z krajín mimo Európskej únie. Masová migrácia do ekonomicky najvyspelejších krajín EÚ spôsobuje vážne ekonomické aj politické komplikácie. Prvým náznakom nezhôd je počínajúci proces vystúpenia Veľkej Británie z EÚ. Žiaľ, nik nevie zaručiť, že Británia bude jedinou krajinou na ceste z EÚ, čo by pre zahraničnú politiku a ďalší vývoj hospodárstva EÚ mohlo mať negatívne a vopred ťažko odhadnuteľné dôsledky.

4. Conclusion

Rozpad Rakúsko-Uhorska znamenal pre Slovensko budovanie vlastného hospodárstva a národa s vlastným štátnym jazykom a významný krok vpred, aj keď to bolo dlhé roky v rámci spoločného štátu s českými krajinami a za rôznych politicko-ekonomických podmienok. Paradoxne rozpad Európskej únie, spoločnej európskej identity a zánik spoločnej meny by mohol spôsobiť vážne hospodárske straty a zníženie dosiahnutej úrovne konkurencieschopnosti. Nakoľko v histórii mali veľké hospodárske a politické zmeny odraz aj v ekonomickej migrácii a emigrácii, môžeme predpokladať, že by sa situácia opakovala, bohužiaľ v neprospech Slovenska.

Každý človek má určité nádeje a očakávania a dosiahnutiu svojich túžob podriadiť svoje konanie. Tomu sa snaží prispôbiť aj podmienky svojho života, niekedy aj za cenu odchodu do iných kútov krajiny, sveta. Šťastie je zo svojej podstaty ťažké merať, empirické štúdie nám vak poskytujú veľmi cenné poznatky o úrovni a determinantoch celkového blahobytu človeka a tiež hladiny šťastia v jednotlivých krajinách. (Muchová, 2015). Ako sme už uviedli medzi motívmi migrácie, sú ekonomické disparity a v niektorých prípadoch dokonca problémy prežitia spúšťačom „hľadania si šťastia inde“. Môžeme konštatovať „bez akýchkoľvek pochyb, nerovnosť vo vnútri jednotlivých krajín a medzi jednotlivými krajinami ovplyvňuje medzinárodnú migráciu a naopak, medzinárodná migrácia vplýva na nerovnosť vo vnútri jednotlivých krajín a taktiež na nerovnosť medzi nimi“ (Přívarová & Toma, 2014). Európska únia stojí v súčasnosti pred veľkými výzvami v súvislosti s migráciou vnútri spoločenstva aj s imigráciou z krajín tretieho sveta. Zúfalých ľudí, hľadajúcich podmienky pre slušný život nezastaví more ani plot.

Ľuďom je potrebné dať prácu, za ktorú budú adekvátne ohodnotení. Nie je riešením vytvoriť pracovné miesta na dobu čerpania eurofondov. Nie každý musí byť absolventom vysokej školy. Je potrebné zvýšiť prestíž v spoločnosti aj pre ľudí, ktorí dobre a kvalitne vykonávajú svoje remeslo a využijú znalosti, zručnosti a skúsenosti staršej generácie. Kult mladých neprispieva k dobrej atmosfére v spoločnosti. Vo výrobe je úspešný taký, ktorý vyrobí lacno a predá veľa, ale aj taký, ktorý vyrába menej, zato kvalitne. Slovensko, ani Európa nemôže v množstve konkurovať lacným výrobkom z tretích krajín. Môžeme konkurovať iba kvalitou. Preto je potrebné sa orientovať na výrobky s dlhodobou tradíciou v regiónoch a na výrobky, ktoré nie sú citlivé na výkyvy ekonomického cyklu. História aj skúsenosti ukazujú, že iba také pracovné miesta vyvolávajú pocit istoty a stability, a za podmienky mieru a sociálneho klľudu nevyvolávajú potrebu dlhodobej migrácie, prípadne trvalej emigrácie.

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E-GOVERNMENT AS A REASON FOR INCREASING DIGITAL LITERACY OF CITIZENS IN THE CURRENT CONCEPT OF GLOBAL E-DEMOCRACY IN THE EUROPEAN UNION

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Abstract. This paper maps, categorizes, and analyses e-Government which can be seen as the way to secure the communication between the citizens and the state through the Internet connection which is available everywhere. This principle simply shapes the transformation of the most government services in electronic form, which is for people easily, quickly and mainly fast and available and for public employees fully automatable. E-inclusion is a part of the process of social inclusion. Its aim is to create a European information society for all, as defined by strategic documents concerning the information society in the European Union. E-Inclusion basically means that no one is deprived of using the opportunities and benefits of the information society because of age, health disability, education, social situation or geographic location. There is necessary to focus on increasing of digital skills of citizens in global context of digitalization of democracy in European Union. The basic parameters of adaptation in nowadays e-democratization is to searching the influence of informational and communicational Technologies for own life. It's necessary to say that, the intensive breakthrough of the informational Technologies into economics in the last two years causes continuous increasing demand for work with suitable level of the digital skills. Researches of EU show that the key adaptational factor is mainly outer, social pressure for passing modern technics. It is also confirmed, that social pressure affects only for some social groups of citizens as it is younger, more educational, qualified, economically better situated urban part of population.

Keywords: E-Government, e-Democracy, digital literacy, e-Inclusion, European Union, education

JEL Classification: I22, I25, I28

1. Global European information society – e-Inclusion

The term e-Inclusion we mean a set of activities designed to eliminate the existing digital divide in society is the difference between those who have access to modern information and

communication technologies, as well as the skills and abilities to use them and those who have access and have the necessary skills (Kováč, 2014). E-Inclusion is part of the process of social inclusion. Its aim is to create a European information society for all (European information society for all), as defined by the European Union in its strategic documents concerning the information society (Eisma et al., 2004). E-Inclusion basically means that no one will be denied the opportunity to use the opportunities and benefits of the information society - whether because of age, health disability, education, social situation, geographic location (geographic disadvantage rural areas), and the like. Highlights of e-Inclusion can include:

- E-Accessibility (e-Accessibility) - make the application of information and communication technology (ICT) accessible to all, including people with "special needs" (i.e. for people disadvantaged),
- E-Competences (e-Competences) - within a lifelong learning system to provide citizens with the knowledge, skills and abilities necessary to increase social inclusion, employment and quality of life (Park, 2011),
- Current e-Inclusion (Geographical e-Inclusion) - using ICT to enhance social and economic situation of people living in rural areas, geographically and economically disadvantaged areas (<https://ec.europa.eu/digital-agenda/>),
- Inclusive eGovernment (Inclusive eGovernment) - to provide better, more accessible and diverse government services to all in order to increase the use of ICT and participation of citizens in the democratic processes (<http://portal.egov.sk>).

Education as such brings development of organization in the form of increasing labour force quality, coping with know-how and overall general awareness level on all levels of management or production and service provision of each organization. The need to educate workers meant development of branches dealing with this activity and introduction of standard forms of trainings, courses, seminars for the purpose of education (Nichols, 2003). Electronic education brought new possibilities how to operatively respond to changes requiring re-training of employees and to inform about that all competent persons and train them and test them relevantly (Bayne, 2004). Organizing a training in a standard form and in suitable time for a bigger group of people, coordinating them and keeping them in educational pace in given time besides rush of their working duties is often very difficult and not simple. It is e-learning that allows introducing individual approach to education and simplifying organization of education. Thus, a worker can be educated in a time that suits him/her the best, in his/her tempo and in comfort or environment that means better concentration and faster learning of the curriculum. However, e-learning systems do not have to be the key educational tool if standard form is proven and successful (Dostál, 2008). Thus, electronic education can be an additional tool or a training archive for those who want to get back to the curriculum to repeat it. In such cases of combined education the e-learning system is used for final testing, too.

The basic element of electronic education system refers to a course as such with its defined structure in chapters and appropriate navigation (Schmidt, 2006). These courses may be added to the system on the administration level even by education manager and thus, educational concept can be created centrally (Vandyke, 1990). The course may include theoretical unlimited amount of data, test questions, tests as well as final certificate. To create a course means to define its content structured in a well-arranged way into subchapters, to designate a circle of people or whole departments that are obliged to make themselves familiar with the topic, to create a time schedule to make themselves familiar with curriculum and exam taking time. Each course may and probably will be only one of the set of prescribed courses and their follow-ups called "learning path". It is designed for complex training of a worker type and coping with

whole educational process for his/her position. Standardized systems include possibilities to import these courses and tests simply in order to simplify the courses if prepared by an external company. The advantage of electronic education is also its multimedia that increases the potential for faster curriculum learning. Video-demonstrations of the production process, speeches given by management staff, audio-records from lectures or courses like archive, flash animations illustrating the curriculum refer just to a small example of potential creativity of “corporate pedagogues - tutors” how to pass on the curriculum in the most interesting way and they mean increased sensory perception for coping with curricula of the corporate know-how. However, multimedia require increased demands to their creation and processing what has impact on solution price or course content processing price.

Relevant output of the educational process is successful learning of curriculum usually expressed in percentage or minimum score for passing final test or exam. It is difficult from the organizational viewpoint and stressful for the person being educated to measure the level of his/her knowledge in a standard form. E-learning offers instant numeric test outputs success rate information, amount of wrong answers, possibilities of repeating the curriculum and repeated testing without additional time costs for the training organizer. From these outputs the systems can provide education managers with an instant overview of current state of training, number of re-trained persons, unsuccessful graduates and lists of persons who could not make tests on time and based on that they can manage their further work while educating the employees of the organization (Hong, 2009).

The decision to introduce e-learning as education tool into internal company processes means first to specify requirements that serve as a base when selecting a supplier of such system. It refers to answering questions where and how such system shall be operated, its technical requirements and platforms, safety of operation, whether the system shall be available from intranet only, critical amount of system users and persons in charge of education. These education managers play important role in the process of successful implementation of e-learning system. It is convenient to calculate the expenses of electronic education introduction and to compare it with common organization of education. While electronic education allows re-training of other and new workers at already-prepared electronic course with minimum time costs (theoretically it requires a 1-minute assigning of the obligation to attend the course for the user and informing him/her via e-mail), in a standard training every time it is necessary at least to provide a room and to order (pay) the lecturers. Therefore, in the long run electronic education is a cheaper alternative. Correctly used key elements of e-learning and modernization of educational system is a base for development of qualification of labour force of each organization in all its levels. E-learning brings information development of organization and keeps in step with its progress. Simply, it means education of the future.

The offer of a new study form based on a natural way of learning – self-study offers a highly effective form of lifelong education, low study costs, use of computer and audio-visual aids and determination of study pace. Persons interested may pass through the study programmes on their own place and in their own pace. They may approach their education anytime and for such a long time as they need. Advanced students may skip some parts of curriculum or study them faster while slower students may study in their own pace without limiting their colleagues and striking themselves an unpleasant feeling of being slower. Anonymous internet environment helps to overcome inhibitions and thus, it improves access to information. E-learning is not only an effective method of acquiring knowledge but it also offers to student an opportunity to learn how to orientate in the world of significant amount of information, it teaches how to select information, assort them, process and evaluate them correctly. When using hypertext messages

correctly and connecting to appropriate websites all over the world he/she may avoid lengthy searching and leafing through books. A big advantage of providing information via internet is a possibility of their ceaseless update. Didactic texts presented on internet can be easily added, improved and revised compared to the traditional ones. Distance education creates conditions for potential increase in the quality of educational process, fast way of re-qualification, permanent relation of school with student to bilateral satisfaction and joy of enhancement of knowledge. It creates conditions for lifelong education, fast requalification and widening of circle of knowledge for the needs of labour market. It gives the opportunity to increase the amount of students regardless of teaching capacities. Student educates himself/herself without taking part in regular teaching while being supported by teachers technically, materially and humanly. E-learning puts teacher in a new position of advisor and creator of multimedia teaching aids. When used in daily study he/she gets more time for personal contact with students and illustrative explanation as some activities are automated (e.g. evaluation of tests). Nowadays, there is a lot of information that student does not have to remember but he/she must work with it creatively. By creating e-learning courses there are conditions for building national or multinational knowledge database with the possibility of courses exchange.

1.2 Identification of training needs

The first step of systemic education refers to determining the need of education and development of employees. It is the effort to identify an imbalance between two hardly measurable values referring to qualification of employees (knowledge, skills, abilities and handling) and requirements of the position to employee's education and qualification. Efficiency of educational activities stands behind the precondition of constant ascertaining and analysing of real need of education. The need of education is displayed by each ascertained imperfection, gap or problem hampering employees or employers to achieve individual or strategic objectives. Education and development can never be effective without knowing objectives and existing results on the level of single employees, teams, organizational units and employer as a whole. Čihovská (2010), Čichovský (2002) describe basic identification of workers' needs on several analyses of corporate, team and individual needs. Identification of educational needs comprises following analyses:

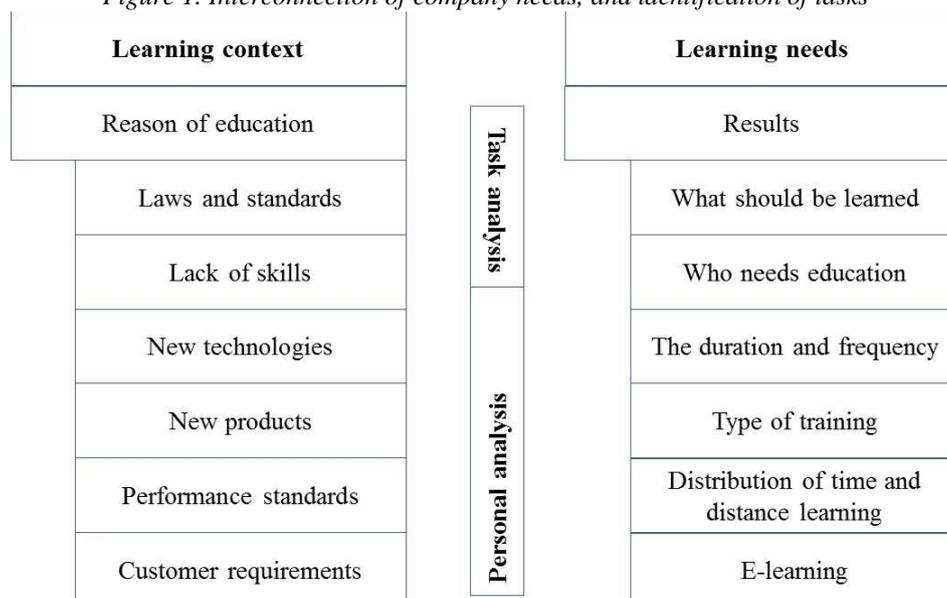
- Analysis of corporate and personal plans – knowledge and skills types that could be necessary in the future as well as amount of people having these knowledge and skills are derived from them,
- Analysis of working positions for educational needs – referring to necessary quantity and quality of knowledge necessary for successful performance of work at respective position,
- Survey of educational needs – requirements from concrete workers for their further growth and development as well as from direct superiors are taken into account as a complement of systemic examination of educational needs.

At the same time education should lead to solving development needs of the enterprise. The enterprise should prepare employees in such a way that they are competent to fulfil difficult assignments and tasks in the future. From this viewpoint it is difficult to stipulate the need of technical preparation and development of employees precisely; its basis lies especially in the estimations and approximate procedures. The final result of the first stage should be answers to two basic questions:

- Who should get the education?
- What should he/she be educated in?

It means determining an individual or a group of employees as well as focusing the content of the educational programme (Compos et al., 2002). Several similar approaches to the process of education needs identification can be found in the professional literature. It is important to proceed from the identification of needs, company and employees' needs and from identification of tasks that are interconnected. However, as a result we can state that it is a logical sequence in determining who participates and in what training and why company needs to develop concrete areas. The picture below shows the interconnection of company and employees needs and identification of tasks.

Figure 1. Interconnection of company needs, and identification of tasks



Source: According by authors

The stage of employees' educational process planning is a follow-up of the identification of employees' education needs. Education plan is one of the most important tools for human resources development management. The plan shall ensure harmonization of employees' qualification structure and objectives and tasks of the enterprise. Warburton (2009) thinks that a well-elaborated employees' education plan shall answer questions as follows:

- What education shall be ensured? (education content),
- Whom? (individuals, groups, occupation, categories, participation selection criteria),
- In what way? (at the workplace at work, out of the workplace, educational methods, didactic aids, curricula, educational regime),
- By who? (internal or external pedagogues, organization itself, educational institutions),
- When? (date, time plan),
- Where? (place, e.g. concrete organizational unit of the organization, educational facility of the organization, rented educational facility, educational facility of a different organization, concrete public or private educational institution, arrangement of accommodation, meals, transport),
- For what price, with what costs? (budgetary side of the plan),
- How to evaluate education results and efficiency of single educational programmes? (Evaluation methods, who shall make the evaluation when evaluation shall take place).

Educational programmes refer to concrete formulation of single educational plans. Each educational programme must be elaborated individually. Determination of educational

programme content and target participant group is defined by the need of education and concrete educational objectives. The efficiency evaluation concludes overall employees' education cycle and at the same time it is a base for identification of needs that is a starting point of another process. The evaluation of educational process lies in comparing education objectives, its results and answering the question to what degree education of employees in the organization met its purpose. Its foundations shall be laid in the stage of planning of whole educational process. The evaluation of education should be based on several criteria and procedures because education objectives are hard to qualify and acquirement of credible information on education results is problematic. Kanuka (2009), Warburton (2009) suggests four levels how to get information on education efficiency and its contributions:

- Asking training participants about their experiences from the training (What do you think about the training? Was the training useful for your work? What was interesting about the training and what was not? Would you recommend this training to your co-workers? How would you improve the training? What topic should next training focus on?);
- Asking direct superiors of training participants (Has your subordinates' work and work results improved after the educational process? How do employees fulfil new tasks and how did they cope with new knowledge and skills? Do employees use acquired knowledge and skills in the practice? Do employees need further education?);
- Watching employees at their work (Do employees work better after finishing the training? – if not for what reason? Has employees' working behaviour changed? Do employees need further training? – If so, what training?);
- Asking the trainer (Were employees interested in training topic? What progress did they make? What new knowledge and skills did they acquire? Were they active? Are employees educable and able further development?).

2. Conclusion

As mentioned above the key question from the viewpoint of education success rate is the choice of suitable education method. It, of course, depends on various other factors like education objectives, concrete needs and form of education. Combination of different education methods brings better results. Using certain suitable group of methods attracts the attention of learning persons and helps to overall education. There are many educational methods, however, only some of them are mentioned in the paper. At the same time methods may be divided into two big groups. First group of methods is used at individual working process and the second one out of the working process. Common feature of the education methods group is an opportunity of individual approach to employees being educated, respecting their personality and specific approach to acquiring new information and skills. Education methods at the workplace during work performance are often used for education of newly recruited workers or additional training of current workers of the organization. They have practical character. Trainer's personality, his/her willingness and ability to learn, explain, listen and make feedback plays extraordinary role in these methods. In these cases trainer acts as employer's representative, his/her behaviour and approach may affect not only the relationship of trained employee to him/her but also to whole organization.

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GLOBAL PROBLEMS OF THE CONTEMPORARY WORLD AND THEIR SOLUTIONS AT THE LOCAL LEVEL THROUGH SOCIAL ENTREPRENEURSHIP

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Abstract. Globalization is an important factor in the development of the world economy. It is a phenomenon that brings prosperity, but in the same time problems in various areas of society. Population explosion, environmental, material and energy problems, loss of pro-social behaviour, educational differences contribute to the deepening of economic and social inequality of individuals. The effects of globalization are also reflected at the local level, mitigation is possible only through joint efforts. In the area with social conditions deterioration and employment opportunities find their place organizations of the social economy. Social Economy was established in response to the needs of society caused by an increase in unemployment and poverty, unfavourable demographic development, social marginalization, social exclusion and family crisis. The problems during the global financial and economic crisis deepened and led to innovative approaches search to address them. The social economy applied to a market economy is a successful and promising form of business. Based on foreign experience and in eastern European countries, including Slovakia, are created new business models in the social economy. Social entrepreneurship is a modern tool of social economy and social policies to take various legal forms, using hybrid method of financing. This paper focuses on the analysis of the current state of the social economy and the prospects for its development in Slovakia with emphasis on different aspects of the municipal social enterprises.

Keywords: globalisation, social problems, unemployment, social economy, social enterprises

JEL Classification: L31, O35, A13

1. Introduction

Globálna kríza je charakterizovaná najmä svojim finančným rozmerom, ale súčasne je to krízou moderných inštitúcií vyrovnáť sa s výzvami vyčerpania zdrojov, klimatických zmien, demografických alebo rozvojových problémov, ktorými je najmä chudoba, nezamestnanosť a sociálne vylúčenie. Koncept sociálnej ekonomiky je široko vnímaný ako jeden z možných prístupov na riešenie týchto nových výziev (Strečanský & Stoláriková, 2012). Rastie potreba novátorských prístupov, ktoré prekročia rámec ustálených inštitucionálnych a sektorových hraníc doterajších riešení spoločenských problémov. Zdôrazňuje sa pritom úloha sociálnych inovácií, ktoré sa zameriavajú na neuspokojené potreby jednotlivcov alebo miestnej komunity. Formujú sa nové stratégie sociálnej inklúzie, ktoré sa orientujú na využitie a mobilizáciu lokálnych zdrojov (Lubelcová, 2012). V priestore občianskej spoločnosti v duchu morálky, humanizmu a sociálnej solidarity vznikajú rôzne iniciatívy na uspokojenie starých aj nových sociálnych potrieb. Miestna verejná správa má v tomto procese veľmi významnú a

nezastupiteľnú úlohu, keď poskytuje podporu, koordináciu alebo sa zapája do aktivít sociálnej inklúzie v rámci medzisektorovej spolupráce. Rodí sa nový vedný odbor – sociálna ekonómia a nový nástroj sociálnej politiky v podobe sociálnej ekonomiky (Pongrácz, E. et al.).

2. Regionálne a lokálne prejavy súčasných globálnych problémov

Najväčšie globálne problémy súčasného sveta nás ohrozujú najmä v oblasti environmentálnej, demografickej, ekonomickej, politickej a sociálnej. Znečisťujeme a nešetríme životné prostredie, odčerpávame prírodné zdroje, rastie diskriminácia rôzneho druhu, terorizmus a korupcia, sociálne vylúčenie a rozdiel medzi bohatými a chudobnými. Navyše zápasíme s nepriaznivým demografickým vývojom a krízou rodiny. Tieto globálne problémy majú priame následky na lokálny rozvoj a predovšetkým na život rodín a komunit.

Stav životného prostredia a časté prírodné katastrofy sú prejavom globalizácie. Znižovanie rozlohy lesov, degradácia pôdy, kontaminácia vôd a zvyšujúca sa produkcia odpadu je výsledkom výrobných procesov a spotreby modernej spoločnosti. Klimatické zmeny ohrozujú ekonomiky krajín nie len z pohľadu poľnohospodárstva, ale globálne otepľovanie je aj energeticky náročné (napríklad využívaním klimatizácie) a predstavuje zvýšené riziko z hľadiska stále sa opakujúcich živelných pohrôm. Keďže globálne otepľovanie spôsobuje prudké zmeny počasia, víchrice, zosuvy pôdy, prívalové lejaky, povodne sú čoraz frekventovanejšie (Poláčková, 2011).

Ďalším závažným problémom, ktorému čelia členské štáty Európskej únie, je starnutie populácie a s tým súvisiace požiadavky na ekonomiky a sociálne systémy (zdravotníctvo, dôchodkové zabezpečenie, sociálne služby). S narastajúcim podielom starých a starších ľudí automaticky rastie aj počet osamelých osôb, najmä z dôvodu mužskej nadúmrtosti sa objavuje fenomén osamelých starých žien. Z dôvodu nízkych príjmov, nedostatku sociálnych kontaktov, nedostatočného prístupu k sociálnym službám, zdravotných a iných problémov, starí ľudia často ostávajú na okraji spoločnosti a pri riešení svojich sociálnych problémov sa spoliehajú na cudziu pomoc.

Proces sociálnych a ekonomických premien spoločností je zložitý a časovo náročný, má permanentný charakter, s nevyhnutnosťou riešiť najaktuálnejšie spoločenské procesy a javy, medzi ktoré patrí na poprednom mieste i nezamestnanosť (Rievajová, E. et al., 2012). Práca je najlepšou zárukou ochrany pred sociálnym vylúčením a chudobou, preto riešenie nezamestnanosti zohráva kľúčovú úlohu v sociálnej inklúzii. Nezamestnanosť predstavuje nevyužitú potenciálnu hodnotu ekonomiky a je sociálnym indikátorom spojeným s takými spoločenskými javmi, ako sú kriminalita, mentálne a fyzické zdravie. Nepriaznivo vplyva na rodinný život, znamená stratu sociálneho statusu spojeného s nežiaducimi sprievodnými javmi; nezamestnaní sú ohrození chudobou a sociálnym vylúčením.

Za posledné roky sa príjmové rozdelenie stalo nerovnejšie, zatiaľ čo reálne príjmy stagnovali alebo prepadli vo viacerých krajinách EÚ, ktoré boli osobitne postihnuté krízou. To sa prejavilo vo zvýšení podielu obyvateľov EÚ trpiacich nedostatkom práce, peňažnej chudoby a/alebo sociálnemu vylúčeniu a materiálnej deprivácii (Šipikalová, 2015, A).

Vážnu spoločenskú zmenu súčasnosti predstavuje aj kríza rodiny a príbuzenských vzťahov. Rodina je základnou bunkou spoločnosti a nezastupiteľnou sociálnou inštitúciou, v rámci ktorej sa poskytuje okrem iného starostlivosť pre jej členov a prebieha aj ich socializácia, vytvára základy pre morálne a sociálne cítenie. Tradičná rodina sa stáva menšinovým spôsobom života

a čelí rozpadu v mene individualizmu a egoizmu. Oslabenie tohto inštitútu sa prejaví v narušení sociálnych väzieb, ktoré sú základom existencie spoločnosti.

Globalizácia už dosiahla svoje limity a zmierniť tieto problémy je možné len spoločným úsilím. Riešením môže byť vytváranie lokálnej ekonomiky, ktorá navyše prináša nové pracovné miesta, naštartuje obnovu sociálneho kapitálu a tvorbu miestnych komunít. Spoločensky zodpovedné správanie jednotlivcov, komunít a miestnej samosprávy je predpokladom udržateľnej budúcnosti.

3. Spoločenská zodpovednosť miestnej samosprávy

Spoločenská zodpovednosť podnikania (Corporate Social Responsibility – CSR) postupne získava širšiu akceptáciu a uplatnenie v každodennej praxi. Zodpovedné podnikanie zahŕňa aj sociálne a environmentálne hľadisko do konania spoločnosti.

Spoločenská zodpovednosť firiem je v posledných rokoch veľmi rozšírená téza v členských štátoch EÚ. Otázky spoločenskej zodpovednosti firiem sa uvádzajú už v roku 1953 v knihe H. Bowera: *Social Responsibility of the Businessman v USA*, v ktorej sa definovala spoločenská zodpovednosť ako záväzok podnikateľa uskutočňovať také postupy, prijímať také rozhodnutia alebo viesť rokovania takým smerom, aký je žiaduci z hľadiska cieľov a hodnôt spoločnosti. Vzápätí vznikla tzv. Carrollova štvordielna definícia CSR, ktorá sa skladá z ekonomickej, zákonnej a etickej zodpovednosti (Doležalová, 2005).

Európska únia sa o koncept spoločensky zodpovednej firmy začína zaujímať v 90. rokoch 20. storočia najmä preto, že v nej videla nástroj na dosiahnutie trvalo udržateľného rozvoja. Komisia EÚ sa problematikou spoločenskej zodpovednosti začala zaoberať v roku 2001 vydaním tzv. Zelenej knihy, kde uviedla aj prvú európsku definíciu spoločenskej zodpovednosti firiem (CSR), ktorá je dobrovoľná integrácia sociálnych a ekologických hľadísk do každodenných firemných operácií a interakcie s firemnými zainteresovanými osobami či so skupinou osôb. EÚ tým podporila dobrovoľný, a nie povinný charakter spoločenskej zodpovednosti firiem. Organizácie občianskeho sektora vnímali v spoločenskej zodpovednosti firiem prísľub stabilného toku financií pre svoje aktivity.

Významným medzníkom v celosvetovom rozvoji spoločensky zodpovedného podnikania bol aj vznik medzinárodnej siete Global Compact, ktorú v roku 2000 iniciovala OSN. Zastrešuje mimovládne organizácie, agentúry OSN a zástupcov firiem so spoločným cieľom presadzovať princípy spoločensky zodpovedného podnikania v oblasti ľudských práv, pracovných štandardov, životného prostredia a antikorupcie.

Podľa konceptu CSR sa firmy snažia rešpektovať záujmy všetkých zúčastnených strán. Za zainteresované strany (stakeholders) môžeme považovať vlastníkov, zamestnancov, dobrovoľníkov, dodávateľov, spotrebiteľov, konkurenčné podnikateľské subjekty, subjekty verejného a tretieho sektora, miestnu komunitu. Svoje aktivity voči akcionárom, dodávateľom aj zákazníkom rozvíjajú eticky, pričom kladú dôraz takisto na motiváciu a dodržiavanie práv svojich zamestnancov. Využívajú také obchodné stratégie, ktoré prispievajú k ochrane životného prostredia, zapájajú sa do podpory a rozvoja miestnej komunity. Tieto aktivity často realizujú aj formou medzisektorovej spolupráce.

V teórii stakeholder managementu sa samospráva ukazuje ako kľúčový subjekt, ktorý vymedzuje legislatívny rámec, vytvára podmienky pre výkon podnikateľskej a mimovládnej činnosti, čo sa premieňa do tvorby pracovných miest. Filozofia konceptu spoločenskej zodpovednosti verejnej správy predpokladá, že žiadny úrad neexistuje len v ekonomických

súvislostiach, ale ovplyvňuje celé okolie a tento vzťah je obojstranný (Jad'ud'ová & Repa, 2011).

Hlavným cieľom spoločenskej zodpovednosti verejnej správy je zabezpečenie udržateľného rozvoja a v konečnom dôsledku kvality života miestnych obyvateľov.

Koncept Corporate Social Reponibility pre miestnu politiku plánovania a hodnotenia bol vyvinutý sieťou REVES (Európska sieť miest a regiónov pre sociálnu ekonomiku) koncom 90-tych rokov 20. storočia. Pre jej úspešnú implementáciu v praxi je žiaduce mať na zreteli nasledujúce pravidlá:

- dobrovoľná účasť miestnych a regionálnych samospráv,
- realizovať princípy územnej sociálnej zodpovednosti podľa najlepšie dostupných postupov,
- vnímať územnú sociálnu zodpovednosť ako investíciu a nie náklady,
- motivovať zamestnancov k vzdelávaniu v oblasti zavádzania princípov územnej sociálnej zodpovednosti (Jad'ud'ová & Repa, 2011).

4. Sociálna ekonomika a sociálne podnikanie

Finančná a hospodárska kríza ako i narastajúce obavy o sociálne a ekologické dopady ekonomického rastu prebudili opäť záujem o alternatívne výrobné a spotrebné možnosti. Do popredia sa dostáva sociálne a solidárne hospodárstvo, ktoré uprednostňuje sociálny blahobyt, spoluprácu a solidaritu pred ekonomickým ziskom. Posledné desaťročia priniesli pomerne rôznorodé formy organizácií sociálneho a solidárneho hospodárstva ako aj ich expanziu (Šipikalová, 2015, B). Sociálna ekonomika vychádza z iniciatív občanov, ktorí sú ochotní znášať určité ekonomické riziko. Vlády zvyčajne podporujú túto formu hospodárstva, lebo súčasne sa podporuje modernizácia systému verejnej solidarity a zároveň sa znižujú verejné výdavky (Hunčová, 2011).

Sociálnu ekonomiku môžeme považovať za súčasť ekonomiky, ktorá je riadená solidaritou, jej primárnou úlohou je napĺňanie sociálnych cieľov, v mnohých prípadoch sleduje spoločenské ciele. Môžeme ju chápať aj ako faktor budovania a rozvoja sociálneho kapitálu, a to prostredníctvom ekonomickej činnosti združených občanov. Rozvíja a posilňuje aj sociálne siete v alternácii aktivít tretieho a verejného sektora a v konsenze s nimi.

V priestore so sociálnymi problémami nachádza sociálne podnikanie svoje opodstatnenie ako nová oblasť podnikateľských aktivít, pričom sociálny podnik môže nadobudnúť rôzne organizačné formy. Môže ho zriadiť právnická alebo fyzická osoba, ale aj obec, samosprávny kraj, združenie obcí, združenie samosprávnych krajov alebo aj právnická osoba, ktorej zriaďovateľom je obec alebo samosprávny kraj. A práve miestna samospráva pozná najlepšie svojich obyvateľov, miestne prostredie, potreby a možnosti lokality. Založením obecného sociálneho podniku môže vytvárať pracovné miesta a zamestnať znevýhodnených uchádzačov o zamestnanie. Sú to sociálne podniky pracovnej integrácie – Work Integration Social Enterprises (WISE). Zameriavajú sa na pomoc hlavne nízkokvalifikovaným nezamestnaným, ktorí sú vystavení riziku trvalého vylúčenia z trhu práce. Podľa spôsobu integrácie môžu byť vytvorené prechodné zamestnania, trvalé pracovné miesta so samofinancovaním alebo s priebežnou dotáciou z verejných zdrojov, ďalej sa takýto podnik môže zamerať na socializáciu na základe produktívnej činnosti.

Princípy sociálneho podnikania sa v hlavných oblastiach slovenského hospodárstva, ktoré je v posledných rokoch orientované predovšetkým na automobilový a elektrotechnický priemysel, uplatňujú problematcky. Napriek tomu existujú oblasti – predovšetkým na regionálnej úrovni – kde by aplikácia sociálnej ekonomiky v praxi bola prínosom pre slovenské hospodárstvo a mohla pomôcť s riešením niektorých sociálnych problémov. Takýto priestor pre využívanie sociálnej ekonomiky vidíme napríklad v tradičnom odvetví poľnohospodárstva (Poláčková, 2015). Sociálne podniky nachádzajú svoje uplatnenie aj v oblasti ochrany životného prostredia, sociálnych služieb, vzdelávania, kultúry ako i v iných sférach.

Pre úspešnú implementáciu obecného sociálneho podniku je nutné vykonať podrobnú analýzu existujúcich zdrojov (ľudských, materiálnych, ekonomických, prírodných atď.) ako i miestneho trhu, pričom podnikateľský plán by sa mal tvoriť za účasti všetkých zainteresovaných strán. Vyžaduje sa k tomu aktívny a zodpovedný prístup zástupcov miestnej samosprávy. Treba si však poznamenať, že striktné predpisy a politickým programom ovplyvnený priamy zásah verejnej správy v oblasti sociálneho podnikania môže spôsobiť zníženie očakávaného efektu pri dosahovaní stanovených cieľov (Defourny & Nyssens, 2012).

5. Conclusion

Európa prechádza zásadnými zmenami v hospodárstve ale i v sociálnej sfére spoločností a tento proces kombinuje staré problémy s novými. Sociálne hospodárstvo prináša alternatívne modely a praktické riešenia na tieto výzvy (Korimová, 2008). Sociálne podniky majú osobitné miesto v trhovom hospodárstve, pričom je potrebné uvažovať nad rámec “bipolárneho” vnímania ekonomického prostredia (trh a regulácia štátu). Musíme mať na zreteli aj ďalšie subjekty, vzťahy a činnosti, t. j. širšie poňatie ekonomiky, čo zahrnuje najmä interakcie medzi jednotlivcami ako i človekom a jeho životným prostredím (Nyssens & Defourny, 2012). Otvára sa nám priestor na podnikanie so sociálnym cieľom, prostredníctvom ktorého sa zmierňujú negatívne dôsledky globálnych problémov súčasného sveta. Sociálne podniky predstavujú jedinečnú príležitosť na zníženie sociálnych rozdielov, zatiaľ žiadny iný existujúci mechanizmus nedokázal prinášať takéto zmeny (Gramescue, 2016). Napriek tomu, že činnosti týchto podnikov sú podriadené komerčnému podnikateľskému modelu, sociálny cieľ je uprednostňovaný pred dosahovaním zisku. Vznikajú ako reakcia na neuspokojený dopyt vychádzajúci z komunity, ponúkajú riešenia sociálnych a environmentálnych problémov spoločnosti, tvoria nové pracovné miesta, podnecujú ľudí k aktívnym občianskym postojom, budujú silné a súdržné komunity, prispievajú k tvorbe sociálneho kapitálu, napomáhajú sociálnemu začleneniu a v konečnom dôsledku aj k zvýšeniu kvality života.

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GLOBALIZATION AND ITS IMPACT ON THE DEVELOPMENT OF PERSONAL CONTROLLING

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Abstract. Globalization trends currently affect all the spheres of social life. Affect the lives and work of people - positive and negative. Globalization is changing the priorities, values and needs of people - similarly in the business environment. This are is characterized by volatility and increasing demands on the ability of managers. To maintain and develop on the market they use a various support tools, which appear to be effective in a multinational environment. Contribution focuses on one of them - personal controlling. Personal controlling is a specific area of controlling. Its mission is to exercise a controlling tools in human resources are. Personal controlling generally represents a system of planning, control and care information flows. It is a continuous monitoring and identification of deviations from set goals and creating action for their elimination. It helps to analyse the economic and social consequences that affect the performance and motivation of individual employees. Partial aims are oriented to the characteristics, tasks and tools of personal controlling and they point out the opportunity to make improvements in human resource management. This managerial function is under the influence of globalization and at the same time is useful in the context of staff marketing. This specific part of marketing has gradually established itself on the Slovak market.

Keywords: globalization, staff marketing, controlling, personal controlling

JEL Classification: F6, M31, O15

1. Introduction

Ludské zdroje zohrávajú rozhodujúcu úlohu v rozvoji úspešnej činnosti firmy. Človek ako mysliača a tvorivá bytosť sa popri moderných výrobných technológiách a kvalitnom know-how stáva základným prvkom úspechu organizácie. Kvalita ľudského činiteľa ovplyvňuje každý tovar od jeho vstupu do organizácie, cez realizáciu výrobného procesu až po predaj výrobku konečnému spotrebiteľovi. V prípade poskytovania služieb sa človek stáva úplne zodpovedný za úspech alebo neúspech svojej práce. Možno konštatovať, že v podmienkach Slovenskej republiky sa dôraz na kvalitu a profesionálne riadenie ľudských zdrojov v súčasnosti kladie viac ako kedykoľvek predtým. V ére rozvíjajúcej sa globalizácie sa naša krajina ocitla v tvrdej konkurencii, kde sa presadí len ten, kto kvalitu výroby chápe ako samozrejmosť (Nadanyiova & Kicova, 2015). Preto je dôležité zamyslieť sa, aké kroky v oblasti ľudských zdrojov je potrebné prijať, aby sa práve oni stali prínosom k zvyšovaniu kvality práce a zároveň konkurenčnou výhodou organizácie (Chlebikova, Misankova & Kramarova, 2015). Zavedenie personálneho controllingu v podniku môžeme považovať za jeden z prostriedkov ako pracovať

na skvalitňovanie ľudského potenciálu vo firme. Mal by sa stať neodmysliteľnou súčasťou riadenia ľudských zdrojov. Ponúka všetky potrebné informácie pre rozhodovanie personálneho manažéra i vedenie podniku. Vyplýva to z jeho charakteristickej črty zistené poznatky o súčasnom stave použiť pri formulácii návrhov a odporúčaní do budúcnosti. Controlling by teda mal hľadiť dopredu, odhadovať budúce trendy a včas o nich informovať manažérov. Ďalšie pozitívum vyplývajúce zo zavedenia personálneho controllingu je, že sleduje motiváciu zamestnancov, porovnáva ju so želaným stavom a snaží sa odstrániť alebo eliminovať odchýlky s cieľom zvýšiť spokojnosť zamestnancov a ich osobnú zainteresovanosť na stratégii spoločnosti. Personálny controlling tiež kladie dôraz na dobrú informovanosť všetkých zainteresovaných zamestnancov o jednotlivých ukazovateľoch riadenia ľudských zdrojov, umožňuje hľadať rezervy v riadení, spôsoby ich odstránenia a tým prispieva k zvyšovaniu hodnoty podniku. Zavádzanie systému personálneho controllingu v podnikoch je v našich podmienkach ešte len v začiatkoch. Jeho potrebu si však už začínajú uvedomovať veľké firmy, najmä tie, ktoré majú okrem prístupu k zahraničnému kapitálu zabezpečený aj prístup ku know-how svojho zahraničného investora.

2. Personálny controlling

V našich podmienkach je personálne riadenie považované veľkým množstvom manažérov za veľmi ťažko meniteľnú disciplínu, no napriek tomu kvalita ľudského kapitálu je hnacou silou hodnoty spoločnosti a určuje aj úspešné postavenie spoločnosti na trhu. V minulosti bol kľúčom k úspechu a prosperite organizácie prístup k finančným zdrojom a kvalitnému technickému vybaveniu, v posledných rokoch sú to predovšetkým konkurenčné výhody plynúce z hodnoty vnútorných zdrojov podnikov. Riadenie ľudských zdrojov v podniku je veľmi dôležitá funkcia, pretože podniková výroba môže fungovať iba vtedy, ak podnik efektívne zhromaždí a uvedie do pohybu nasledovné výrobné faktory:

- materiálne zdroje (stroje, materiál, energia),
- finančné zdroje,
- informačné zdroje,
- ľudské zdroje. (Armstrong, 1994)

Ak má riadenie ľudských zdrojov prispievať k dosahovaniu firemných cieľov, musí podnik svoje výsledky trvalo hodnotiť. Personálny controlling, ktorý sa zaoberá konkretizáciou krátkodobých a dlhodobých cieľov riadenia ľudských zdrojov a hodnotením ich dosahovania preto predstavuje dôležitú súčasť personálneho manažmentu a prispieva k jeho vyššej účinnosti. Personálny controlling je pojem už nie ojedinelý v slovníku slovenských personálnych manažérov. Súvisí to s narastajúcou snahou našich manažérov merať hodnotu ľudského kapitálu, riadiť jeho výkon v súlade s celkovou stratégiou a porovnávať svoje údaje o personálnej praxi s ostatnými organizáciami. Treba však pripomenúť, že nielen na národnej úrovni ale pod vplyvom globalizačných procesov na čoraz rozsiahlejšom - globálnom trhu (Skoudova & Brodsky, 2015).

Podobne, ako iné oblasti riadenia, ani riadenie ľudských zdrojov sa nezaobíde bez vytyčovania cieľov a sledovania odchýlok plánu od skutočnosti, teda bez aktivít označovaných ako controlling. Význam riadenia ľudských zdrojov pre výkonnosť podniku robí z personálneho controllingu jeden zo strategických nástrojov riadenia. Jeho cieľom je i transparentnosť personálnej oblasti a jej priblíženie potrebám jej „zákazníkov“ (riadiacich pracovníkov a ostatných zamestnancov). Množstvo slovenských spoločností využíva už dnes nástroje personálneho controllingu v podobe rôznych kvantitatívnych ukazovateľov, akými sú

napríklad pohyb pracovných síl, produktivita práce či absencia z dôvodu choroby. Controlling je však komplexný systém, ktorý zahŕňa ďaleko viac nástrojov, umožňujúcich identifikáciu potenciálnych oblastí personálneho rozvoja, zistenia a interpretáciu výsledkov minulých riešení či podporu správnych rozhodnutí do budúcnosti. Personálny controlling je systém plánovania, kontroly a starostlivosti o informačné toky, ktorého cieľom je neustále prispôsobovanie sa meniacim podmienkam. Ide teda o priebežné sledovanie a identifikáciu odchýlok od stanovených cieľov a vytváranie návrhov opatrení na znižovanie ich výskytu. Pomocou personálneho controllingu sa analyzujú tak ekonomické, ako aj sociálne dôsledky opatrení, ktoré v prvom rade ovplyvňujú výkon a motiváciu jednotlivých zamestnancov spoločnosti a následne celej organizácie (Bílková, 2003) Výstupy personálneho controllingu je možné reportovať pre potreby širokej verejnosti vo forme hodnotiacich správ, takzvaných reportov. Reporting je dôležitým nástrojom, ktorý je využívaný najmä v nadnárodných spoločnostiach (Vartiak, 2016). Personálny controlling ako pojem možno interpretovať aj z iného uhlu pohľadu (Barták, 2005) – ako sledovanie, analyzovanie vybraných personálnych ukazovateľov s cieľom zistiť slabé a silné miesta riadenia ľudských zdrojov, nájsť rezervy, a tak zvýšiť výkonnosť a konkurenčnú schopnosť firmy. Podľa tohto autora je úspech celého procesu závislý od správneho výberu ukazovateľov, ktoré musia byť odlišné podľa typu organizácie a požadovaných výstupných údajov. Veľkým problémom v jednotlivých spoločnostiach je skutočnosť, že zhromaždia veľké množstvo údajov na základe rôznych ukazovateľov, ale nedokážu z nich vyvodit' správne závery. Príkladom môže byť fluktuácia zamestnancov. Sledujú, koľko ich odchádza, ale málokto vie, prečo. Je preto lepšie zvoliť radšej menej ukazovateľov, ale s tými správnymi aj správne pracovať (Barták, 2005); (Sozen, Varoglu, Yeloglu et al., 2015).

3. Zavádzanie personálneho controllingu do podnikovej praxe

Pri zavádzaní systému personálneho controllingu je potrebné zabezpečiť ľudské a materiálne zdroje v nasledovných oblastiach:

Oblasť ľudská – úlohou je zabezpečiť dostatočné množstvo kvalifikovaných ľudských zdrojov, ktoré sa budú podieľať na jeho zavádzaní a dopriať im dostatok času na riadnu prípravu. Je nutné, aby sa napríklad znižovanie počtu zamestnancov nevykonávalo plošne, ale vždy na základe vypracovaných personálnych analýz. Nebezpečenstvo v tejto oblasti je očakávanie, že zavedenie personálneho controllingu je krátkodobá záležitosť a jeho efekty sa dostavia okamžite, alebo za minimálny čas.

Oblasť systémová – táto sa zameriava v prvom rade na dostatočnú a správnu prípravu, komplexné poňatie personálneho controllingu a na prepájanie metodických činností a nástrojov s technickými. Ľahko totiž môže dôjsť k situácii, že sa podcení komplexný prístup a niektorá čiastková úloha sa vytrhne z kontextu. Takáto chyba môže mať za následok nezavedenie personálneho controllingu do praxe a nadobudnutie nedôvery v jeho metódy a možnosti.

Oblasť technická – najdôležitejšou úlohou v tejto oblasti je zabezpečenie dostatočných hardverových a softverových prostriedkov.

Oblasť kultúrna – vedie k definícii cieľov, aktívnemu zapájaniu manažmentu, akceptácii systému všetkými jeho aktívnymi a pasívnymi užívateľmi, merateľnosti prínosov, reportingu a interpretáciám informácií a k riadeniu zmien.

Kultúrna oblasť je síce uvedená ako posledná, ale jej význam je z určitého pohľadu najväčší. Prvé tri oblasti je možné popísať alebo kvantifikovať, preto je možné ich zaistiť pomerne bez

problémov. Práve toto je pri kultúrnej oblasti značný problém. Každý vie, že je nutné definovať ciele, ale problém býva v tom, že ich definície bývajú často formálne, alebo sú nesplniteľné v daných podmienkach firmy. Vrcholový manažment často viac proklamuje zavedenie personálneho controllingu, ako ho aktívne podporuje. Preto je potrebné zabezpečiť kvalitný reporting údajov smerom k vedeniu, aby jeho členovia včas získavali presné informácie, a tak sa mohli utvrdzovať v myšlienke, že zavedenie personálneho controllingu bol správny krok a stojí za to ho aktívne podporovať (Homlka, 1998)

4. Úlohy a nástroje personálneho controllingu

Pre efektívnu funkčnosť personálneho controllingu je dôležité, aby spĺňal určité úlohy prostredníctvom špecifických nástrojov. K hlavným úlohám personálneho controllingu patri:

- koordinácia podnikových a personálnych plánov, vrátane plánovania ľudských zdrojov a metód ich ochrany, sledovanie faktorov, ktoré ovplyvňujú štruktúru pracovnej sily v spoločnosti
- zostavovanie rozpočtu a kalkulácii spojených s personálnym manažmentom, optimalizácia nákladov na riešenie jednotlivých situácií analýza štruktúry a vývoja nákladov ľudských zdrojov z pohľadu zamestnancov a pracovných procesov
- controlling výkonnosti zamestnancov a efektívnosti motivačných programov
- controlling ekonomických a sociálnych vplyvov na rozhodnutia podniku

Table 1: Úlohy personálneho controllingu v systéme riadenia ľudských zdrojov

Oblasť manažmentu	Funkcia/úloha controllingu
Zisťovanie počtu pracovníkov	Vykonanie analýzy počtu pracovníkov
Určenie potrieb pracovníkov	Určenie potrieb pracovníkov pomocou plánovania potrieb pracovníkov
Získavanie pracovníkov	Z hľadiska nákladov stanovenie najefektívnejšieho spôsobu získavania nových pracovníkov Príprava nástrojov pre objektívny výber
Rozvoj pracovníkov	Kontrola vzdelávania Kontrola rozvoja kariéry
Prepúšťanie pracovníkov	Z hľadiska nákladov určenie najvhodnejšej formy uvoľňovania pracovníkov
Obsadzovanie pracovných miest	Sledovanie/dozor nad priebehom
Manažment personálnych nákladov	Plánovanie obsadzovania miest pracovníkmi
	Pomoc pri zostavovaní rozpočtu personálnych nákladov Sledovanie skutočných personálnych nákladov Analýza ukazovateľov Analýza odchýlok

Source: Konečný, 2000

Okrem týchto základných úloh prináša personálny controlling jednu veľkú výhodu, ktorú ocenia najmä manažéri ľudských zdrojov. Podáva im prehľadný zoznam údajov predchádzajúcich rozhodnutí, ktoré môžu slúžiť ako základ pre budúce rozhodovania. Úlohy personálneho controllingu v systéme riadenia ľudských zdrojov zobrazil autor Konečný (Konečný, 200) do tabuľky 1.

Charakteristickým rysom controllingu v oblasti ľudských zdrojov je skutočnosť, že sa neobmedzuje len na kvantitatívne aspekty vývoja, ale zaoberá sa tiež kvalitatívnymi a strategickými prvkami riadenia ľudských zdrojov. Z toho teda logicky plynie, že i hlavné nástroje personálneho controllingu majú kvantitatívnu a kvalitatívnu povahu. Zatiaľ čo

kvantitatívny personálny controlling skúma a hodnotí, ako sa vyvíjajú kľúčové personálne ukazovatele, kvalitatívny personálny controlling skúma, či personálne - riadiace nástroje, personálne činnosti a personálne projekty sú skutočne účinné a svojou vyspelosťou odpovedajú domácim alebo medzinárodným pravidlám tzv. najlepšej praxe (best practice). Úspech personálneho controllingu potom závisí, okrem iného, aj od správneho výberu ukazovateľov a následného rozboru a vyvodenia záverov. Ukazovatele sa však môžu v jednotlivých organizáciách podstatne líšiť.

Tiež je potrebné správne nastaviť analytické prepojenie a interpretáciu jednotlivých indikátorov podľa špecifických potrieb každej organizácie (Chodasova & Tekulova, 2012). Konkrétna podoba systému personálneho controllingu môže byť ovplyvnená aj charakterom podnikovej kultúry a významom, ktorý je prikladaný personálnej práci. Autor Urban (1998) uvádza 5 základných nástrojov personálneho controllingu:

1. Údaje o vývoji a štruktúre personálnych nákladov a personálne štatistiky

Tieto údaje bývajú v podniku väčšinou k dispozícii, často je však problémom ich obmedzená porovnateľnosť s údajmi z iných podnikov. Je to nástroj majúci prevažne operatívny a kvantitatívny charakter.

2. Personálne ukazovatele

Predstavujú súhrnné veličiny, ktoré väčšinou majú rovnako kvantitatívny a operatívny charakter. Vhodne stanovené personálne ukazovatele umožňujú porovnanie s inými podnikmi a môžu určiť rýchlu orientáciu v smere podnikového vývoja. Ako príklad ukazovateľov personálneho controllingu možno uviesť:

- pridanú hodnotu na pracovníka;
- počet riadiacich pracovníkov vo vzťahu k celkovému počtu zamestnancov;
- mieru fluktuácie;
- počet pracovníkov personálneho útvaru k celkovému počtu zamestnancov;
- podiel nových pracovníkov odchádzajúcich z firmy v priebehu prvého roku zamestnania;
- podiel vedúcich miest obsadených z vlastných zdrojov;
- počet potenciálnych kandidátov vzhľadom k celkovému počtu uvoľňovaných pracovných pozícií;
- podiel spontánnych uchádzačov o miesta;
- počet dní venovaných ročne ďalšiemu vzdelávaniu pracovníkov;
- pomer manažérskych a odborných školení;
- podiel pracovných miest obsadzovaných podľa plánu personálnych rezerv a pod.

3. Štandardy personálneho controllingu

Určujú ciele pre personálne ukazovatele a definujú ich hodnoty či intervalové pásma. Stanovenie týchto cieľov vychádza z podnikateľských zámerov firmy, napr. z cieľov v oblasti úspor, internej racionalizácie a optimalizácie a. z porovnania s najlepšimi podnikmi daného odvetvia doma i v zahraničí. Ako príklady praktických štandardov v oblasti riadenia ľudských zdrojov môžeme uviesť:

- každý riadiaci pracovník venuje v priebehu roka aspoň 2 dni školeniu zameranému na rozvoj svojich riadiacich schopností;
- u každého pracovníka sa stanoví najdôležitejší demotivačný faktor (určite bude skoro odstránený);
- aspoň raz do týždňa sa bude konať schôdzka každého tímu, či oddelenia;

- každý nový zamestnanec má svoj vstupný (úvodný) plán;
- s každým zamestnancom je aspoň raz do roka vykonaný pohovor týkajúci sa jeho pracovnej náplne, pričom sa s nim dohodnú aspoň 3 nové ciele;
- predpoklad pre vyššiu vedúcu pozíciu sú skúsenosti aspoň z dvoch oblastí riadenia a pod.

4. Audit riadenia ľudských zdrojov

Možno ho nazvať aj ako širšia kontrola účinnosti a výsledkov personálneho manažmentu. Audit môže prebiehať interne, ale aj s pomocou externých poradcov. S cieľom zabrániť „podnikovej slepote“ sa doporučuje aspoň v dlhších časových intervaloch využiť vonkajší audit. Audit riadenia ľudských zdrojov je vhodné rozdeliť do dvoch častí. V prvej časti sa vykonáva hrubé posudzovanie účinnosti personálneho riadenia, ktoré sa potom v druhej časti, ak to bude potrebné, zameria na vybrané kritické body. Vykonávanie personálneho auditu je možné tiež rozčleniť do štyroch nasledovných fáz:

- Prvá fáza auditu spravidla zahŕňa rozhovor s personálnym manažérom. Zameriava sa na hodnotenie systému riadenia ľudských zdrojov podľa štandardných kritérií, na posúdenie personálnych stratégií a politiky a na hodnotenie nástrojov personálneho controllingu.
- Druhá fáza auditu - spočíva v oslovovaní vybraných „zákazníkov“ personálneho riadenia (riadiacich pracovníkov a zamestnancov) Zameriava sa na ciele v oblasti riadenia ľudských zdrojov, kvalitu personálnej práce či riadiaceho procesu všeobecne.
- Tretia fáza auditu - uskutočnia sa vyhodnocovanie podkladov (výsledky dotazníkov a vykonaných analýz) a zhrnú sa výsledky Z vecného hľadiska to znamená zhodnotenie strategických misí, posúdenie ich uvedenia do praxe, preskúmanie priradenia zdrojov jednotlivým cieľom, vykonanie analýzy silných a slabých stránok v porovnaní s konkurenciou, posúdenie organizácie personálneho riadenia v zmysle miery jeho štandardizácie, decentralizácie, prípadne automatizácie.
- Záverečná fáza auditu spočíva v poskytnutí spätnej väzby pre personálne riadenie. Ide o diskusiu nad výsledkami, ich porovnávanie so strategickými požiadavkami a spoločné určenie tém, ktoré by sa mali stať hlavným predmetom pozornosti personalistov.

5. Oslovovanie vlastných zamestnancov

Týmto spôsobom je možné dobre posúdiť kvalitatívnu stránku riadenia ľudských zdrojov v podniku. Možno tak získať reprezentatívne informácie o problémoch v oblasti personálneho riadenia, o očakávaníach, potrebách i smeroch, ktorým je potrebné v budúcnosti venovať väčšiu pozornosť. Tieto informácie by sa mali stať súčasťou objektívnej základne pre ďalšie úvahy o systéme riadenia ľudských zdrojov. Pre vedúcich pracovníkov slúžila ako zrkadlo ich riadiaceho štýlu. Oslovovanie zamestnancov musí spĺňať niektoré základné predpoklady:

- musí byť koncipované konkrétne pre potreby danej firmy vo všetkých svojich fázach (príprava, vyhodnocovanie a stanovovanie záverov);
- musí byť vykonané profesionálne;
- musí existovať jasne deklarovaná vôľa vytvoriť na základe jeho výsledkov príslušné opatrenia, a to spoločne so zamestnancami, ktorých sa závery z neho týkajú. Po obsahovej stránke stoja v popredí týchto prieskumov spravidla tieto témy: spokojnosť pracovníkov, informovanosť, dôvera a identifikácia seba s firmou,

ochota ku zmenám, podniková kultúra, kvalita riadenia, budúce úlohy, kvalita riadenia ľudských zdrojov (servis, kompetencie, vychádzanie v ústrety potrebám), využitie personálnych nástrojov, atraktivnosť zamestnania a pod.

5. Conclusion

Zavedenie personálneho controllingu je možné poňať ako fázový projekt. Fázovanie totiž prináša so sebou určité výhody:

- vytvárajú sa ohraničené a prehľadné časti,
- jednotlivé postupy sú orientované na cieľ, využívajú sa definície cieľov a výsledky každej fázy,
- redukujú sa riziká,
- je možné vrátiť sa k predchádzajúcim fázam alebo prispôbiť ciele nasledujúcich fáz,
- vytvára sa možnosť prispôbiť stratégiu špecifickej potrebe,
- systematickým postupom a postupným znižovaním neistôt a nepresností sa prechádza od všeobecného k detailnému.

Jednotlivé fázy pri zavádzaní personálneho controllingu by mali nasledovnú postupnosť:

Fáza definície projektu

Je najdôležitejšou fázou, pretože nastavuje smerovanie celého priebehu projektu. Určia sa zdroje (financie, personál, príp. externí poradcovia) a dajú sa k dispozícii projektu.

Vývoj adekvátneho systému personálneho controllingu

V tejto fáze sa najskôr skúma existujúci stav na začiatku projektu. Zisťujú sa možnosti jeho zavedenia v konkrétnych podmienkach, navrhne sa rozdelenie úloh a kompetencií, stanovia sa požiadavky, ktoré by mal personálny controlling plniť a v akej podobe, určia sa nástroje, zhodnotí sa potreba zdrojov, vytýči sa postupnosť krokov pri zavádzaní a pod.. Dôležité je, aby sa predložené požiadavky porovnali so súčasnou situáciou.

Implementácia systému personálneho controllingu

Samotné zavedenie systému personálneho controllingu je určite tak náročné ako jeho vývoj. Dôležitou časťou tejto fázy je priebežná modifikácia pôvodne plánovaného modelu. Je výhodou, ak sa zavádzaný systém zdokumentuje do prehľadnej príručky. Aby sa pri implementácii predišlo problémom, ktoré môžu vyvolať nespokojnosť zo strany manažmentu, je nevyhnutne potrebné klásť vysoký dôraz na intenzívnu komunikáciu.

Fáza ukončenia projektu

V tejto fáze je už projekt systematicky ukončený. Je dôležité, aby bol výsledok porovnaný s pôvodne definovanými cieľmi a požiadavkami na funkčnosť, termíny a náklady, čím sa zhodnotí jeho úspech. Tým je daná aj spätná väzba projektovému tímu.

Každý manažér sám musí zvážiť, či investuje čas a náklady, nevyhnutné pre implementovanie personálneho controllingu do svojho podniku. V podmienkach stupňujúcej sa neistoty, ba až neurčitosti globálneho trhu však táto možnosť prinajmenšom stojí za úvahu.

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THE IMPACT OF ECONOMIC GLOBALIZATION ON SUCCESSFUL ENVIRONMENTAL STATE GOVERNANCE

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Abstract. Following Lenschow et al. (2016) and Duit et al. (2016), this paper aims to prove that the nation state has an essential function in regulating emerging environmental issues. Economic globalization may be a principal determinant of unsustainable development: it may generate sustainable processes of production and environmental preservation in one industry/area to the detriment of another industry/area. Governance reactions to globalization should focus on the mutuality of governance mechanisms even beyond established multilevel governance systems. We attempt to address these increasing aspects by elaborating on worldwide interregional connectedness related to globalizing output and trade. We develop primary empirical research for our principal case study that determines that the expansion of international networks of output and trade creates significant challenges for successful environmental state governance. The environmental state's strengths to regulate for sustainability are confronted by mechanisms of economic globalization that require intricate kinds of shared interdependency throughout distant areas. Developing this case and making use of latest contributions to the literature, we consequently reflect on the function of the state in answering to problems of regional interconnectedness. An environmental state influences a relevant set of organizations and practices devoted to the handling of the environment and societal–environmental interplays: it has particular administrative, supervisory, financial, and knowledge arrangements that outline a typical sector of governmental performance.

Keywords: economic, globalization, environmental, state, governance

JEL Classification: F18, Q56, G38

1. Introduction

This study builds on a substantial literature of empirical investigations on the effect of economic globalization on effective environmental state governance. The welfare state is a component of a longer-run mechanism by which power is gathered in nation states (Prowle & Harradine, 2015) by establishing state capacities, accumulating taxes, and designing citizenship. The undertaking of profit associated with industrial technology (Cheung & Leung, 2016) moves forward the international economy in the direction of environmental confines. Neo-liberalism assists the interests of relevant capitalist actors, and fortifies their power. The

level of predominance of neo-liberal notions in a state may limit the extent and strength of environmental economies. Welfare countries have been hindered by the increasing structural power of business and finance contiguous to globalization. The extent and influence of environmental states is impacted by the structure and power of ‘green’ and ‘brown’ business concerns. (Gough, 2016)

2. Literature review

Countries organize political, economic, and social dealings, preserve legal schemes supported by intimidating power, and use important economic and administrative resources via taxation/expenses and their administrative apparatus. How countries function and what they undertake is contingent on intricate interplays among diverse participants that advance in time. Countries are situated at the intersection of domestic and global political order (Reveley, 2015), being the most influential human mechanism for shared undertaking that can coerce compliance and reallocate resources (Popescu, 2015, A): countries exercise power and symbolize rightful authority. The country’s commanding nature, and its harmonization of operations for shared decision making, indicate that it can take action to the ‘public good’ and ‘free-rider’ aspects of environmental issues, and in addition to the distributional divergences they commonly personify. Environmental entities can perform a series of other objectives, contingent upon the participant coalitions that impact events. (Duit et al., 2016) Lacking advancing and carried out global environmental standards, the world’s most relevant branded multinational companies have construed sustainability in corporate terms, embracing the objectives in their actions, and advancing corporate sustainability rules via their worldwide supply chains (Azarhoushang & Rukavina, 2015), and thus functioning as international environmental regulators. Progressively incorporating environmental objectives into their essential business policy, big brands have exhibited advancement and have acquired backing for their international governance endeavors (Ramcharan, 2016) via alliances with advocacy groups and governments. Governments and non-governmental organizations (NGOs) should identify creative manners to influence the rate, degree, and cutting-edge of big brand governance to enhance global laws, state regulations and civil society endeavors to handle worldwide environmental alteration. (Dauvergne & Lister, 2012)

3. Methodology

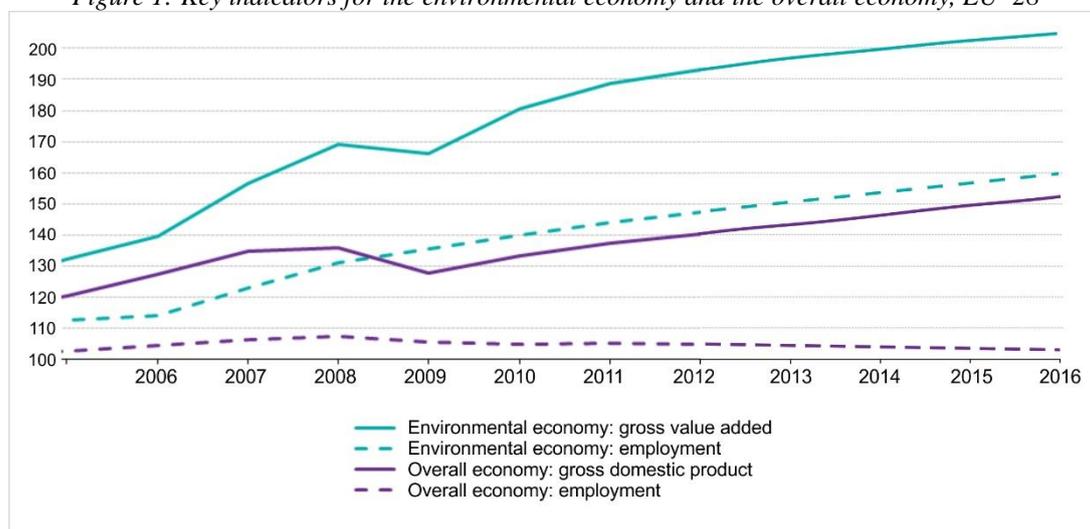
For the investigation of the formulated issues, we develop first-rate recent literature and prove that transnational neopluralism concentrates on the active interplay of particular sets of participants in pivotal policy-making processes. The transnational neopluralist fabric is especially appropriate to environmental policy-making (Tulloch, 2016), chiefly granted the cross-border and ‘glocal’ difficult tasks of environmental deterioration. When the first concerns of important participants are altered by the sense of imminent crisis or by real crises (Zietlow, 2015) and conveyed into systematic undertaking, policy-making processes will engage in environmental challenges successfully. Economic participants may circumvent or biasing policy-making processes, placing environmental action to the bottom in the arrangement of policy first concerns. (Kütting & Cerny, 2015) Successful worldwide environmental governance entails a collective governance proposal with powerful regulation and persistent advocacy (Chapman, 2016) to surpass the additional big brand market enhancements. With economic globalization, trade has harmonized but production has divided into parts as companies have strived to contract out manufacturing and services to the lowest-cost economies

(Lăzăroiu, 2015) with the most inexpensive labour. Outsourcing supplies such corporations more adaptability, cost savings and low-priced inputs, and renounces some direct supervision, bringing in novel risks, especially regarding quality and reliable supply. (Dauvergne & Lister, 2012)

4. Empirical data and analysis

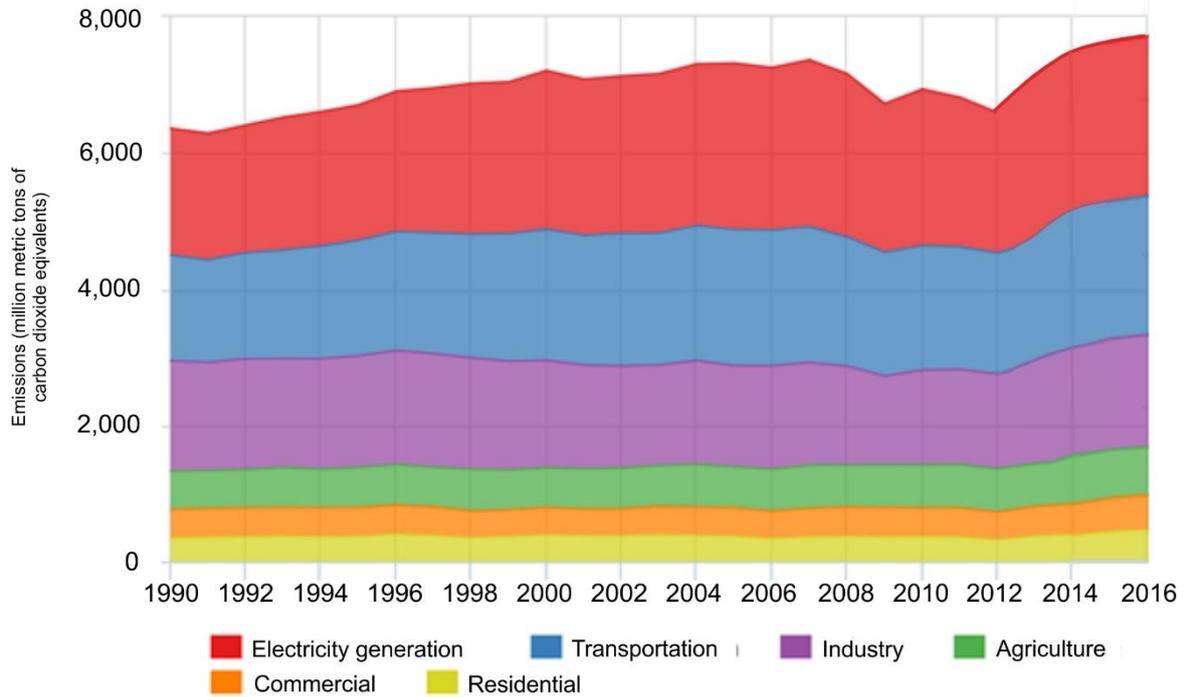
To introduce empirical content to our theoretical model, we start with the finding that the country is disjointed, inconsistent, and somewhat systematic. An environmental state has power over a relevant set of entities and practices (Mihăilă et al., 2016) committed to the handling of the environment and societal–environmental dealings. An environmental state has pursued administrative, supervisory, financial, and knowledge arrangements (Hurd, 2016) that establish a different sector of governmental undertaking. Environmental states exhibit various types of institutionalization, with wide-ranging administrative arrangements (Nica, 2015), policy tools, backing alliances and high society, policy first concerns and issue domains, gaps and inconsistencies, and configurations of normative validation. (Duit et al., 2016) Environmental governance and scheme is greatly impacted by worldwide interdependencies. The nation state should have a decisive function in carrying out rising environmental problems. Economic globalization may be a fundamental reason of unsustainable development (Cesaroni et al., 2015), and may be instrumental in sustainable modes of production and green protection in a sphere or in an area to the detriment of others. Even within a sphere or area, or for a group of participants, beneficial and adverse consequences of globalization may co-exist, and governance reactions to it are likely to disregard the mutuality of governance mechanisms even beyond established multilevel governance systems. (Lenschow et al., 2016)

Figure 1: Key indicators for the environmental economy and the overall economy, EU–28



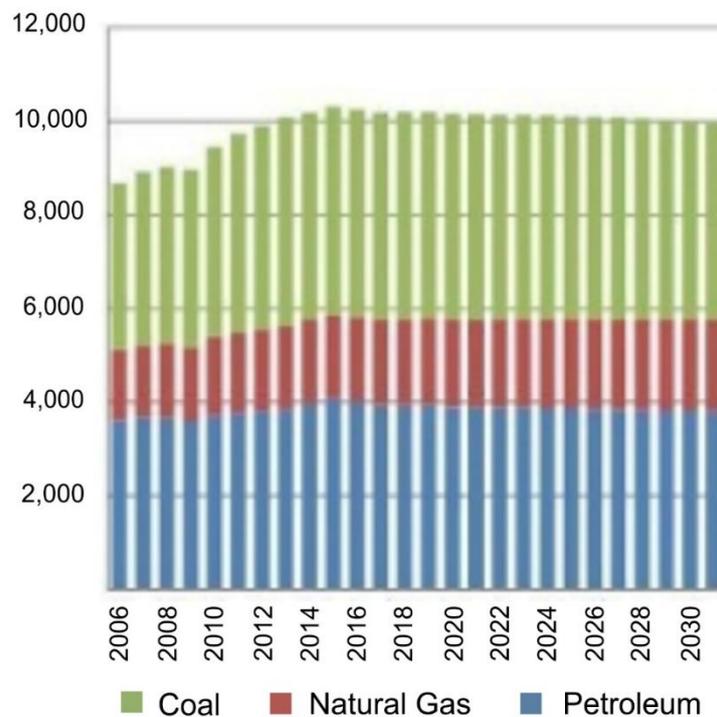
Source: Eurostat and our estimations

Figure 2: U.S. greenhouse gas emissions by economic sector, 1990–2016



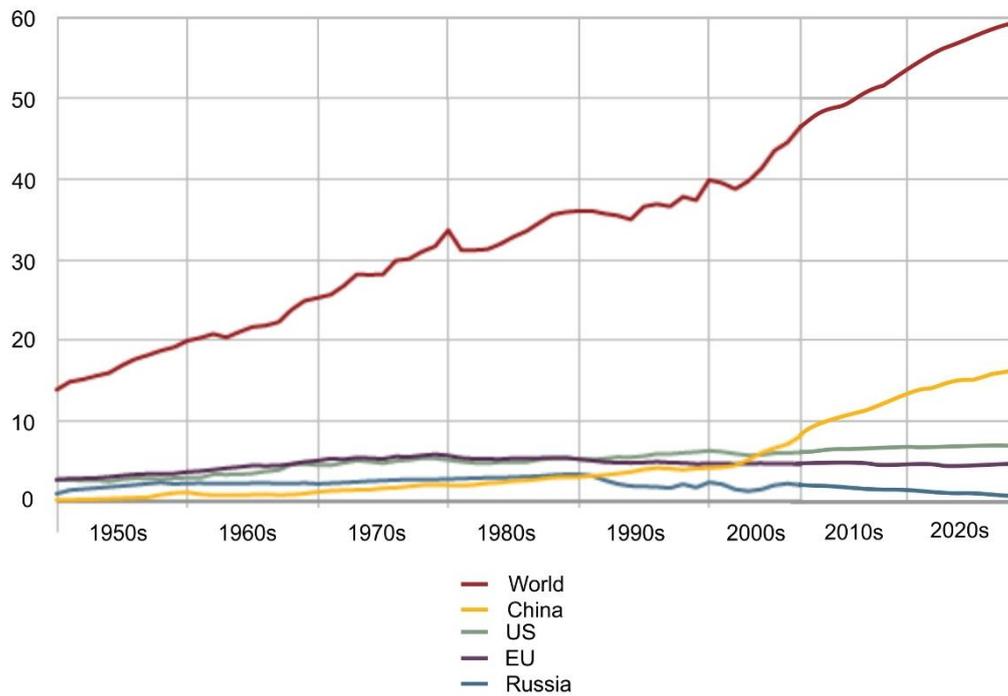
Source: U.S. EPA's inventory of U.S. Greenhouse Gas Emissions and Sinks and our estimations

Figure 3: World Carbon Emissions (million metric tons)



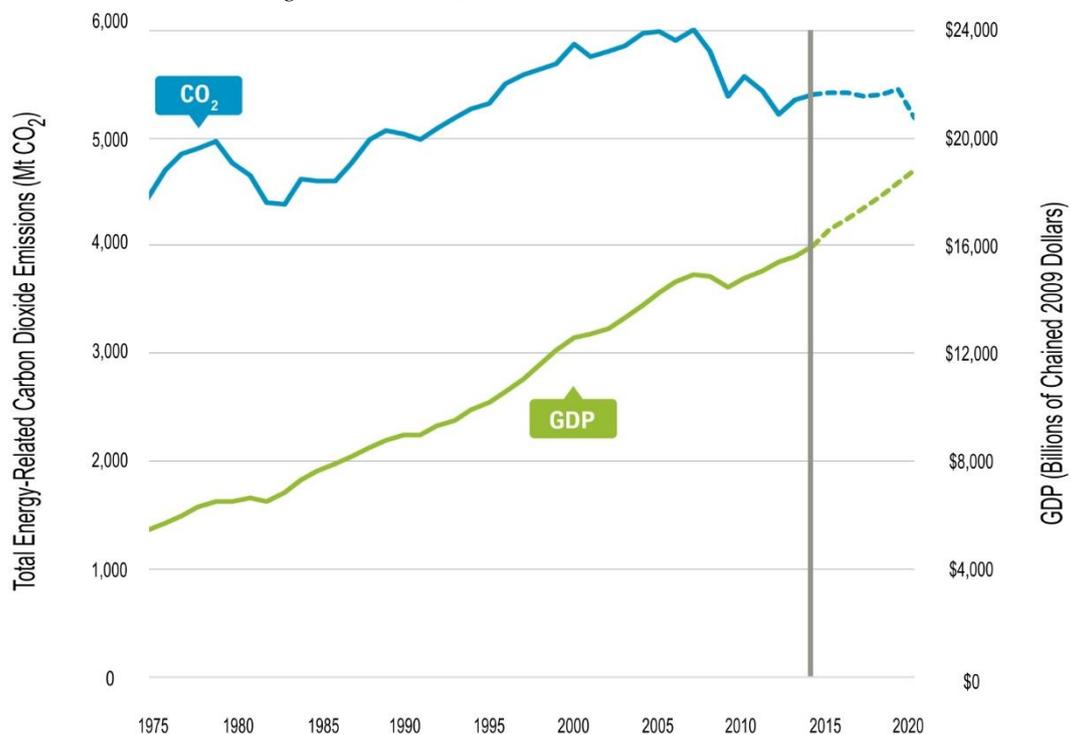
Source: CountryWatch 2015 Energy Forecast

Figure 4: The world's rising emissions. Greenhouse gas emissions, 1950–2020. Gigatonnes (Gt) of carbon dioxide equivalent



Source: PRIMAP and our estimations

Figure 5: U.S. CO₂ emissions and GDP, 1975–2020



Source: World Resources Institute

5. Results and discussion

Our findings support our theoretical discussion and empirical analysis and are consistent with research highlighting that captured between bureaucratic state and intergovernmental organizations and the neoliberal nature of the economic fabric, in conjunction with the advantaged position of material concerns, civil society is compressed and homogenized. Environmental issues cannot be dealt with via governance-type shared undertakings (Willow & Keefer, 2015), as the latter do not involve the intrinsic performance of predominant political-economic mechanisms. The forces both facilitating and hindering successful action are thoroughly entrenched in neoliberal capitalism and the expectation of the desideratum of economic growth. Overconsumption in wealthy industrialized economies (Ștefănescu-Mihăilă, 2015) has boosted resource employment internationally and generated ever more significant degrees of waste and environmental deterioration. (Kütting & Cerny, 2015) The expansion of worldwide networks of production and trade presents significant difficult tasks for successful environmental state governance, because power in the international economy has moved to a particular degree in the direction of networked private sphere participants. The multilevel governance (MLG) examines the interplay of governing entities and participants at diverse scales (Popescu, 2015, B), concentrating on issues of democratic legitimacy in actual governance. The strength of environmental states to increase their influence to the interregional level is determined by advantageous global fabrics and rules, indicating the multilevel character of successful environmental statehood. (Lenschow et al., 2016)

6. Conclusions

The implications of the developments outlined in the preceding sections of this paper suggest a growing need for a research agenda on the effect of economic globalization on effective environmental state governance. Conventional determinants of alterations in welfare countries and environmental countries (Bin et al., 2016) encompass globalization and internationalization, the increasing power of capital and business, and the persistent ascendancy of neo-liberal notions. Global economic and political connections furthers the environmental state and destabilizes the welfare state. Business power advances disparity and damages welfare (Popescu, 2014) and, in numerous economies, obstructs climate-moderation policies, but its influence on the environmental state is determined by the harmony of carboniferous and green business concerns. Multifaceted institutional dissimilarities continue throughout the advanced capitalist economies (Wickremasinghe, 2016) mirroring welfare regimes and diversities of capitalism. The latter, networking with various power and ideational arrangements, manages diverse policy achievements in both domains of state undertaking with divergent social and environmental results. (Gough, 2016)

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ECONOMIC DEVELOPMENT OF EUROPEAN UNION COUNTRIES IN GLOBALIZATION CONDITIONS – QUANTITATIVE ANALYSIS

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Abstract. In the 21st century, in the era of common globalization, we are able to observe dynamic changes in the economic development of European countries. Some of the countries – those with a rather low level of development – have improved their situation within the last couple of years, whilst others are still struggling with many problems. The worldwide crisis which started in the years 2007-2008 influenced most economies and slowed down the process of positive changes in many countries. At present time, Europe has to face yet further challenges, which are influencing different socio-economic fields of life. The aim of the article is the analysis of economic development, the presentation of changes, trends and relationships taking place in this field between the countries of the European Union. One of the most common aggregate characteristics, being the measure of economic development, is GDP per capita. The analysis of this characteristic allowed to make certain reflections. In order to achieve the intended aim we have used quantitative tools and methods. In the study we have applied selected statistic tools: descriptive statistic measures, measures of the relationship between phenomena and dynamic indicators. We have also used trend models and elementary prognostic tools. On the base of the conducted analyses we have made forecasts of the considered variable for two subsequent periods and assessed their admissibility. Moreover, using selected tools of spatial econometrics, we have examined the existence of spatial autocorrelation.

Keywords: economic development, globalization, quantitative tools, spatial autocorrelation.

JEL Classification: C10, C23, F63, O11

1. Introduction

Globalization can be considered as a process, in result of which international relations within different fields deepen. It can also be comprehended as a certain period in the development of worldwide economy, in which the level of relationship between different entities becomes so strong that the economy becomes a certain worldwide organism. (Oziewicz, 2012). We nowadays live in a time of common globalization. More and more distinct relations between countries in many fields: social, economic, financial and cultural are becoming visible, what, in many cases, is beneficial but it also carries certain threats (Bergh & Nilsson, 2010; Rougoor & van Marrewijk, 2015; Stiglitz, 2003; Stiglitz, 2009). Among the benefits we can enumerate among others: a decrease in production and communication costs, possibility of enhancing the growth of underdeveloped countries, forming of new markets and economic entities, wider international cooperation in resolving common problems, easier access to different goods and

services, new technologies, administrative methods etc., assimilation of socio-economic development patterns. Amongst the threats, the ones that must be pointed out are: intensification of aggressive international competition, increase in unemployment, limiting of countries' sovereignty, instability of world's financial system, rapid spread of crises on integrated markets and many others, also of social character (Flejterski & Wahl, 2003). An example of such a strong mutual influence of countries was the worldwide economic crisis, which took place in the years 2007-2008. The crisis very strongly influenced the economies, and its effects could be felt in countries worldwide. It certainly affected many areas of socio-economic life.

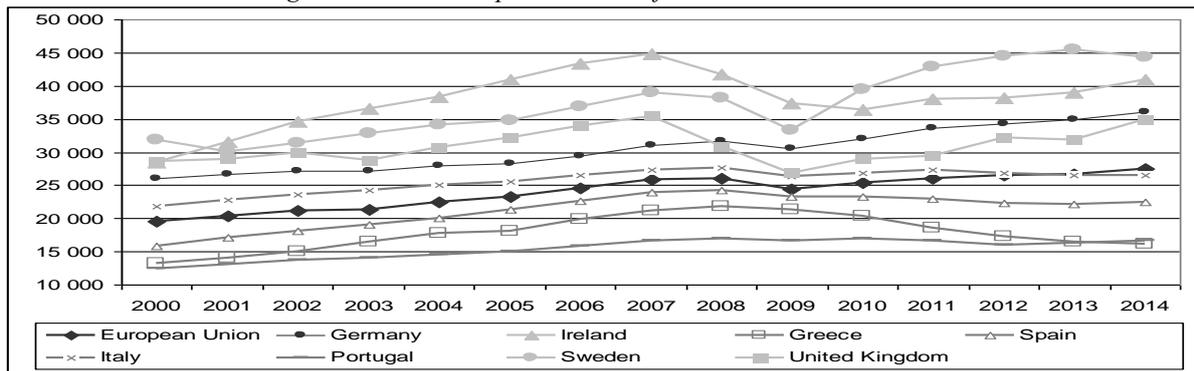
One of the positive results of the globalization process is the assimilation of economic development patterns; reaching its highest level is one of the aims of economic policy of every country. Economic growth, as well as development, constitute significant determinants of a balanced growth, which allows for, among others, a better satisfaction of society's needs (Marciniak, 2013). Therefore, the aim of the article is the assessment and comparison of the economic development level of EU countries, as well as identification of spatial relations in the economic development level of the countries³¹. Analyses will be conducted with the use of quantitative tools.

2. GDP per capita of the EU countries

The analyses were conducted for years 2000-2014. The study included EU countries. In the considerations we analysed a variable most frequently used as a synthetic measure of economic development level – GDP per capita. The data comes from the Eurostat base, whilst the figures and calculations were developed using MS Excel and Gretl.

Figures 1 and 2 show the GDP per capita trend for selected EU countries throughout the whole of the considered period of time. Figure 1 shows the GDP per capita values for several countries from the so called 'old' Union, which are illustrated against the background of the average for all 28 countries which belong to the community.

Figure 1: GDP, euro per inhabitant for selected 'old' EU members



Source: Own research on the basis of Eurostat data

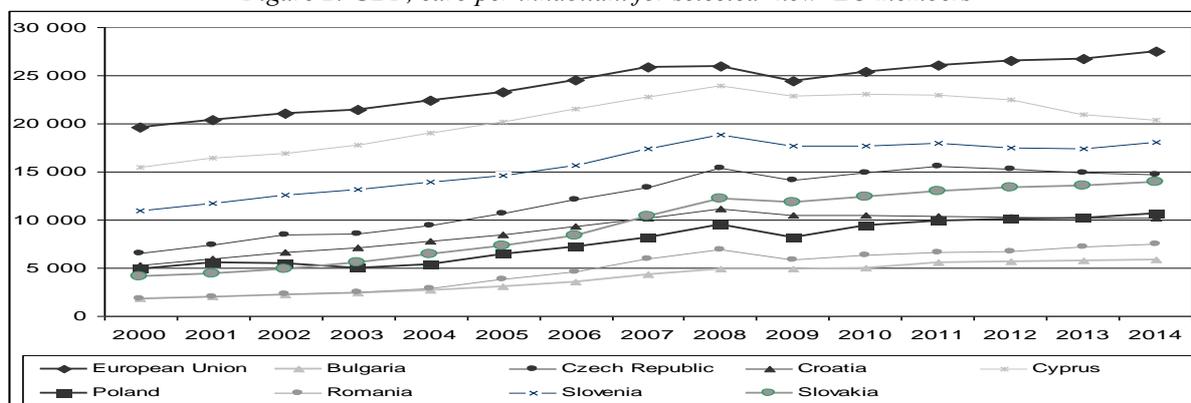
In the case of most of the countries, in the years 2000-2008, we observed a gradual growth of the GDP per capita, after which, in 2009, a fall and next a subsequent growth was recorded. This situation is illustrated by an exemplary time series for Germany. This regularity is slightly

³¹ Spatial analyses of socio-economic characteristics, since W. Tobler formulated the first law of geography (Tobler, 1970), have become an important research area (Anselin, 2010; Overmars, de Koning & Veldkamp, 2003; Pośpiech, 2015; Pośpiech & Mastalerz-Kodzis, 2015; Pośpiech & Mastalerz-Kodzis, 2016).

disturbed in the case of Ireland, Sweden and United Kingdom. These countries recorded a decrease of the GDP per capita value in two years: 2008 and 2009, after which there was an increase. The rule does not also apply to Greece, Spain, Portugal and Italy – in the case of those countries after year 2009 there was a fall in the GDP per capita value or lack of distinct growth. The greatest fall is recorded for Greece – the economy of this country lived through very serious problems in recent years, which, after the worldwide crisis of 2007-2008, slowed down its economic development. In Spain, Portugal and Italy we also do not notice a clear increasing trend of GDP per capita after the years of the crisis; it can be assumed that the economies of these countries were not stable enough for the growth rate to begin increasing gradually after a sudden fall.

Figure 2 shows the values of GDP per capita for selected countries, which became members of the European Union after year 2000. The values of the considered variable were lower than the average defined for the EU during the whole period. GDP per capita of the considered countries ran similarly in the years 2000-2009: until 2008 there was an almost constant growth, after which, in 2009, there was a fall. After this period the situation changed. In countries such as: Bulgaria, Estonia, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Hungary a gradual growth of the value of GDP of a different intensity level was observed (in Latvia the growth started from the year 2011), while in the Czech Republic, Croatia, Cyprus and Slovenia a stagnation or a fall was noticeable – the average rates of changes for selected periods are presented in point 3.

Figure 2: GDP, euro per inhabitant for selected 'new' EU members



Source: Own research on the basis of Eurostat data

3. Empirical analysis with the use of selected quantitative tools

In the empirical analyses we have used descriptive statistics, the measure of correlation between variables (Pearson's linear correlation coefficient), dynamic analysis tools (indices and the measure of average rate of changes) and elementary prognostic tools (the trend function, ex post and ex ante error measures). Moreover, in order to conduct spatial analysis, we have used tools which study the existence of spatial autocorrelation – global and local Moran's statistic. Adequate formulas, methods and concepts were taken from (Anselin, 1995; Bivand, 2009; Cliff & Ord, 1973; Cieślak, 2000; Kopczevska, 2011; Kufel, 2013; Suchecki, 2010).

In the first stage of the analyses we calculated the linear correlation coefficients between the variable observations for each pair of EU countries. In most of the cases the similarities in the value process of the studied variable within the whole period were confirmed – the correlation coefficients were on the level exceeding 0.9. The least correlated with others were the time

series of United Kingdom, Ireland and Greece (correlation coefficients were most often lower than 0.5).

For two separate periods: 2000-2008 and 2009-2014, which were selected due to the development of time series, we calculated the average rate of changes (table 1).

Table 1: Average rate of changes of GDP per inhabitant in the period 2000-2008 (a) and 2009-2014 (b)

Country	Change rate (%)		Country	Change rate (%)		Country	Change rate (%)	
	(a)	(b)		(a)	(b)		(a)	(b)
Belgium	3.5	2.1	Croatia	9.8	-0.6	Poland	8.6	5.5
Bulgaria	13.3	3.8	Italy	3.0	0.1	Portugal	3.8	0.1
Czech Republic	11.4	0.8	Cyprus	5.6	-2.3	Romania	18.3	4.9
Denmark	3.5	2.1	Latvia	15.2	6.3	Slovenia	6.9	0.4
Germany	2.5	3.3	Lithuania	13.9	7.8	Slovakia	14.6	3.3
Estonia	13.7	7.5	Luxembourg	4.8	3.8	Finland	4.2	2.1
Ireland	4.9	1.9	Hungary	10.0	2.7	Sweden	2.3	5.9
Greece	6.5	-5.4	Malta	3.6	5.0	United Kingdom	1.0	5.4
Spain	5.4	-0.8	Netherlands	4.1	1.0	EU (28)	3.6	2.4
France	3.0	1.4	Austria	3.5	2.3			

Source: Own research

In the first analysed period for most of the countries of the ‘old’ Union the average growth rate did not exceed 5% (with the exception of Greece 6.5% and Spain 5.4%), whilst for the new countries of the EU these values were at most times higher than 5% , and, in many cases, equalled even over ten percent. In the second period the countries featured mainly a significant decrease of the average growth rate (in the case of Greece, Spain, Croatia and Cyprus even negative), whilst for several countries (Malta, Sweden and United Kingdom) the average growth rate was higher than before the worldwide crisis. It is worth to point out that two of these countries recorded a decrease of GDP per inhabitant both in 2008 and in 2009, after which the growth of this value began to speed up.

Performing the spatial analyses, the first item to be examined was the existence of spatial autocorrelation. Existence of this dependence implies spatial relations of the studied variable within certain area (Cliff & Ord, 1973; Kopczewska, 2011; Suchecki, 2010). Using Moran’s global statistics *I* it was studied whether the distribution of the value of GDP per capita is characterised by certain spatial models (possesses a tendency to cluster or distribute regularly), or has a random character³².

³² Moran’s statistic values greater than 0 indicate a positive autocorrelation, i.e. clustering within a given area of countries with similar values of the variable, negative values signify a moderately regular distribution of areas with high or low values of the feature (more or less they take the form of a chess board), while the value of the statistic close to 0 suggests an absence of spatial autocorrelation, that means a random distribution of the areas. The higher the absolute value of *I* statistics, the stronger the correlation.

Table 2: Values of Moran's I global statistics

Year	Moran's I statistic values	Year	Moran's I statistic values	Year	Moran's I statistic values
2000	0.605	2005	0.536	2010	0.492
2001	0.603	2006	0.505	2011	0.488
2002	0.585	2007	0.478	2012	0.493
2003	0.571	2008	0.467	2013	0.480
2004	0.560	2009	0.485	2014	0.473

Source: Own research

The values of the calculated statistics are positive and statistically significant. This indicates the existence of a positive spatial autocorrelation, i.e. the values of the studied variable tend to cluster – countries with similar values of GDP per capita neighbour. It can be noticed, however, that this relationship is weakening from year to year. What seems to be significant is that after 2008, that is just after the economic crisis, the relationship strengthened slightly and afterwards it remained on a close level. It may mean that worldwide problems keep up or strengthen the spatial relationships taking place, holding up, at the same time, the process of levelling the values of GDP per capita in EU countries.

Within the quantitative analyses we also defined Moran's local statistic. The values of this statistic provide information about the kind of neighbourhood a particular area is located in – whether it is surrounded by areas featuring similar or different values of the variable. The studies confirmed the tendency to form clusters of countries with similar levels of GDP per capita (dark colour). The results of the study for the selected years are illustrated in figure 3.

Figure 3: Clusters in 2000, 2009, 2014 respectively



Source: Own research

In year 2000 we can see three clusters: on the western side of Europe (of high values of GDP per capita), on the eastern coast of the Baltic Sea (of not very high levels of GDP per capita) and in the south-eastern part of Europe (of low values of GDP per capita). The rest of the areas (countries) cannot be clearly classified as their neighbourhood is more differentiated. A similar situation takes place in 2009 (also in 2004), although the clusters are smaller in number. In 2014 only two clusters emerged (without the Baltic cluster). The formation of a cluster signifies that within its area and in the majority of its neighbouring countries the studied phenomenon has similar values. The distribution of countries according to GDP per capita did not include any visible outliers i.e. none of the considered countries features such values of the studied variable which would, in a significant way, differ from the neighbours, there are then no 'lonely islands', which would positively or negatively stand out in relation to their neighbours.

With a fifteen-element time series, models of linear trend were constructed for each country on the base of which the forecasts for GDP per capita values for the year 2015 (data not yet

published) and 2016 were made. Table 3 illustrates the values of the forecasts together with the relative forecast error ex ante.

Table 3: Forecast (F) and relative forecast error ex ante (E)

Country	2015		2016		Country	2015		2016	
	F	E	F	E		F	E	F	E
Belgium	37522.9	2.06	38325.7	2.07	Luxembourg	91421.9	3.35	94065.5	3.33
Bulgaria	6667.6	4.78	7001.9	4.66	Hungary	11611.4	8.30	11957.9	8.25
Czech Rep.	17557.1	7.86	18239.3	7.74	Malta	18798.1	3.01	19349.5	2.99
Denmark	48247.6	2.81	49194.4	2.82	Netherlands	41724.8	3.64	42546.2	3.66
Germany	36221.9	1.87	36940.5	1.87	Austria	40143.8	1.78	41056.0	1.78
Estonia	16047.6	6.67	16816.9	6.51	Poland	11423.8	6.12	11883.5	6.02
Ireland	42034.3	10.21	42538.6	10.32	Portugal	17790.5	4.87	18085.1	4.90
Greece	19903.8	14.35	20163.5	14.49	Romania	8472.4	8.57	8923.1	8.33
Spain	24858.1	7.68	25309.5	7.72	Slovenia	19923.8	6.63	20453.5	6.61
France	33727.6	2.32	34309.4	2.34	Slovakia	15930.5	5.96	16740.1	5.80
Croatia	11945.7	8.99	12321.4	8.92	Finland	39606.7	3.28	40431.7	3.29
Italy	28268.6	4.29	28594.6	4.34	Sweden	45838.1	5.13	46909.5	5.13
Cyprus	24197.1	8.67	24664.3	8.70	UK	32514.3	8.43	32713.6	8.57
Latvia	12801.9	10.33	13418.0	10.08	EU (28)	28411.4	3.25	28952.9	3.26
Lithuania	13103.8	5.85	13756.0	5.70					

Source: Own research

A forecast is presumed admissible when the relative forecast error does not exceed 5%. Therefore, we can recognize as acceptable the forecasts for: Bulgaria, Denmark, Germany, France, Italy, Malta, Netherlands, Austria, Portugal, Finland and EU (28), while close to the level of admissibility are the forecasts for: Estonia, Lithuania, Poland, Slovenia, Slovakia and Sweden. It is predicted that, in all of the countries with an admissible forecast (or a close level of admissibility), an increase in the value of GDP will be taking place in the forthcoming two years. An increase is also predicted for the remaining countries, however, due to a poor quality of the forecast these should be handled carefully.

Despite the inadmissibility of part of the forecasts³³, a spatial analysis for year 2016 has been conducted, in order to study, at the same time, the trend of spatial relationships in the near future. Global statistics were still statistically significant, positive (0.459), but lower than the ones obtained for previous years, which confirms the observed falling trend. We can therefore expect that the weakening of spatial relations will still occur. Moreover, in year 2016 three clusters, small in number, emerge – western, north-western and south-eastern, which confirm the weakening trend of forming clusters.

³³ The ex ante errors did not, however, exceed in the vast majority 10.5% (with exception for Greece, for which the ex ante error determined on the level of 14.5%).

4. Conclusion

The values of GDP per capita ran similarly in years 2000-2009. The levels of the considered variable did differ from each other, but there existed a tendency to form clusters of countries with similar values of the variable. Such a tendency also existed in the second period considered, but the development of GDP per capita values was more differentiated. For part of the countries, independently of the fact if they came from the ‘old’ or the ‘new’ Union, after the fall deriving from the worldwide crisis, there was, again, a growing trend for the GDP per capita level, while for the other countries, it was a stagnation or even a falling trend – these were most often countries with unstable economic situation. Easy to explain is the fact that the rate of growth of the studied characteristic is positive over a stabilized period and that the countries striving to ‘catch up’ with the ones possessing a higher level of GDP feature a higher growth rate. It is also logical that after a certain turning point (a crisis) there follows a certain stagnation, a slowing down of the changes. In some countries of the EU (Malta, Sweden, United Kingdom) we could, however, observe a different rule – in the years following the crisis, the average growth rate was higher than before the crisis. Spatial analyses have shown an existing spatial relationship – a positive spatial autocorrelation, i.e. a tendency to form clusters of countries with similar values of GDP per capita; it could be seen, however, that practically from year to year this tendency decreased. Throughout the considered period of time we could clearly notice clusters in the western part of Europe, as well as in the north-eastern and south-eastern; no clusters appeared in the central area. According to the defined forecasts of GDP per capita values for the two forthcoming years, the growing trend is likely to maintain for the majority of EU countries and the spatial analysis conducted for the forecast values has proven a still statistically significant, positive, but weakening spatial autocorrelation (weakening of spatial relationships).

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THE FISCAL CONSTITUTION AS AN INSTITUTE OF PUBLIC FINANCES. THE CASE OF THE CZECH REPUBLIC AND ROMANIA

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Abstract: The condition of public finance deteriorated even in times of economic conjuncture, so the onset of the crisis in 2008 caught most of the developed world without financial reserves, or the so-called fiscal cushion. Thus most EU countries now fail to fulfill both the Maastricht Convergence Criteria and the Fiscal Compact Treaty, even if these are binding legal norms of the EU. Despite this, some EU countries voluntarily accepted a sort of financial debt cap, which the government of the Czech Republic accepted in February 2015 in the form of the so-called financial constitution, which contains a whole range of mechanisms at all levels of public budgets and public expenditures with a public debt in the amount of 55% of the GDP. The goal of this contribution is to analyze the content of the financial constitution, assess its structure and the aspects of its process application, and through selected public budgets also its possible influence on the whole economy. The content of the financial constitution shall also be compared to similar mechanisms in Romania.

Keywords: financial constitution, public budgets, public finance, deficit, GDP

JEL Classification: H60, H62, H63

1. Long-term sustainability of public finance

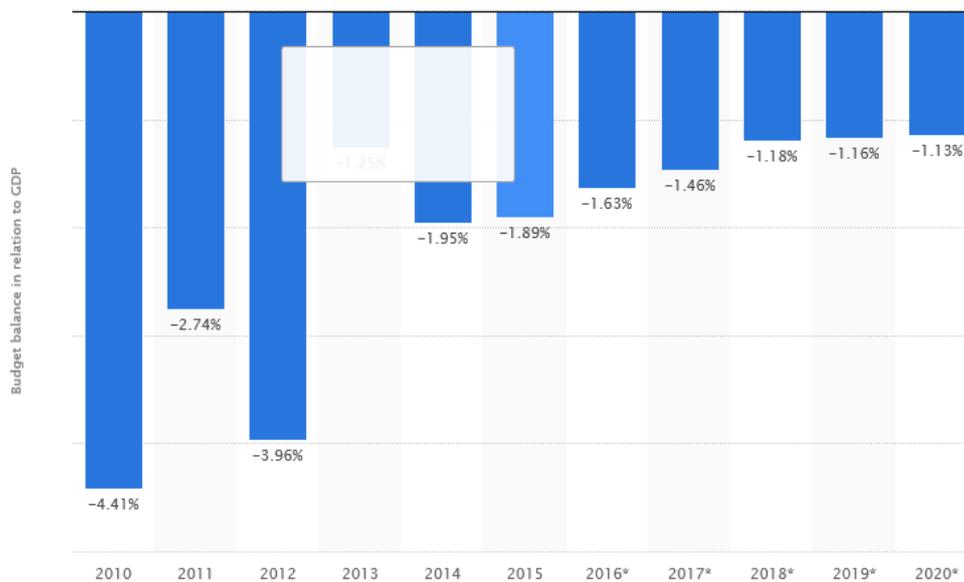
A great many developed economies within the EU annually suffer from chronically repeated deficit of public finance resulting in an increasing public debt (Barro, 2014). The costs related to servicing such debts have brought some countries to the verge of bankruptcy, and only international loans provided by the European Commission and the International Monetary Fund, or the use of resources of the European Stabilization Fund saved them from going bankrupt (Becker et al., 2005). The increase of public debt measured by its debt-to-GDP ratio also concerns the Czech Republic and Romania, even though in comparison to most EU countries these two countries show only a small debt.

The degree of sustainable fiscal convergence is assessed in compliance with the Maastricht Convergence Criteria. These include HICP inflation (price stability), government budget deficit (long-term sustainability of public finance), government debt-to-GDP ratio, exchange rate stability, and long-term interest rates (Pavelek, 2016). **The criterion of a long-term sustainability of public finance** means that the given country is not subject to the decision on an excessive budget deficit. The criterion has two parts (CNB, 2016):

- **The criterion of public deficit** means that the ratio of planned or real deficit of public finance to the gross domestic product in market prices shall not exceed 3% except those cases when the ratio has either dropped significantly or continued dropping to a level close to the reference value, or its having exceeded the reference value was only exceptional and temporary, and the ratio remains close to the reference value.
- **The criterion of public debt** means that the ratio of public debt in market prices to the gross domestic product shall not exceed 60% except those cases when the ratio is adequately decreasing and approaching the reference value.

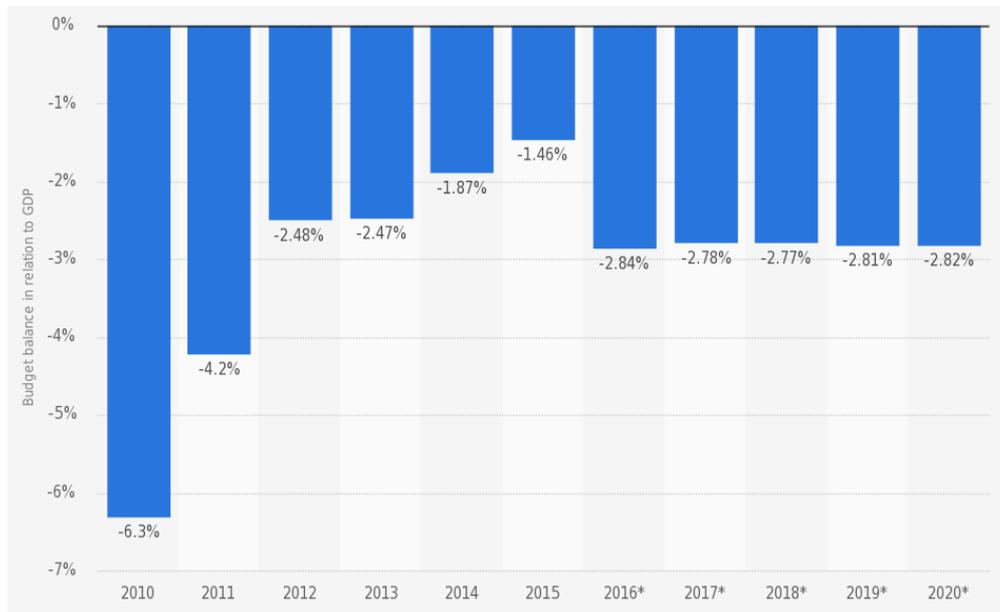
The criterion of the condition of public finance sets the conditions for maximum amount of the total deficit and debt of the government institutions sector (Krugman & Eggertsson, 2012). Failing to meet this criterion results for all member states of the EU in taking up the excessive deficit procedure (*Excessive Deficit Procedure, EDP*), in which the Czech Republic found itself between December 2009 and June 2014. To be more specific – the government's fiscal strategy approaches a deficit of 1.9% of the GDP in 2015, 1.6% in 2016 and 1.5% in 2017. The main risk for this development is the not yet stable situation in the eurozone and its possible impact on the economic development of the Czech Republic. Next graph shows Czech and Romania budget balance since 2010 with its forecast till 2020.

Figure 1: Czech budget balance 2010-2020 (forecast)



Source: Statista, 2016

Figure 2: Romania budget balance 2010-2020 (forecast)



Source: Statista, 2016

The so-called Fiscal Pact was accepted together with the Maastricht criteria in 2012, which is an intergovernmental treaty of 25 countries of the EU on a legally enforceable stricter budget discipline of the signatories. Its full name is the “Treaty on Stability, Coordination, and Governance in the Economic and Monetary Union”. The pact was meant to save the euro which suffers from an imbalanced combination of a united monetary policy controlled by the European Central Bank and independent fiscal (budget) policies which are controlled by individual countries (Lucas and Moll, 2014).

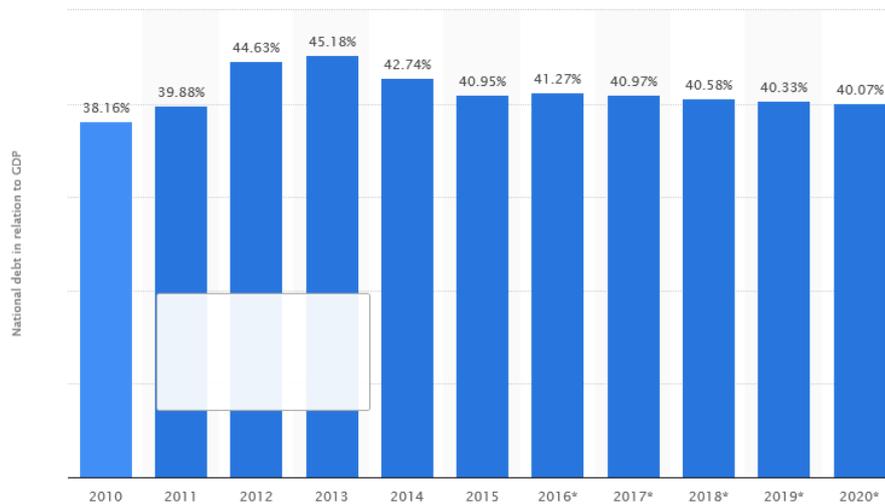
The main goal of the Fiscal Pact is the requirement for the annual structural deficit not to exceed 0.5% of the GDP. This rule, also referred to as the debt brake, shall be introduced into the national constitutions or laws (Barro, 2013). The following table shows the development and prediction of fulfillment of the criterion of long-term sustainability of public finance in the Czech Republic and Romania as well as graphs shows the current situation in national debt in last 10 years in both countries:

Table 1: Fulfillment of the criterion of long-term sustainability of public finance in the Czech Republic and Romania 2011 – 2017

	2011	2012	2013	2014	2015	2016	2017
Balance of the sector of government institutions							
Value of criterion	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Czech Republic	-2.9	-4.0	-1.3	-1.5	-1.9	-1.6	-1.5
Romania	-3.0	-2.1	-1.2	-0.7	-1.5	-2.8	-2.8
Debt of the sector of government institutions							
Value of criterion	60.0	60.0	60.0	60.0	60.0	60.0	60.0
Czech Republic	41.0	45.5	45.7	43.8	40.9	41.3	40.9
Romania	34.2	37.4	38.0	39.8	40.9	41.5	42.2

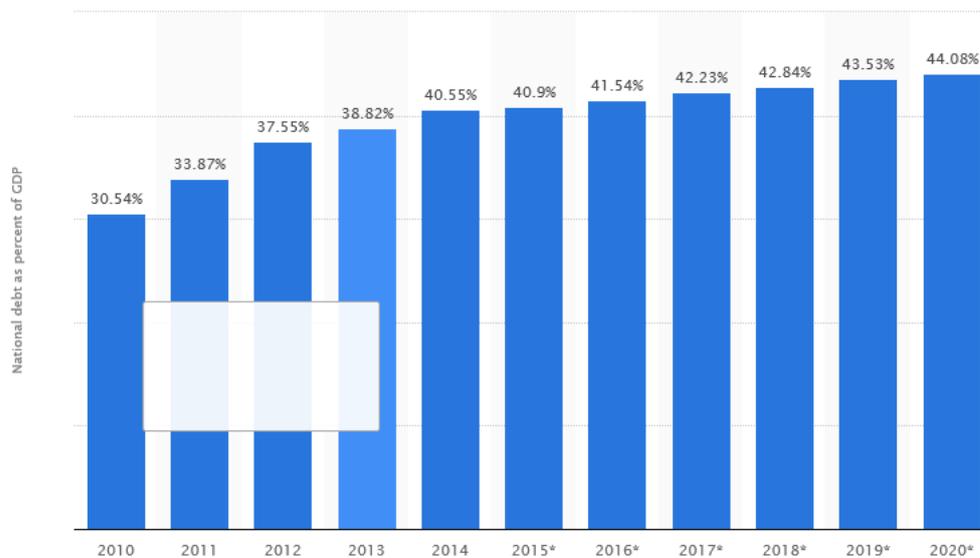
Source: ČSÚ, 2016

Figure 3: Czech national debt in relation to GDP 2010-2020 (forecast)



Source: Statista, 2016

Figure 4: Romania national debt in relation to GDP 2010-2020 (forecast)



Source: Statista, 2016

2. Proposal of Financial Constitution

The concept of financial constitution is by no means something completely new (Lucas, 2003). From the viewpoint of practical fiscal measures at all levels of public budgets, the most important is § 13 of the bill. On reaching a debt of at least 55% of the nominal GDP in compliance with Article 4 of the Constitution Act on Budget Responsibility dealing with the way how public institutions should proceed while enforcing these measures (Rysavy, 2015):

- The government shall pass and submit to the Chamber of Deputies a proposal for a medium-term outlook of the state budget and state funds' budgets; in case the state budget bill or state fund budget bill are submitted without fulfilling this condition, the government shall withdraw such a bill and immediately submit a new one,

- A local government unit (LGU) shall pass their budget for the coming year as balanced or surplus budget; the budget of an LGU can only be passed as a deficit one if it is possible to pay the deficit using financial means from the previous years or using a returnable financial aid. Using a contractually secured loan, credit or revenue from selling municipal bonds of the LGU is only possible to pay a deficit arising from pre-financing projects co-financed from the EU budget,
- Public institutions which were not mentioned above must not, for a period during which the debt represents at least 55% of the GDP, establish new contractual commitments except commitments regarding projects co-financed from the EU budget or commitments necessary to fulfill a court verdict or a public authority decision.

3. Debt Brake for Municipalities and Regions

With special emphasis, the Act on Budget Responsibility deals with the economy of local government units, stipulating their basic form in § 19 of this act:

- Shall the debt of a local government unit exceed 60% of its average income in the previous 4 budget years as of the balance date, such a local government unit shall be obliged to decrease this debt in the next calendar year by at least 5% of the difference between its debt and 60% of its revenue in the previous 4 budget years,
- Shall the local government unit not decrease its debt, and its debt as of the next balance date exceeds 60% of its average revenues in the previous 4 budget years, the Treasury shall in the next calendar year decide in compliance with the Act on Budgetary Rules and Changes on suspending the transfer of its share in tax revenue,
- The revenues of local government units for the purpose of this act are understood to be the sum of all monetary payments accepted into the budget in the given fiscal year, consolidated in compliance with a different regulation,
- A debt of a local government unit for the purpose of this act is understood to be the value of unpaid obligations ensuing from issued bonds, accepted credits, loans and returnable financial aids.

4. Mechanisms of the Debt Brake in Selected Countries

Certain forms of the debt brake are implemented in most countries of the EU (Rogoff et al., 2012). They were mostly accepted as prevention against a country's falling into a debt spiral, using a loan to pay off another, and thus facing the imminent risk of government bankruptcy, which some southern countries of the EU have in fact been through (Reinhart & Rogoff, 2010).

Romania

The government plans a deterioration of the headline balance from -0.7% in 2015 to -2.9 % of GDP in 2016 and 2017. The structural balance is expected to deteriorate as well. The programme plans to depart from the medium-term budgetary objective - a structural deficit of 1 % of GDP - which had been achieved in 2014 and 2015 and does not plan to return to it within the programme period. According to the convergence programme, the government debt to-GDP ratio is expected to remain below 40% over the programme horizon. The macroeconomic scenario underpinning these budgetary projections is plausible for 2016 and slightly favorable for 2017. Based on the Commission 2016 spring forecast, there is a risk of a significant deviation both in 2016 and, under unchanged policies, 2017. In addition, the Commission 2016

spring forecast projects a general government deficit of 3.4% of GDP for 2017, above the 3% of GDP reference value of the Treaty.

In 2015, the requirement to include a Ministry of Finance-verified impact assessment for new legislative initiatives that increase public spending or reduce public revenues, to respect expenditure ceilings, and to propose compensatory measures for revenue reductions was breached. In practice, the Fiscal Council is given very little time to react to budgetary proposals and its opinions and recommendations are not sufficiently taken into account. The 2016 Budget Law targets a fiscal deficit of 2.95 % of GDP, leading to a significant deviation from the medium-term objective. This is a departure from the national fiscal framework.

The Romanian government set the limit of the deviation from the medium-term budgetary objective in 2016 and achieve an annual fiscal adjustment of 0.5 % of GDP in 2017 unless the medium-term budgetary objective is respected with a lower effort. Ensure the application of the fiscal framework and strengthen further tax compliance and collection. Ensure that legislative initiatives do not undermine legal certainty and do not put at risk financial stability. If necessary, adopt measures that mitigate such risks.

Switzerland

The Swiss debt brake is a rule which restricts expenditures in order not to exceed the volume of structurally modified budget revenues. It means that expenditures must respect revenues, but not in the strict sense of annual balance. The Swiss federal budget may be adopted even with a deficit.

However, expenditures must respect the trend of revenue development (Stiglitz, 2015). Expenditures of the federal government have a cap which is calculated as the function of budget revenues and the current position of the economy in the course of the economic cycle according to the following simple formula:

$$\text{Expenditures} = \text{Revenues} * K \tag{1}$$

where

$$K = Z / Y, \tag{2}$$

Z = trend of the gross domestic product,

Y = current value of the gross domestic product.

Thus if coefficient K is greater than 1, it means that the economy is below its potential, thus it is possible to allow expenditures greater than revenues. On the contrary, if the economy is “overheated” and $K < 1$, a surplus budget is required.

The goal is to keep the total expenditures of the federal government relatively independent of the economic cycle, thus the growth of expenditures reflected the trend, long-term growth of the economy. Tax revenues shall fluctuate depending on the economic cycle, which means that it is not necessary to raise taxes in the period of recession and thus deepen it. On the contrary, it helps balance recessions in the spirit of Keynes' teaching. However, shall the government follow the traditional orthodox policy of balanced budgets in every budget year, the debt brake will not rule this policy out (Stiglitz, 2016).

We need to note that the Swiss federal budget does not distinguish standard and investment expenditures in terms of the total expenditure cap. Any kind of investment in infrastructure

regardless of future usefulness does not have to be better than standard expenditures on salaries or the running of the country (Geier, 2011).

The Swiss debt brake was first applied relatively recently – as late as 2003. While being used, it succeeded to decrease the growth of public expenditures from an average 4.3% to 2.6%, and the total Swiss state debt decreased from 53% of the GDP to 36.5% of the GDP (Kohout, 2015).

5. Conclusion

The institute of debt brake, or the fiscal constitution, has been adopted by the individual countries of EU voluntarily, since the condition of public budgets of most countries of the EU is not sustainable in the long run, and the need for fiscal correlation toward public debts is clear and objective, and is the subject of societal consensus.

The financial constitution of the Czech Republic respects the limit for long-term sustainability of public finance, mainly the limit of the state debt in the amount of 60% of the GDP. Thus it takes effect with the public debt reaching 55% of the GDP in order to have enough time to adjust the development of public budgets and public finance. The financial constitution also concerns basically all levels of public budgets, not only the state budget, but also the budgets of local governments, i.e. budget of local government units, even if those periodically show better fiscal condition than the state budget.

An inseparable question while discussing the concept of fiscal constitution are also wider issues of the macro-economic development. This concerns not only the nominal amount of deficits and the public debt, but their relative relation in respect to the GDP (Summers, 2000). It is namely this economic recovery and the growth of the GDP which lead to a better tax revenue of the state, a more favorable debt service, a smaller demand for public budgets, lower unemployment, and other positive impacts on the economy of the civil service and local governments.

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SYSTEM OF TARIFF PREFERENCES OF THE EUROPEAN UNION: SPECIFICS, PROBLEMS AND PROSPECTS OF DEVELOPMENT

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Abstract. Tariff preferences are one of the key aspects of the process of economic integration and the agent of the world economy globalization as well as of international trade liberalization. They allow to reduce or abolish the institutional barriers in foreign commerce, both inside and outside integration associations. Currently, the tariff preferences system of the European Union is one of the most effective and advanced models of preferential import in international trade. The process of its development is inextricably connected with the stages of the European integration. Within the EU a few preferential schemes based on multilateral and plurilateral agreements are applied, and the principles of tariff modulation, country and industry-specific gradation are employed with consideration for the socioeconomic specificity of the recipient countries. The new political and economic realities require revision and adjustment of the EU system of tariff preferences to the changing institutional environment and the increasing role of European supranational institutions in the foreign trade policy. The European system of preferences must be developed and improved in accordance with the principles of international law and, the WTO, the WCO and specialized UNO committees. All these measures may help increase effectiveness of tariff preferences thanks to clear articulation of basic principles for granting preferences under international law.

Keywords: tariff preferences, tariff modulation, the country grade, industrial grade, preferential risk.

JEL Classification: F02, F15, F19, F29

1. Introduction

The EU's preferential tariff system is one of the best-known and well-developed preferential import models in the international trade. Its development is closely connected with the stages of the EU economic integration, i.e. transformation of national models into the common scheme as the EU expands and the number of the EU members increases.

Currently, the EU uses multischematic model of preferential access of imports to the common market of the integration association based on unilateral, bilateral and plurilateral agreements between the European Union and some countries, group of countries and regional associations. The Generalized System of Preferences has a special place in the European system of trade preferences.

The Generalized System of Preferences was created following UNCTAD recommendations in order to make it easier for the developing countries to export their products to the European Union. Through the additional export revenue which is generated, the GSP fosters economic growth and job creation in the beneficiary countries.

The GSP is a specific instrument focusing on a single dimension only: preferences for trade in goods. It does not have the ambition or the possibility to tackle other problems faced by developing countries.

The GSP is subject to WTO law, in particular to the GATT and the so-called "Enabling Clause" which allows for an exception to the WTO "most-favoured nation" principle by granting special treatment to developing and least developed countries (LDCs)

As the needs of developing countries vary widely a differentiated approach has been taken in the GSP, providing a sliding scale of preferences according to different needs and level of development. At present, the GSP provides three main types of preferential access to the Common European market for the goods from beneficiaries (Brenton, 2003). The preferences vary according to economic development, imports, and "sensitive" products, i.e. under the current scheme the principles of tariff modulation, country and sector graduation are applied.

2. Problems of the European system of trade preferences

2.1. Preference erosion for the LDCs

Economic development and poverty reduction are complex problems, which require a lot of mechanisms and tools to be solved. The Generalized Scheme of Preferences of the European Union is one of those many tools. While, on its own, the scheme will not reduce poverty, it can help developing countries boost exports and develop new industries. This explains why the GSP has remained an important policy tool, whose objective is the expansion of exports to the EU by beneficiary countries in accordance with their needs.

The EU's scheme of preferences has to be adapted to changing world economic and political realities. The need to change the instruments of the GSP was caused by institutional changes. The signing of the Lisbon Treaty became the starting point of the process. The treaty enhanced the role of supranational bodies of the EU in foreign trade policy and, in particular in preferential access of goods to the markets of member-states. The last decade has seen the emergence of more advanced developing countries that are competitive in the world market. These countries are traditionally differentiated as developing which make them eligible for preferential imports (Portela & Orbie, 2014).

In fact, these countries no longer need preferences as they are successfully integrated into the world trade. However, they still enjoy the preferences thus making competitive pressure greater for the imports from the least developed countries. Largely thanks to dynamic export, some developing countries have grown so significantly, that their per capita income levels are similar or higher than the incomes of certain developed countries.

In terms of the World Bank per capita income classification, which is an objective and internationally recognized measure, they have become high or upper middle income economies. They clearly no longer need preferences to successfully trade with the rest of the world – and they have the resources to tackle more complex development problems such as income distribution, which require adequate internal policies. In other words the main goal of the GSP, i.e. trade preferences for developing and least developed countries, has been fully achieved.

The GSP preferences increase the competitive advantage of more advanced developing countries at the cost of exports from the least developed countries and low-income economies. In fact, 40% of preferential exports are absorbed by more advanced countries (UNCTAD, 2015). This explains the disappointing performance of the poorest. Hence, it is necessary to concentrate preferences on those countries that most need them.

Today, under the GSP tariff reduction for preferential imports from developing countries is 3.5 percentage points on ad valorem duties, and LDCs enjoy zero duties. This graduation of tariff rates does not take into account the “most-favoured nation” regime, i.e. the “true preferences” principle, which is used to reflect the real level of preferences and their effectiveness for the beneficiary countries, is ignored (Emily & Shushanik, 2015).

The situation is becoming even more complicated as tariffs continue to drop as a result of multilateral and bilateral trade liberalization between the EU countries and their partners. With tariff levels falling, preferences also diminish – a process called “preference erosion”. The more advanced countries can compete effectively with low or no preferences but the poorer, if they are to successfully join the path of export-led growth and development, will need to exploit the diminishing preferences to the full (Wusheng & Trine, 2005).

Moreover, multilateral trade liberalization can lead to dualization which means the list of beneficiary countries contains countries and territories which already have other preferential channels to enter the EU. As those preferential channels are typically better than the GSP, it is no wonder that they use the GSP only marginally (Fisher, 2006). This situation can lead to confrontation between the EU countries and the countries associated with the EU within the framework of free trade agreements.

The application of the sector graduation principle within the GSP requires close control of the competitiveness of some industries of the beneficiary countries. As a result, some developing countries still have low per capita income but have extremely successful export sectors for many industries (Bartels & Haerberli, 2010). These industries (for instance, textiles, chemicals, leather products) are competitive worldwide at the highest level. They also do not need preferences to successfully penetrate world markets.

2.2. Preferential risks

Tariff preferences granted by the EU imply different preferential risks which can undermine national systems of preferences and thus need to be monitored and eliminated. Preferential risks are caused by many factors, among them objective factors, which are connected with the

uncertainty of external environment, and subjective factors, i.e. decisions made by importers and exporters.

High preferential risk is closely related to customs control and identification of the country of origin. Identification of the country of origin is an essential element for granting tariff preferences and determination of their level. This is a key aspect in import duty preferential rate variation.

Violations of preferential rules of origin are possible even in the effective and well-equipped customs control system. The situation is becoming even more complicated as in the foreign trade direct supplies are used along with supplies of the goods that are not originally produced in a beneficiary country but are processed at the extent that gives the right to a preferential import (Manchin, 2006).

These implications have been reflected in the principle of “sufficient working or processing” which made it difficult to identify the country of origin of the imported product. According to the principle a product is considered to be sufficiently worked or processed in a beneficiary country if:

1. The product is worked or processed in a beneficiary country and the cost of raw materials, semi-finished and finished products from non-GSP countries used or the cost of the products with unknown origin does not exceed 50 % of the cost of the product exported by a beneficiary country.
2. The product is worked or processed in several beneficiary countries and the cost of the products from non-GSP countries used or the cost of the products with unknown origin does not exceed 50 % of the cost of the product exported by one of the beneficiary countries.
3. The product is manufactured in one of the beneficiary countries and is worked or processed in another, one or several beneficiary countries (UNCTAD, 2012).

The drive to get more profit led international trade players to find shortcomings of the above-mentioned principles and to enter the market of GSP-covered imports.

Globalization and a growing trend among companies to transfer their business to the countries with relatively low salaries and to cut down production costs made it possible for these companies not only to benefit from natural economic advantages but also to enjoy the right to import the goods from the beneficiary countries.

For instance, thanks to free trade agreements with the countries which can export their products in the GSP countries, a non-GSP country can import to a beneficiary country components and semi-finished products that after being worked or processed in a beneficiary country will be exported with tariff preferences to the countries which do not have free trade agreements (Stiglitz & Charlton, 2005).

A special case is that of transnational companies which locate their production facilities in a beneficiary country and then export their high-quality and competitive goods using preferential regimes. Therefore, if two or more countries take part in the production of goods, the country of origin of goods shall be the country where the goods underwent final operations in processing or production meeting the criteria for sufficient processing. They are as follows:

1. The product is considered as originating in a given country if the operations on processing or manufacturing of goods result in a change in the classification code of the

goods at the level of any of the first four digits according to the Commodity Nomenclature of the Foreign Economic Activities.

2. Fulfillment of certain production or technological operations sufficient for regarding the country where such operations took place as the country of origin.
3. Change in the value of goods such that the percentage ratio of the cost of the materials used or of the added value reaches a fixed share of the price of the finished product (rule of ad valorem ratio).

The information must be confirmed by certificates of origin of goods but often the degree of protection leaves much to be desired thus making it possible to obtain a certificate illegally. In practice, when exercising customs control in order to check if the product is eligible for preferential regime there are frequent discrepancies between the data specified in the certificate with the data specified on the goods and/or packaging of the goods registered in the customs surveyor report(UNCTAD, 2014).

Besides, there is a growing number of cases of deliberate misrepresentation of the data when declaring goods in order to get tariff preferences for the goods that are not GSP-covered. Therefore, there is a need for developing effective method for search and identification of:

1. “Risk” goods (the goods that are moved across customs border and present a real or potential risk);
2. “Cover” goods (the goods that are moved across customs border and are likely to be declared instead of risk goods) .

3. Prospects of development of tariff preferences system of the EU

3.1. Graduation of the product sections and the countries

With tensions in the international relations and declines in GDP, the European Union must focus on public spending optimization. The improved mechanism for identification of beneficiary countries, which takes into account their level of economic development, can contribute to the growth of additional revenues to the EU’s budget.

In this respect, it would be useful to change the GSP beneficiary list by using the country graduation mechanism. With improvements to the GSP graduation mechanism, it would be easier for the LDCs to sell their goods thanks to reduced competition among beneficiaries that would be consistent with the goals of the GSP. In this case, the preferences would be concentrated on the countries that most need them.

A key point is that even marginal drops in exports by the more advanced, bigger economies, can potentially provide significant opportunities for the poorest, whose exports are very small in comparison. For instance, a drop of 1% in Brazilian exports is equivalent to more than 16 times Burkina Faso’s total exports to the EU (UNCTAD, 2013).

It is expected that the negative effect from the graduation of the more advanced developing countries from the GSP beneficiary list will be minimal. The reason is that for more advanced developing countries, exports under the GSP are not necessarily a significant proportion out of total exports to the EU (the average is 8%), and the rates of non-preferential customs duties applied by the EU to the imports are relatively low.

The focus on the LDCs is natural as existing EU preference programs can help the economies only at the local level and ignore the need for far-reaching reforms.

In addition to the country graduation, development and implementation of the sector graduation can increase the effectiveness of the GSP. It is necessary to develop and detail the criteria used to identify the level of competitiveness of the goods and the criteria used to include or exclude the goods from the GSP list. If the competitiveness of the product corresponds to a certain level some additional “non-preferential” measures can be applied such as graduation thresholds (namely the trigger level of import of the product from a beneficiary country as a proportion out of the imports of similar goods in terms of value based on GDP) (McKenzie, 2008).

The new GSP maintains the core principles but corrects three elements:

1. Product sections used for graduation are to be expanded from 21 to 32. This ensures that graduation is more objective, as the products in the categories are more homogenous. This avoids that graduation “overshoots”, removing preferences for some products which are not competitive simply because they are in a section which includes other very competitive products from a different industry.
2. Graduation thresholds are to be increased from 15 % to 17.5 % (and from 12.5% to 14.5% for textiles). As the number of beneficiaries drop, graduation will happen sooner. This is an intended effect, as our current mechanism “undershoots”, failing to identify many sectors which are competitive and thus need no preferences. However, an increase in the thresholds was necessary to keep this increase in graduation to the minimum level necessary.
3. Graduation no longer applies to GSP+ countries. Like EBA countries, GSP+ countries are vulnerable and display a non-diversified export base. Given that graduation has never applied to EBA, it was only fair to treat GSP+ countries in the same fashion. This should also make GSP+ more attractive to potential applicants (Wardhaugh, 2013).

On the whole, revamped graduation is expected to remove preferences from sectors that no longer need them – and provide opportunity to those most in need of the help.

The EU could also enhance its fiscal efficiency by temporary withdrawals of the most vulnerable product groups from the GSP. It would be consistent with the policy of protection of domestic producers and economic security of the country.

In particular, it is necessary to use more effectively preferential rates graduation within a national system of preferences and to impose tariff quotas depending on the “vulnerability” of a product in terms of national output.

The “vulnerability criterion”, i.e. competitiveness of a domestic product in relation to the imported analogue can be used to overcome “stagnation” of the GSP preference rates by means of tariff modulation for product groups differentiated by their vulnerability to preferential imports (Irish, 2007).

Granting of so-called true preferences requires fundamental changes in tariff policy aimed at variation of preferential rates. The existing mechanism of determination of a preferential rate is ineffective. Within the system of preferences it is necessary to determine the level of preferential rates taking into account products subject to the Most Favored Nation (MFN) tariff rate. This approach can avoid “erosion of preferences”, i.e. the situation when a preferential rate is either equal or exceeds import customs duty under the MFN regime thus minimizing or neutralizing the effectiveness of preferences for developing and least developed countries (Olesti Rayo, 2010).

The EU should keep coordinating customs and tariff policies within the integration group in order to eliminate the dualization of preferences. Minimization of dualization in the national system of preferences and detailed criteria of the country graduation can help concentrate preferences on those countries that most need them and make external economic policy more efficient.

3.2. Reducing of the preferential risks

Improvement of the preferential risks management system must become one of the key elements in the activities of the EU aimed at better system of tariff preferences and in particular risk management related to identification of the country of origin. This system must meet the criteria of the quality of customs administration in accordance with the World Customs Organization (for instance, reducing the time period for identification of the country of origin).

One of the solutions of the problem is withdrawal from the preferential regime of the goods containing raw materials and components without documentary confirmation of the country of origin. To avoid the risks of “substitution” of preferential goods by non-preferential goods it is necessary to develop methods for search and identification of the so-called risk goods and cover goods within the national system of preferences. For this purpose, the mirror statistics method can be used (a comparison of the data on the preferential import of the EU of a certain product and the data provided by the beneficiary countries on the export of the same product to the EU) (UNCTAD, 2013). Such a comparison of statistical data can help detect violations of customs rules.

Importers and exporters need stability and predictability to use GSP preferences. Thus, the following measures are to be taken:

- The scheme must last ten years instead of three, as it is the case now.
- A transition period of at least one year for changes in the original set of beneficiaries list. This provides opportunity for beneficiaries to adapt to new conditions of access to the EU market.
- Removals from the beneficiary lists will happen only if countries are listed as high or upper-middle income three years in a row.
- The procedures which affect beneficiaries must be more detailed and transparent.
- The legal texts and rules of the new GSP must be published more than one year in advance. This provides ample time for beneficiaries to adapt.

Certainly, large-scale changes in the system of tariff preferences cannot be done immediately. However, the EU can use its own long experience and learn from the other countries to update the GSP and increase its effectiveness given new geo-political and geo-economic realities.

4. Conclusion

With globalization and regionalization that confront each other in the world trade and the past financial crisis, the contradictions between some countries and integration associations become even greater. Moreover, confrontation between members of some integration associations is growing which may lead to disintegration as evidenced by the current situation in the Eurozone. As a result, the volumes of international and interregional trade have decreased.

Tariff preferences contribute to the growth of revenues from export and industrialization of the beneficiary countries, support the economic development of developing and least developed countries, and accelerate their economic growth rates thus strengthening the position of developing and least developed countries in the international arena.

At the same time, the countries that grant preferences benefit as well: they protect their labour markets from labour inflows from the third countries thus minimizing social tension, they get access to cheap components and raw materials, and reduce tax burden for consumers. All these facts confirm that preferences, as an instrument of customs and tariff policies, are mutually beneficial.

The European system of preferences must be developed and improved in accordance with the principles of international law and, the WTO, the WCO and specialized UNO committees. All these measures may help increase effectiveness of tariff preferences thanks to clear articulation of basic principles for granting preferences under international law.

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THE SELECTED METHOD OF ASSESSING THE IMPACT OF GLOBALIZATION ON THE ECONOMIC GROWTH OF COUNTRIES AND THE WELFARE OF ITS CITIZENS

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Abstract. Globalization has both positive and negative effects. One of the positive effects of globalization is to ensure economic growth by increasing the ability of a society to produce goods and services to meet human needs, as well as by promoting efficiency and productivity and to create favourable conditions for foreign investment. Generally accepted measure of economic growth is the growth of real gross domestic product GDP. Benefit from economic growth and economic development is the improvement of the living standard, better social situation and greater public safety. In this paper we present the different measures of economic growth and the measures that affect the welfare of the country. The basic measure is the gross domestic product growth, but it alone does not guarantee an increase in living standards and social welfare. Therefore, a more effective measure of the benefits of economic growth describing more accurately its dimension is GDP per capita. However, some thinks that the GDP per capita is inaccurate indicator of welfare in the country. Therefore, in this paper we present the other selected indicators that are: the Human Development Index (HDI) and a measure of Net Economic Welfare (NEW). To assess the impact of globalization on economic growth and welfare of its citizens in this paper we measure the acceleration of growth and welfare in the countries of the Group of Seven and Russia (until 2014 Group of Eight), BRICS (Russia, China, Brazil, India, South Africa), in the European Union and in countries of the Visegrad Group.

Keywords: globalization, acceleration of growth, indicators of economic growth,

JEL Classification: F62, F63, C22, O44, P46

1. Introduction

Zhang (Spring 2016) discusses the economic globalization and interregional agglomeration in a multi-country and multi-regional neoclassical growth model. The globalization has positive and negative implications (see Ágh, 2000; Heshmati, 2007; Giddens & Szulżycka, 2004). Therefore, in order to skillfully use all the positive aspects of globalization and minimize the risks associated with it, at the beginning of this article we present the effects of globalization. One effect of globalization is economic growth (see: Morita et al., 2015, Rehman, 2015, Saccone & Valli, 2015 December; Taneja, 2012). The aim of this article is the assessment of the impact of globalization on economic growth. Therefore, in the next section we present the positive aspects of globalization, that is economic growth and we present selected measures of economic growth. First of all, we note that the benefit of economic growth and economic development is the improvement of the standard of living, the better social situation and greater

public safety (see also Sand et al., 2016 September). Furthermore, considering the optimal monetary policy transmission horizon (Przybylska-Mazur, 2013), we can predict that in the considered time horizon will be economic growth

Section 4 contain outline of the method used to evaluate the economic growth acceleration. Section 5 contains the results of empirical analyses. We indicate periods when the growth is rapid, the periods when the growth accelerates and also the periods when post-growth output exceeds pre-episode peak. We analyse the major advanced economies as reported by the International Monetary Fund and richest countries in the world: the countries of the Group of Seven and Russia (until 2014 Group of Eight), China, Brazil, India, Mexico, South Africa. We analyse also the European Union and in countries of the Visegrad Group V4: Poland, Slovakia, the Czech Republic and Hungary. Final remarks and conclusions contains a conclusion.

2. Positive and negative effects of globalization

As globalization entails positive and negative effects, therefore it is important skilful use of all the positive aspects of globalization and minimize the risks associated with it. Therefore, at the beginning we present the positive and negative effects of globalization.

The positive effects of globalization are first of all:

- creation of opportunities for the growth of living standards across the world;
- increase of access to capital and new technology;
- promotion of the efficiency and productivity and the creation of favourable conditions for foreign investment that ensure sustainable economic growth;
- creation of new human and international relations;
- civilizational development of the world and the removal of barriers between nations,
- ensuring the general welfare due to increased international specialization;
- better division of labour between countries and better use of resources and financial capital.

The dangers posed by globalization are:

- Gradual loss of government influence on the economy and social policy, which is caused by deterioration of standards of welfare resulting from the limitation of the scope of social benefits and the reduced role of the state in the realization of national development goals;
- Collapse of traditional values;
- Creation major differences in levels of development of countries rich and poor;
- Increase in social and economic disparities of the country;
- Increase in the risk of instability of individual countries' economies due to sudden decisions of foreign investors because of opening of the economies;
- Loss of control over capital flows;
- Contribute to financial crises in many countries.

3. Economic growth as a positive aspect of globalization

In this paper we expose one of the positive aspects of globalization, which is economic growth, because the benefit of economic growth and economic development is primarily an

increase in the standard of living and better social situation (see: Gozgor, 2015, April 03; Saccone & Valli, 2015 Winter).

Thanks to economic growth the ability of a society to produce goods and services satisfying human needs increases. The economic growth can be regarded as process of increasing resources, consumer goods and services, as an increase in the amount of consumer goods and services per capita of the country. Benefit from economic growth and economic development is to improve the standard of living, better social situation and greater public safety.

We assume often that real GDP in constant prices is an appropriate measure of changes in production in time, namely economic growth, because it changes only through the change of size of domestic production, and not through the change in prices - inflation or deflation. However, GDP growth alone does not guarantee an increase in living standards and social welfare. Therefore, a more effective measure of the benefits of economic growth more accurately describing its size is GDP per capita. To assess the welfare of society can also be used: the Human Development Index (HDI) and the Net Economic Welfare (NEW). The Human Development Index (HDI) was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone. HDI is a measure of average achievement in three dimensions of human development: a long and healthy life, being knowledgeable and a decent standard of living. Net Economic Welfare is a measure that takes into account the costs of pollution, crime, congestion and other 'negative' spinoffs, in order to find a better measure of true national income. The Net Economic Welfare is a measure of total national output, including only the consumption and investment items that contribute directly to economic well-being. It includes also the value of leisure and the underground economy, and deductions such as environmental damage.

This article aims is the assessment of the impact of globalization on economic growth by measuring the growth acceleration. The problem of acceleration growth is discussed by many authors (see: (Gupta et al., 2005). The other methods and model of economic growth is presented by Hanousek et al. (2008) and by Whelan (2004 October).

Below we present briefly the method of measuring the growth acceleration.

4. Growth Accelerations

The approach of Hausmann and others (2005) is employed to identify growth accelerations. Average growth rate at time i over horizon n is estimated from the following regression (Fiscal Policy...):

$$\ln(y_t) = \alpha + g_{i,i+n-1} \cdot t + \varepsilon_t \text{ for } t = i, i+1, \dots, i+n-1 \quad (1)$$

where

$i = 1, 2, \dots, T-n+1$ is the starting time period for the regression,

T is the total sample size,

y_t is the measure of economic growth,

ε_t is the disturbance term.

We interpret the term $g_{i,i+n-1}$ as the average annual growth rate over horizon n , between periods i and $i+n-1$

The change in the growth rate at time i is the change in the growth over horizon n across that period. We define it as:

$$\Delta \hat{g}_i = \hat{g}_{i,i+n-1} - \hat{g}_{i-n+1,i} \text{ for } i = n, n+1, \dots, T-n+1 \quad (2)$$

where $\hat{g}_{i,i+n-1}, \hat{g}_{i-n+1,i}$ are least squares estimates of the growth rate.

We identify growth accelerations by looking for rapid growth episodes that satisfy the following three conditions:

1. $\hat{g}_{i,i+n-1} \geq 3,5\%$ Then the growth is rapid
2. $\Delta \hat{g}_i \geq 2\%$ Then the growth accelerates
3. $y_{i+n-1} \geq \max_{j \leq i} \{y_j\}$ Then post-growth output exceeds pre-episode peak

5. Empirical Analysis

To determine the periods in which economic growth is rapid, economic growth accelerates and the years in which the post-growth output exceeds pre-episode peak for analysis we take into account annual data on GDP in constant prices, and annual data of GDP per capita from the period 1995-2015. The study included the most influential and richest countries in the world: the countries of the G7 Group (France, Japan, Germany, United States, United Kingdom, Italy, Canada), Russia, China, Brazil, India, Mexico, South Africa (countries of BRICS), the European Union and countries of Visegrad Group (Poland, Slovakia, Czech Republic, Hungary). We take as the horizon of analysis $n=5$.

In this paper we take the following symbol of the countries: FRA (France), JPN (Japan), DEU (Germany), USA (United States), GBR (United Kingdom), ITA (Italy), CAN (Canada), RUS (Russian Federation) CHIN (China), BRA (Brazil), IND (India), ZAF (South Africa), EUU (European Union), POL (Poland), SVK (Slovakia), CZE (Czech Republic) and HUN (Hungary).

Table 1a: GDP growth in constant prices in the horizon of five years - the countries of G7 that fulfill the conditions.

Period	Country						
	FRA	JPN	DEU	USA	GBR	ITA	CAN
1999-2003	3)	3)	3)	3)	3)	3)	3)
2000-2004	3)	3)	3)	3)	3)	3)	3)
2001-2005	3)	3)	3)	3)	3)	3)	3)
2002-2006	3)	3)	3)	3)	3)	3)	3)
2003-2007	3)	3)	3)	3)	3)	3)	3)
2004-2008	3)	3)	3)	3)	3)	3)	3)
2005-2009	3)	-	3)	3)	3)	-	3)
2006-2010	3)	3)	3)	3)	-	-	3)
2007-2011	3)	-	3)	3)	-	-	3)
2008-2012	3)	-	3)	3)	-	-	3)
2009-2013	3)		3)	3)	3)	-	3)
2010-2014	3)		3)	3)	3)	-	3)
2011-2015	3)		3)	3)	3)	-	3)

“-“ means that none of the conditions is not satisfied

Source: Own calculations

Using as a measure of growth - GDP in constant prices in Table 1a we present periods in which the countries of the G7 satisfy the conditions:

- 1) the growth is rapid,
- 2) the growth accelerates and

3) post-growth output exceeds pre-episode peak.

Table 1b shows similar results for countries belonging to the BRICS, and Table 1c for the countries of the Visegrad Group.

Table 1b: GDP growth in constant prices in the horizon of five years - the countries of BRICS that fulfill the conditions.

Period	Country				
	RUS	CHIN	BRA	IND	ZAF
1999-2003	1), 2), 3)	1), 3)	3)	1), 3)	3)
2000-2004	1), 2), 3)	1), 3)	3)	1), 3)	3)
2001-2005	1), 3)	1), 3)	3)	1), 3)	1), 3)
2002-2006	1), 3)	1), 3)	1), 3)	1), 2), 3)	1), 3)
2003-2007	1), 3)	1), 2), 3)	1), 3)	1), 2), 3)	1), 3)
2004-2008	1), 3)	1), 2), 3)	1), 3)	1), 3)	1), 3)
2005-2009	1), 3)	1), 3)	1), 3)	1), 3)	3)
2006-2010	3)	1), 3)	1), 3)	1), 3)	3)
2007-2011	3)	1), 3)	1), 3)	1), 3)	3)
2008-2012	3)	1), 3)	1), 3)	1), 3)	3)
2009-2013	3)	1), 3)	1), 3)	1), 3)	3)
2010-2014	3)	1), 3)	3)	1), 3)	3)
2011-2015	3)	1), 3)	3)	1), 3)	3)

Source: Own calculations

Table 1c: GDP growth in constant prices in the horizon of five years - the countries of Visegrad Group that fulfill the conditions

Period	Country			
	POL	SVK	CZE	HUN
1999-2003	3)	1), 3)	3)	1), 3)
2000-2004	3)	1), 3)	3)	1), 3)
2001-2005	1), 3)	1), 2), 3)	1), 3)	1), 3)
2002-2006	1), 3)	1), 2), 3)	1), 2), 3)	1), 3)
2003-2007	1), 2), 3)	1), 2), 3)	1), 2), 3)	3)
2004-2008	1), 2), 3)	1), 2), 3)	1), 3)	3)
2005-2009	1), 3)	1), 3)	3)	-
2006-2010	1), 3)	3)	3)	-
2007-2011	1), 3)	3)	3)	-
2008-2012	3)	3)	-	-
2009-2013	3)	3)	-	-
2010-2014	3)	3)	-	2)
2011-2015	3)	3)	3)	2), 3)

“-“ means that none of the conditions is not satisfied

Source: Own calculations

Using as a measure of growth - GDP per capita in Table 2a we present periods in which the countries of the G7 satisfy the conditions:

- 1) the growth is rapid,
- 2) the growth accelerates,
- 3) post-growth output exceeds pre-episode peak.

Table 1b shows similar results for countries belonging to the BRICS, and Table 1c for the European Union and the countries of the Visegrad Group.

Table 2a: GDP per capita in the horizon of five years - the countries of G7 that fulfill the conditions.

Period	Country						
	FRA	JPN	DEU	USA	GBR	ITA	CAN
1999-2003	1), 2), 3)	2)	2)	3)	1), 3)	1), 2), 3)	1), 2), 3)
2000-2004	1), 2), 3)	-	1), 2), 3)	3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2001-2005	1), 2), 3)	2)	1), 2), 3)	1), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2002-2006	1), 2), 3)	2)	1), 2), 3)	1), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2003-2007	1), 2), 3)	2)	1), 2), 3)	1), 3)	1), 2), 3)	1), 3)	1), 2), 3)
2004-2008	1), 3)	-	1), 3)	1), 3)	1), 3)	1), 3)	1), 2), 3)
2005-2009	1), 3)	-	1), 3)	3)	-	1), 3)	1), 3)
2006-2010	3)	1), 2), 3)	3)	3)	-	3)	3)
2007-2011	3)	1), 2), 3)	3)	3)	-	3)	3)
2008-2012	-	1), 2), 3)	-	3)		-	1), 3)
2009-2013	-	-	-	3)	2)	-	1), 3)
2010-2014	-	-	3)	2), 3)	1), 2)	-	3)
2011-2015	-	-	-	2), 3)	2)	-	-

“-“ means that none of the conditions is not satisfied

Source: Own calculations

Table 2b: GDP per capita in the horizon of five years - the countries of BRICS that fulfill the conditions.

Period	Country				
	RUS	CHIN	BRA	IND	ZAF
1999-2003	1), 2), 3)	1)		1), 3)	2)
2000-2004	1), 2), 3)	1)	2)	1), 2), 3)	1), 2), 3)
2001-2005	1), 2), 3)	1), 2), 3)	1), 2)	1), 2), 3)	1), 2), 3)
2002-2006	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2003-2007	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2004-2008	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 3)
2005-2009	1), 3)	1), 2), 3)	1), 2), 3)	1), 3)	3)
2006-2010	1), 3)	1), 3)	1), 3)	1), 3)	1), 3)
2007-2011	1), 3)	1), 3)	1), 3)	1), 3)	1), 3)
2008-2012	1), 3)	1), 3)	1), 3)	1), 3)	1), 2), 3)
2009-2013	1), 3)	1), 3)	1), 3)	1), 3)	3)
2010-2014	1), 3)	1), 3)	3)	3)	-
2011-2015	-	-	-	3)	-

Source: Own calculations

Table 2c: GDP per capita in the horizon of five years - the European Union and the countries of Visegrad Group that fulfill the conditions

Period	EUU	country			
		POL	SVK	CZE	HUN
1999-2003	1), 2), 3)	1), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2000-2004	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2001-2005	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2002-2006	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)
2003-2007	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 2), 3)	1), 3)
2004-2008	1), 3)	1), 2), 3)	1), 3)	1), 3)	1), 3)
2005-2009	1), 3)	1), 3)	1), 3)	1), 3)	1), 3)
2006-2010	3)	1), 3)	1), 3)	1), 3)	3)
2007-2011	3)	3)	3)	3)	3)
2008-2012	-	-	-	-	-
2009-2013	-	1)	-	-	-
2010-2014	-	3)	-	-	-
2011-2015	-	-	-	-	-

“-“ means that none of the conditions is not satisfied

Source: Own calculations

6. Conclusion

Taken into account GDP in constant prices, no country of the G7 does not fulfill the conditions of acceleration growth in studies periods. We can note that the post-growth output exceeds pre-episode peak in all periods in France, Germany, United States and Canada. The growth is rapid in China and in India in all periods, in Russian Federation in 1999-2009, in Brazil in 2002-2013 and in South Africa in 2001-2008. We can note that the post-growth output exceeds pre-episode peak in all periods in all countries of BRICS.

Taken into account GDP in constant prices growth is rapid in Poland in 2001-2011, in Slovakia in 2001-2009, in Czech Republic in 2001-2008, in Hungary in 1999-2006. The growth accelerates in Poland in 2003-2008, in Slovakia in 2001-2008, in Czech Republic in 2002-2007 and in Hungary in 2010-2015. We can note that the post-growth output exceeds pre-episode peak in all periods in Poland and in Slovakia.

Taken into account GDP in constant prices three conditions of acceleration growth, these are the growth is rapid, the growth accelerates and post-growth output exceeds pre-episode peak, are satisfied in Russian Federation in 1999-2003, in China in 2003-2008, in India in 2002-2007, in Poland in 2003-2008, in Slovakia in 2001-2008, in Czech Republic in 2002-2007.

When we take into account the more effective measure of the benefits of economic growth - GDP per capita, we can note that three conditions of acceleration growth are satisfied in the following countries of G7: in France to 2009, in Japan in 2006-2012, in Germany in 2000-2007, in United Kingdom in 2000-2007, in Italy to 2006, in Canada to 2008.

In the BRICS countries in most periods the economic growth in context GDP per capita is rapid. However, considering the period of last five years, economic growth is neither rapid nor accelerates in any country of the BRICS. Taken into account GDP per capita we can state that in European Union the last period of rapid growth is period 2005-2009. In Poland, in Slovakia and in Czech Republic the last period of rapid growth is period 2006-2010 and in Hungary - period 2005-2009. In the last five years in all countries of the Visegrad Group we don't note neither rapid growth nor growth acceleration.

Therefore because of the existing contagion effect in advancing processes of globalization and the related financial crises and global processes, they have an impact on economic growth. The economic growth is a positive aspects of globalization, but the crisis in one of influential countries negative affect the rapid growth or acceleration growth in other countries.

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GLOBAL MOBILITY OF THE WORKFORCE AND CROSS-CULTURAL INTERACTIONS IN THE MULTINATIONAL CORPORATIONS (MNCs)-AS THE CONSEQUENCES OF GLOBALIZATION

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Abstract. Global integration of national economies have led to both increased mobility of the workforce and growing inequalities among countries, which have affected new patterns of migration ex. assigned or self-initiated expatriation, and intensified cross-cultural interactions between people working in multinational teams. Global mobility has been fostered then by states, multinational corporations and institutions of outside hiring which all play a crucial role in channelling, managing and recruiting international employees. A key challenge for MNCs is multiculturalism (Lauring&Selmer, 2012), which is a demographic feature of corporate employees and at the same time unique feature of MNCs (Rozkwitalska&Sułkowski, 2016). Between corporate employees of different ethnic and cultural provenance, various cross-cultural interactions may occur, which can carry positive and negative effects for mutual cooperation. The purpose of this article is to present the consequences of globalization for MNCs, which is a growing international mobility of workers, as well as the positive and negative intercultural interactions occurring in multicultural teams. In the article, the phenomenon of global mobility is presented in a macro level (referring to the global displacement and migration of workers and the impact of economic and socio-cultural); meso-dimension (relating to organizational aspects) such as positive and negative effects of cross-cultural interactions in multicultural teams. This latter aspect is supported by research findings, being only a part of bigger project conducted in Poland.

Keywords: global mobility, expatriate, cross-cultural interactions

JEL Classification: F2, F20, F22

1. Global mobility worldwide and its local consequences

There are few phenomena in the contemporary world, which so affects all spheres of social life like migration, which not only permanently change the social structure of many countries, creating multicultural societies, but confronts multinationals (MNCs) need to make significant changes in their local units. With regard to the theory of globalization, one can speak of glocalisation (Robertson, 1992), a synthesis of globalization and localization, which intertwine and are complementary.

Between 1970 and 2015, the number of international migrants more than tripled, from 81.3 million to 241 million(International Organization for Migration, 2015). Nonetheless, given the high rate of population growth, the share of international migrants in the world population rose

from 2.5 % to 3% during that period. Migrants would thus create the fifth most populous country in the world.

Displacement of people on such a scale and with such dynamics are the result of changes in the political and economic world. In the last five years, erupted at least 15 conflicts, 8 in Africa (Ivory Coast, Central African Republic, Libya, Mali, Nigeria, the Democratic Republic of Congo, South Sudan, Burundi), 3 in the Middle East (Syria, Iraq, Yemen), 3 Asia (Kyrgyzstan, Burma / Myanmar, Pakistan) and 1 in Europe (Ukraine). Political factor determines the movements of more skilled migrants, because they have the financial means to travel, speak foreign languages, are educated and experienced in a profession, making it easier for them to find work in the destination country

The result of the displacement of skilled workers are also economic issues. Tidal wave of international workers shows that these movements are unidirectional ie. from West to East, where there are new opportunities in emerging and developing markets, and where the financial capital is followed by the human capital. Key individual motives of employees considering to work abroad are: development (the development of professional skills and experience), economic (improving the financial situation) and cognitive (the desire to explore new countries and cultures, learning a foreign language) (Przytuła, 2014).

Mobility have increased by 25% over the last decade and we predict a further 50% growth by 2020. The worldwide mobility of groups and individuals has produced a situation in which contact among cultures has become a daily experience for most people (Przytuła et al, 2014). Multiculturalism of human resources, on the one hand is a demographic feature of all corporate employees and on the other hand the unique feature of MNCs (Rozkwitalska & Sułkowski, 2016).

In studies of Global Firms 2020, almost 60% of respondents indicated that in the next decade, employees of international corporations will have international and intercultural experience, and 44% acknowledged that they will be ethnically diverse. Over 50% of companies expect to see mobility volume increase overall for the upcoming two-year period (Economist Intelligence Unit Survey, 2010).

2. Various global workers –from migrants to self-initiated expatriates

People thus move as tourists and adventure seekers; working business people and diplomats; soldiers and missionaries; refugees and new settlers. Some have considerable say in when, where and why they go, others are sent. Some have considerable support (emotional, financial, informational, social, technical), others very little. Some yearn to return home, others rejoice in their escape, which they try to make permanent (Furnham & Bochner, 1986).

Cross-border mobility of the highly skilled is on the rise. A worldwide shortage of professionals – for example, engineers, technicians, production operators, information technologists, accountants, managers and executives – means that they are in high demand. While skilled professionals are only a small segment of the 3% of the internationally mobile labour force-it is about one-fifth of international migrants who are highly skilled (IOM, 2015)-they are key engines of the global knowledge economy, who are called sometimes as the “best and brightest” or pool of talents (Vaiman et al, 2015).

MNCs are in the need of employees who can work effectively across multiple geographical and cultural boundaries (McNulty & DeCieri, 2015). These highly skilled mobile professionals constitute a large part of an organizations’ global talent pool (Vaiman & Collings, 2013). Yet

recent report and studies show that the attraction, development and retention of a particular type of mobile professionals has many inherent challenges.

There is not enough understanding of forms of cross-border mobility but such types as migrants, assigned expatriates (AEs), self-initiated expatriates (SIEs) can be distinguished.

According to UN, migrant is “any person who changes his or her country of usual residence with the ‘country of usual residence’ representing the place where the person has the center of his life. While IOM defines a migrant as any person who is moving or has moved across an international border or within a state away from his/her habitual place of residence, regardless of (1) the person’s legal status; (2) whether the movement is voluntary or involuntary; (3) what the causes for the movement are; or (4) what the length of the stay is.”(IOM, 2015)

In management literature, research on international workers has focused on **organizational, corporate or assigned expatriates** (AE) so called because they have been sponsored and assigned by their parent organizations to the foreign location. Expatriate refers to the employees who are temporarily relocated by their organizations to another country to complete a specific task or accomplish an organizational goal (Shaffer et al, 2012) to differentiate them from those who are locally employed (and may also be foreigners).

The concept of expatriation is tailored rather to the organizational context of crossing borders, whereas the concept of migration is tailored to the general context of crossing geographical borders (Andresen et al, 2013).

The dynamics of development of international enterprises and the changes in business environment induce corporations to flexibly adjust to new conditions. Increasingly more often, an assigned expatriate (AE) is replaced by other forms of expatriation encompassing foreign assignments which are shorter, less costly, and more oriented to the completion of a specific project.

New trends in international assignments are characterized by individuals who personally take responsibility of their careers without the direct support of an organization. Such individuals who themselves make the decision to live and work abroad have been called self-initiated expatriates (Andresen et al, 2013; Cerdin & Selmer, 2014). Self-initiated expatriates are professionals who choose to expatriate and finance their own journey to a country of their choice for an indefinite period to develop their career, as well as for cultural and personal experiences. There are more self-initiated than company-assigned expatriates (Doherty et al, 2007). I.McNulty proposes the various sub-types of SIEs include: foreign executives in local organization (FELOs); local foreign hires (LFHs); expatpreneurs, self-initiated corporate expatriates (SICEs) and third country nationals (TCNs)(McNulty & DeCieri, 2015).

Bearing in mind that the demarcation lines between a migrant, AE and SIE are not always so explicit in reality as it is presented in theoretical models, it is advisable to define additional and more detailed criteria to differentiate those three terms like: organizational affiliation, organization of foreign mission and financial support, intended period of staying abroad, motives of going abroad, socio-cultural adaptation and perception in host countries, direction of transfer, citizenship/ national identity, level of assurance, safety and job satisfaction (see more (Przytuła, 2015).

3. Positive and negative-cross-cultural interaction between global workers

In multicultural work environments people interact with others whose national cultural backgrounds differ, overlap and even intertwine. Managed well, a culturally diverse workforce can enhance business performance and profitability. Thus working in global environments is a new challenge for employees and managers (Youssef & Luthans, 2012). Cross-cultural interactions refer to mutual influences of individuals who represent different cultures (Przytuła et al., 2014). Such an interaction brings together individuals who have diverse patterns of behaviors and cognitive blueprints that help them to perceive and understand the environment. Considering the context of multinational companies (MNCs), cross-cultural interactions refer to contacts of individuals in every unit of MNCs' system, including their foreign subsidiaries, clients, partners, suppliers, etc., embracing both internal and external interactions as well as direct and indirect ones.

Cross - cultural interactions may result in a number of negative and positive interactions. In the literature of the subject some authors (Stahl et al, 2010; Learing & Klitmøller, 2015) imply that the prior research is biased and “the problem-focused view of cultural diversity is by far predominant in research” (Stahl & Tung, 2014). Negative outcomes of cultural diversity and specified barriers in multicultural teams may include increased uncertainty connected with a higher level of diversity, problems in agreeing on activities and meanings, problems and errors in communication which make shared understanding difficult. Multicultural teams have greater potential for misunderstandings and conflict, which are exacerbated if team members are dispersed geographically and across time zones”. It was also found that language and communication difficulties, trust, motivation, and personal relationships were the critical barriers to successful knowledge sharing in multicultural teams.

Some authors (Stahl & Tung, 2014) prove that much less is known about the positive dynamics and the outcomes of intercultural contacts than about the problems. The positive aspects of diversity in intercultural teams or positive spirals of flourishing (Bernstein, 2003), facilitate satisfaction, contentment and thus development, enhanced efficiency of activities, and achievement of outstanding results.

3.1 Research method

In this part of paper the research findings on positive and negative aspects of intercultural contacts between expats and local staff in Poland will be presented. The author reports that the empirical findings presented below are only a part of a bigger project titled “Cross-cultural interactions in foreign subsidiaries of multinational corporations - traditional and Positive Organizational Scholarship approaches” (the research grant no. DEC-2013/09/B/HS4/00498, titled).

The study was based on qualitative case study methods conducted in 5 subsidiaries of MNCs based in Poland. The choice of a qualitative design is consistent with recent calls for the use of qualitative research in the context of international business research (Birkinshaw et al., 2013). The researchers (Rozkwitalska et al, 2015) conducted semi-structured, in-depth individual interviews based on pre-prepared sets of open-ended questions with 68 managers and specialists employed in multinational subsidiaries of MNCs located in Poland. Each interview usually lasted from 45 to 90 minutes and was carried out in the companies' offices in 2014. Generally, the researchers conducted about 62 hours of interviews with an average time of 55 minutes.

The prevailing age group (77%) among 68 respondents included people aged 29-39. Moreover, 43% of researched managers had been working in their current subsidiaries for 5 years, and more than one-third of them had been working from 5 to 10 years in the studied subsidiaries and 16% of the population had 10-15 years' work experience. 7% of respondents had been working for a long time in these subsidiaries, that is more than 15 years.

3.2 The negative aspects of cross-cultural interactions

The most frequently mentioned problems arising from the cooperation with foreigners, both on a personal as well as organizational, respondents pointed to the increased emotional effort, commitment and time to effectively collaborate with a foreigner, language barriers (lack of fluency in speaking foreign languages), adaptive problems, a need to change the approach to the organization of ones own work because of the different time zones and working hours in other units. Examples of the respondents' quotations are presented in Table 1.

Table 1. The negative cross-cultural interactions between foreigners and local employees

The negatives observed by respondents	Quotations
More effort and commitment in interpersonal relations.	“The first association is maybe ‘difficulties’ which are a kind of challenge. Besides, the work with foreigners means to me that some activities have to be done ‘in a different way’, translated and adapted to the foreigners’ needs and their level of perception, knowledge.”
Poor knowledge of the English language on the side of the Poles and foreigners delayed deadlines, resulted in an understatement, created barriers in the implementation of current tasks.	“Poor knowledge of the English language of some foreigners makes every meeting or performance appraisal more complicated as it must take place with the help of an translator or native speaker, which is burdensome, cost- and time-consuming”. “The biggest obstacle is still the language barrier. Inside the company: there is a need to prepare materials, presentations, etc. in both languages at the same time - this increases the operating time and reduces the speed of decision-making. In the external environment: meetings with customers and partners who do not speak English, there is no possibility of direct communication, building relationships face to face”.
Social and cultural adaptation.	„Not all people who work in multicultural teams have the relevant intercultural experience, so there is a need to make them aware of these differences. What falls in one country, it is desirable in the other. They need to be aware of these rules. ”
Change in the approach to the organization of ones own work.	“Working with foreigners requires changing the organization of ones own work f.ex. late hours of calls and other time zones mean that the problem can not always be solved the same day, because you have to wait until someone from the team abroad will come to work. ” "Language and time zones differences affect hampered communication f.ex. other working hours or holidays in the foreign offices and headquarter to some extent is a problem if you need to conduct virtual meeting”.

Source: own research

From the individual perspective, difficulties described above, according to respondents, sometimes generate additional stress, force to an increased effort or cause annoyance, frustration. They are not only the result of participation in intercultural contacts, but are also associated with the personality traits of a person, its openness to other cultures, flexibility (Przytuła, 2013), sociability, ease in establishing interpersonal relationships and familiarity with its multiculturalism resulting from ones' past experience.

3.3 The positive aspects of cross-cultural interactions

The answers including positive associations referred to personal growth, learning opportunities, contact with foreign language, deriving knowledge and experience from foreigners. Some examples of quotes from the study were indicated in Table 2:

Table 2. The positive cross-cultural interactions between foreigners and local employees

The positives observed by respondents	Quotations
Personal growth along with the development of social skills	“Expatriates are ambassadors of their corporations, they represent high presentation skills and personal culture that are over their weaknesses resulting from personality traits”
Learning opportunities, experience broadening and knowledge sharing	„Expats have experience in work in various countries – sometimes they are our instructors and trainers in managing diverse teams in our subsidiary”. „They showed us how to share experiences between company’s subsidiaries in the whole world, how to build networking”
Flexibility in working style	„Foreign employees in or team facilitate global thinking and implementation of simple processes used all over the world” . „The expatriates present high adaptability to specific local circumstances that follows from their previous experience”
Communication effectiveness	“They are focused on project and team management so their ability and will to build positive communication platform is prevailing in their everyday work”. “They speak foreign languages (English, German, French) fluently and what is very positive - they are willing to learn local language (eg. Polish), even if their contract is for one year”
Knowledge sharing	“Western companies have been always characterized with a more advanced level of management, competence, techniques that we have learnt and transferred through all those years to this local barren place. At present, we are witnessing the process of mutual learning”. “[...] what’s important is that what can be transferred. One may pick some new things, find a gap, a niche and get their place there. It doesn’t matter whether such practices are from the East or from the West”. ”I see the benefits of cooperation with foreigners for the subsidiary - we draw on the expats’ experience and ideas, the company is ready to help. It even encourages that people share what they know the best and such behavior is promoted”.

Source: own research

4. Conclusions

Increasing mobility of the global workforce make significant and essential contributions to the economic, social and cultural development of home and host countries, as macro level of analyses. The knowledge economy is growing in importance and the search for highly skilled international employees (AEs and SIEs) who can work effectively across multiple geographical and cultural boundaries is becoming the competitive advantage for MNCs (on meso-level of the analyses). Culturally diverse teams of employees seem to be more common and the mutual cooperation of workers representing various nationalities may cause many positive and negative effects.

The most important results obtained in our research and concerning the interaction between Polish staff and foreigners in 5 subsidiaries operating in Poland, show that the perspective of cooperation with foreigners trigger numerous positive associations in Polish staff: personal challenges, contact with foreign language, deriving knowledge and experience from foreigners,

obtaining another perspective of perceiving oneself and others. The respondents indicate also fears and problems related to such cooperation as stereotypes, language problems, effort connected with learning new things, administrative problems. Yet, pursuant to majority of Polish managers, positive interactions prevail in cooperation with foreigners.

In the context of interpersonal relations between foreigners and local managers in global corporations, what would be of interest in further research perspectives, is micro level of analysis (an individual point of view) and diagnose what kind of individual predispositions of AEs or SIEs such as f.ex. optimism, open-mindedness, self-effectiveness, cognitive curiosity, and cultural flexibility, determine the success of their work in multicultural teams worldwide.

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COMPARISON OF TAX BURDEN OF INCOMES FROM THE DEPENDENT ACTIVITY OF EMPLOYEES IN THE CZECH REPUBLIC AND SLOVAK REPUBLIC IN THE CONTEXT OF GLOBALIZATION TRENDS

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Abstract. The contribution is focused on tax burden related to incomes from the dependent activity in the Czech Republic compared to the incomes from the dependent activity in the Slovak Republic in the context of globalization and harmonization within the European Union countries. Taking into consideration the taxation procedure, there is a difference mostly in the set-up of the tax base for the calculation of the tax liability. In the Czech Republic, the tax is calculated from a gross salary increased by an insurance paid by an employer, which results into the tax base increase – so called super-gross salary. Then, the principle of the super-gross income means the determination base for the tax imposed on incomes of physical persons from the dependent activity is a gross salary increased by social security and health insurance making 34%. On the other hand, in the Slovak Republic the taxable salary is represented by a gross salary decreased by a value of the insurance paid by an employee and a non-taxable part of the tax base. In both countries, primarily in the field of the non-taxable parts of the tax base and tax allowances there are lots of differences that have an impact on the calculation of the net income of an employee. Concerning the payments of health and social insurance there are a lot of similarities in both countries, namely in the area of an amount of the insurance which oscillates around the same level.

Keywords: globalization, harmonization, income tax from dependent activity, health and social insurance

JEL Classification: K31, K32, K34, M41.

1. Introduction

Notably significant development has been recognized within the area of tax systems and their specifics in the Czech and Slovak republics (hereafter only CZ and SK). Especially after the EU integration of both countries we can recognize a movement based on globalization and harmonization trends linked to a unification of tax norms of the EU states. (Kouba et al., 2015). CZ and SK were formerly established as a unique state but since their separation the system of employees taxation has been shaped by regular tax reforms and this type of taxation is still subject to permanent changes (Kočkovičová, 2015). The identical history of both countries is still recognizable through a lot of common characteristics in the field of income tax.

Among the dominant Czech and Slovak legal norms determining the income from dependent activity belong in CZ: Income Taxes Act No. 586/1992 Coll. (hereafter only ITA CZ), Act No.

592/1992 Coll., on General Health Insurance, Act No. 589/1992 Coll., on Social Security Insurance (Široký, 2014) and in SK: Income Taxes Act No. 595/2003 Coll. (hereafter only ITA SK) Act. 580/2004 Coll., on Health Insurance and Act No. 461/2003 Coll., on Social Insurance, all as amended.

2. Taxation of income from dependent activity in the Czech Republic

Income from dependent activity is solved by Income Taxes Act. The ITA CZ was introduced into the Czech tax system in 1993. Since then ITA CZ has been frequently amended (Černíková, 2014). A progressive moving tax rate is applied on the income from dependent activity. Within a tax reform in 2008 the progressive moving tax rate was replaced with a flat tax rate. However, due to the effect of tax allowances and reliefs the tax rate is, in fact, still progressive. (Krajňák, 2015). The tax base consists of employees income increased by an amount relevant for contribution into the general health insurance and social security, which is the obligatorily defined amount paid by employers for their staff – so called super-gross salary. The tax base does not comprise the income linked to tax exemptions, income which is not subject to taxation and the income relevant for taxation by withholding tax. From 2014 the employees with the income exceeded a legally prescribed limit are obligated to pay so called solidarity tax using the tax rate of 7%. The solidarity tax is resulted from a difference between the sum of incomes from dependent and independent activities minus 48-multiple of an average salary (2016: 1 296 288 CZK per year i.e. 108 024 CZK per month).

Table 1 is representing a general (monthly) set-up of a tax base applied on the gross income of an employee in CZ, which is different from the taxation used in SK (see Table 4).

Table 1: Assessment of the tax from income related to dependent activity in CZ

Gross income (salary and its components)
Super-gross salary (Gross income increased with the insurance paid by employer (Gross income x 1,34) or (Gross income x 1,09))
Tax base rounded up to hundred
Tax advance 15%
Tax before reliefs
Tax reliefs
Tax after reliefs
Tax advantage
Tax liability or Tax bonus

Source: Own creation

Tax prepayment can be reduced by reliefs specified by ITA CZ in § 35ba and § 35bb.

Table 2 below introduces an exhaustive overview of tax reliefs used by a taxpayer.

Table 2: Complete overview of tax reliefs based on ITA CZ § 35ba a § 35bb in 2016 (in CZK)

Tax relief per:	yearly	monthly
Taxpayer	24 840	2 070
Spouse (husband or wife)	24 840	Application impossible
Spouse is holder of a card for a severely handicapped person (ZTP/P card-holder)	49 680	Application impossible
Disability of 1 st and 2 nd grade	2 520	210
Disability of 3 rd grade	5 040	420
Taxpayer is the ZTP/P card-holder	16 140	1 345
Student	4 020	335
Child situated in preschool institutions	9 900	Application impossible

Source: ITA CZ

The tax relief can be employed by a taxpayer through a tax discount (a tax exceeds a tax relief) or through a tax bonus (if a tax is null) and through a tax discount and the tax bonus. In case the tax is lower than the tax relief, the tax is decreased by a tax discount and the exceeded tax part is represented by the tax bonus. (Jahoda & Godarová, 2012). The amount of the tax relief depends on the order of maintained children see Table 3).

Table 3: Tax relief related to maintained children in 2016 (in CZK)

Tax relief	Yearly	Monthly
1 st maintained child	13 404	1 117
2 nd maintained child	15 804	1 317
3 rd child and each next maintained one	17 004	1 417

Source: ITA CZ

3. Taxation of income from dependent activity in the Slovak Republic

Incomes from dependent activity are based on an employment (§ 5 of ITA SK). Dominantly, they comprise gross salaries and remunerations of employees and associates (Paliderová et al., 2015). Tax liability is calculated from a tax base which consists of taxable incomes from dependent activity reduced by insurance, contributions obligatorily paid by employees and non-taxable items (items that are not subject to taxation and incomes related to withholding tax). The tax base is rounded down to euro cents and the subsequently calculated tax is decreased by a tax bonus (if a taxpayer is entitled to generate it). Table 4 is representing a set-up of the tax base applied on the gross income of an employee in SK.

Table 4: Assessment of the tax from income related to dependent activity in SK

Gross salary
6. Reduction by social and health insurance of employee
Partial tax base
4. Reduction by tax allowances
Taxable income of employee
Tax rate of 19% or 25%
Tax
5. Reduction by Tax bonus
Tax after Tax bonus

Source: Own creation

Tax rate is applied on the common tax base or the tax is collected using a withholding concept. The final tax is rounded down to euro cents. The withholding tax is used if an individual tax base is not added into the common tax base after a tax period is terminated. (Krivčíková, 2016). Tax liability is assessed based on the tax rate 19% which is applied on the part which is not higher than 176,8 multiple of a subsistence income (i.e. 35 022,31 EUR per year and 2 918,52 EUR per month) and 25 % is applied on the part exceeding 176,8 multiple of the subsistence level. Monthly value of the subsistence income is 198,08 EUR per person.

According to § 15a of ITA SK also a personal rate of 15% is defined and it is imposed, for example, on incomes from dependent activities related to President of SK, Parliamentarians, Government members, Chairmen and their deputies of Supreme Inspecting Authority. The text above indicates that SK use a moving progressive tax depends on the amount of the tax base, which leads to higher taxation imposed on taxpayers with above-standard incomes.

4. Practical application of net income calculation and comparison of differences

This chapter is dedicated to the comparison of income taxation from dependent activity of taxpayers from CZ and SK by means of model examples using an employee who is, in the first case, a tax resident of CZ and in the second case a tax resident of SK, both with the incomes generated only in one particular state. Values of monthly gross salaries proceed from the minimal and average incomes from dependent activity to incorporate the most extensive range of tax payers (low-income as well as the middle-income groups of inhabitants) and also to demonstrate changes in values of assessed bases, non-taxable parts of tax bases and tax rates applied for taxation of salaries. The examples also comprise a different number of maintained children. The final values are presented in amounts and also in percentage values to bring more conclusive comparison of the income taxation in both states.

Table 5: Overview of gross salaries

Income	CZ	SK
Subsistence income	9 900 CZK	405 EUR / 10 945 CZK
Average income	27 006 CZK	858 EUR / 23 187 CZK

Source: Own creation

Exchange rate of Czech National Bank as at 1.1.2016: 27,025 CZK/EUR has been applied.

4.1 Model example of tax calculation for employee receiving the subsistence income

Taxpayer in CZ has income corresponding with the subsistence level of 9 900 CZK per month. Table 6 represents the final tax liability and net income relevant for a taxpayer, who signed a tax declaration and has a childless status. Then, below there is also illustration of a taxpayer with one, two and three maintained children.

Table 6: Taxation of subsistence income in CZ valid for 2016 (in CZK)

	0 child	1 child	2 children	3 children
Gross income	9 900	9 900	9 900	9 900
Health and social insurance	1 090	1 090	1 090	1 090
Super-gross salary	13 266	13 266	13 266	13 266
Tax base	13 300	13 300	13 300	13 300
Tax	1 995	1 995	1 995	1 995
Tax relief per taxpayer	2 070	2 070	2 070	2 070
Tax after Tax relief	0	0	0	0
Tax advantage	-	1 117	2 434	3 851
Final tax	0	1 117 (Tax bonus)	2 434 (Tax bonus)	3 851 (Tax bonus)
Net income	8 810	9 927	11 244	12 661

Source: Own calculations

Taxpayer in CZ who receives the subsistence income, does not pay any tax. If a taxpayer is childless, the tax is equal to null because tax reliefs exceed the final tax. In the other three examples, the tax payer is even a bearer of tax advantage. The ratio of net income to gross income is for particular variants as follows: 88,99 %, 100,27 %, 113,56 % a 127,89 % (the values above 100% are caused by tax advantage which is higher than insurance paid by the tax payer). The insurance per employee is paid in the amount of 1 090 CZK (446 CZK for health insurance and 644 CZK for social insurance) and an employer is obligated to pay 3 366 CZK (891 CZK for health insurance and 2 475 CZK for social insurance). Total cost of the employer is 13 266 CZK. Taxpayer in SK has an income corresponding with the subsistence level of 405 EUR per month. Table 7 represents the final tax liability and net income relevant for a taxpayer, who signed a tax declaration and has a childless status. Then, below there is also illustration of a taxpayer with one, two and three maintained children.

Table 7: Taxation of subsistence income in SK valid for 2016 (in EUR)

	0 child	1 child	2 children	3 children
Gross income	405	405	405	405
Health and social insurance	41,07	41,07	41,07	41,07
Partial tax base	363,93	363,93	363,93	363,93
Tax allowances	316,94	316,94	316,94	316,94
Taxable income	46,99	46,99	46,99	46,99
Tax	8,92	8,92	8,92	8,92
Tax bonus	-	21,41	42,82	64,23
Tax after Tax bonus	8,92	12,48 (Tax bonus)	33,89 (Tax bonus)	55,30 (Tax bonus)
Net income v EUR/CZK	355,01 / 9 594 CZK	376,42 / 10 173 CZK	397,83 / 10 751 CZK	419,24 / 11 330 CZK

Source: Krivčíková, 2016

Similarly to the previous example, the taxpayer in SK generates a tax bonus due to advantage related to the number of maintained children. However, unlike the childless CZ tax payer, the SK one has to pay the tax in the amount of 8,92 EUR. The ratio of net income to gross income for particular variants is as follows: 87,66 %, 92,90 %, 98,23 % a 103,52 %. The insurance per employee is paid in the amount of 41,07 EUR / 1 110 CZK (3 EUR for health insurance and 38,07 EUR for social insurance) and an employer is obligated to pay 109,55 EUR / 2 961 CZK (7,50 EUR for health insurance and 102,05 EUR for social insurance). As the taxpayer meets the conditions for application of personal tax allowance for calculation of health insurance, the assessed base makes 75 EUR (instead of 405 EUR). The calculation of the tax allowance is: $380 - 2 \times (405 - 380) = 330$ EUR. The amount of the assessed base is represented by the difference of gross income and the tax allowance.

4.2 Model example of tax calculation for employee receiving the average income

Taxpayer in CZ has an income corresponding with the average salary, which is 27 006 CZK per month. Table 8 represents the final tax liability and net income relevant for a taxpayer, who signed a tax declaration and has a childless status. Then, below there is also illustration of a taxpayer with one, two and three maintained children.

Table 8: Taxation of average income in CZ valid for 2016 (in CZK)

	0 child	1 child	2 children	3 children
Gross income	27 006	27 006	27 006	27 006
Health and social insurance	2 972	2 972	2 972	2 972
Super-gross salary	36 189	36 189	36 189	36 189
Tax base	36 200	36 200	36 200	36 200
Tax	5 430	5 430	5 430	5 430
Tax relief per taxpayer	2 070	2 070	2 070	2 070
Tax after Tax relief	3 360	3 360	3 360	3 360
Tax advantage	-	1 117	2 434	3 851
Final tax	3 360	2 243	926	491 (Tax bonus)
Net income	20 674	21 791	23 108	24 525

Source: Own calculations

Taxpayer in CZ who receives the average income is obligated to pay the tax in the first three cases. The tax is decreasing with the growing number of children. Taxpayer having three maintained children additionally gets the tax bonus, i.e. negative tax. The ratio of net income to gross income for particular variants is as follows: 76,56 %, 80,69 %, 85,57 % and 90,82 %. The part of tax liability on the gross income in the first three variants is corresponding with these values: 12,44 %, 8,31 % and 3,4 %. The insurance per employee is paid in the amount of 2 972 CZK (1 216 CZK for health insurance and 1 756 CZK for social insurance) and an employer is obligated to pay 9 183 CZK (2 431 CZK for health insurance and 6 752 CZK for social insurance). Total cost of the employer is 36 189 CZK. Taxpayer in SK has an income corresponding with the average salary of 858 EUR per month. Table 9 represents the final tax liability and net income relevant for a taxpayer, who signed a tax declaration and has a childless status. Then, below there is also illustration of a taxpayer with one, two and three maintained children.

In contrast to the previous example, the taxpayer in SK does not generate any tax bonus. In other words, in all variants there is an obligation to pay a tax, which is decreasing with the growing number of maintained children. The ratio of net income to gross income for particular variants is as follows: 77,17 %, 79,67 %, 82,16 % and 84,65 %. The part of tax liability on the gross income corresponds with these values: 9,44 %, 6,94 %, 4,45 % and 1,95 %. The insurance per employee is paid in the amount of 114,97 EUR / 3 133 CZK (34,32 EUR for health insurance and 80,56 EUR for social insurance) and an employer is obligated to pay 302 EUR / 8 230 CZK (85,80 EUR for health insurance and 216,20 EUR for social insurance).

Table 9: Taxation of average income in SK valid for 2016 (in EUR)

	0 child	1 child	2 children	3 children
Gross income	858	858	858	858
Health and social insurance	114,97	114,97	114,97	114,97
Partial tax base	743,03	743,03	743,03	743,03
Tax allowances	316,94	316,94	316,94	316,94
Taxable income	426,09	426,09	426,09	426,09
Tax	80,96	80,96	80,96	80,96
Tax bonus	-	21,41	42,82	64,23
Tax after Tax bonus	80,96	59,55	38,14	16,73
Net income v EUR/CZK	662,08 / 17 893 CZK	683,49 / 18 471 CZK	704,90 / 19 050 CZK	726,31 / 19 628 CZK

Source: Krivčíková, 2016

Taking into consideration the percentage values of individual variants, there is again confirmed the tax payer in CZ gains in all cases higher net income related to gross income with one exception of the first variant. The ratio of the tax to gross income for the CZ taxpayer is higher in the first two variants, whereas for the SK taxpayer the ratio is higher in two last variants.

5. Conclusion

Comparing the process of taxation imposed on employees incomes in both states, a distinction is detected especially in the assessment of tax bases. CZ is the only country in EU that applies for taxation of salaries so called super-gross salary. Despite the variety in tax bases relevant for dependent activity in both countries, results have brought the finding that final differences do not vary significantly. Only in CZ there is a slightly better position of employees receiving the subsistence income who do not pay any taxes. Also taxpayers having the average income with combination of more than three maintained children generate better tax position.

Whilst the process of harmonization focused on indirect taxes in EU is on advanced level (Široký et al., 2015), the same statement could be hardly used for direct taxes where the harmonization is adopted mainly through the judgements of European Court of Justice (Vrtíková, 2015). It is caused by the fact that globalization trends related to direct taxes are not much vital for functionality of the common trade unlike indirect taxes. There are also other aspects like internal politics in countries, certain independency and last but not least also diversity in local accounting rules valid for particular EU states relevant for variety in calculations of income taxes. The income taxes from dependent activity in CZ and SK are affected by differences in tax bases, tax allowances, tax reliefs, tax advantages etc. However, despite these differences the final ratio of net income to gross income does not register significant deviations (unlike the other EU states). Tax harmonization on the field of direct taxes, although not so extensive like in the area of indirect taxes, is still necessary substance of European integration and globalization (Nerudová & Bohušová, 2007).

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INFORMATION QUALITY FOR P2P PLATFORM SELECTION IN A GLOBAL ENVIRONMENT

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Abstract. Online lending platforms are evolving rapidly, providing additional opportunities for smaller market payers to get financing and, from the other side, to invest savings. The market is online, thus potentially open for any country in the world, but should apply to specific regulations and perceptions that vary among countries. In lending process the most important is the problem of asymmetric information and its consequences, thus the information and its disclosure is critical. Without legal disclosure and transparency requirements, the information and tools supporting the lending decision and procedures dealing with payment overdue are mostly dependent on platform organizers. The default risk falls on lenders, usually having limited proficiency in credit risk valuation and portfolio formation. The paper deals with lending or investment side, applying the main question: what are the information quality determinants when making the decision for P2P platform selection. P2P allows to act globally, but information provided should apply common requirements and standards and be equally understandable for geographically different lenders. As the result the information quality criteria are proposed, including web/platform, company related, borrower and loan type information, and then tested on Lithuanian and few European platforms for comparison purposes. The results revealed that information content provided is abundant with size of the platform, although the financial transparency, as well as information comparability and comprehensiveness are limited.

Keywords: information quality, transparency, trust, credit risk, P2P platform selection

JEL Classification: D82, G14, O16, F65

1. Introduction

The online lending is based on transaction lending principles, but it is argued that the problem of information asymmetry and adverse selection may be reduced by providing more accurate, aggregated and historical data and by social networks. The ability to make a well reasoned lending decision largely depends on information and tools provided by lending platforms. The regulation of market is limited, thus the disclosure and transparency, information and channel quality, tools for decision support deal with managerial incentives and management practices and, the most important, innovations. The concept of trust is admitted as the main factor influencing the lending decision and incorporating the behavioural factors of decision motives, namely the beliefs based on cognition, affect, experience and personality (Kim et al., 2008). Online platforms take the role of agents in risk assessing process by filtering, clustering the information, providing credit scoring, programs for automated decision making,

possibilities to discuss and connect in social networks. The fulfillment of these functions is of crucial importance when decision on platform selection is being made by investors. Beside the business model in general, the quality and transparency of information available has an impact not only on decision to choose the particular local platform, but also to participate in P2P lending globally. The aim of the paper is to systemize and test the factors of information quality (IQ) and transparency that influence the decision of P2P platform selection in global environment. The problem applied in the paper is mostly concentrated on first P2P platform selection, but further steps would be non the less important - portfolio formation and management. The speed of market development proposes even further research areas - development of strategies for portfolio management and strategies for investment trusts' activities.

2. Theory considerations on information quality in P2P lending

The online lending decision is related to several stages, first choosing the platform, then lending and portfolio formation and continuing portfolio management. The paper is concentrated on P2P platform selection along with lending decision and supporting factors. IQ and transparency is one of the main connectors among the interested parties in P2P lending - borrower, lender and the platform/company. The underlying is taken from lending intention concept, as it captures the relation of all parties through trust concept. The IQ is treated as determinant of cognition-based trust antecedents. IQ acts as indirect determinant in experience-oriented and affect-based trust antecedents as well (Kim et al., 2008; Chen et al., 2014). Relationship between intention and behaviour is based on the assumption that human beings attempt to make rational decisions based on information available (Kim et al., 2008). The problem of information asymmetry between lenders and borrowers in banking is solved by assessing the information about the borrower and keeping the long-term *relationships* (combining transaction and relationship lending). The problem in online lending appears and is critical in order the lending model could prosper. Most of researches in P2P lending address this problem (as more precisely described by Chen & Han (2012)) in order to overcome the adverse selection and moral hazard problems as consequences of information asymmetry (Yan et al., 2015).

The information used in online lending may be classified as hard and soft (Lin et al., 2013). It is agreed that the most important lending criteria - assigned to *hard information* type - is credit rating or credit score (Chen & Han, 2012; Lin et al., 2013; Guo et al, 2015). The reliability of its calculation is critical, as online lenders are not professionals in credit risk valuation and portfolio management, compared with bank experts and systems used (Iyer et al., 2010; Chen & Han, 2012). As noted by Chen et al. (2014), the information used and reliability differs, as online lending companies may use the third party ratings (as FICO score in US, CreditInfo in Lithuania, Krediidiinfo in Estonia) or calculate by themselves. The calculation details of any of them are not disclosed, thus reliability depends on experience and expertise and is a subject of practical and theoretical discussions.

The *soft information* used in online lending is abundant and compensates at least partly the weakness of relationship lending absence (Lin et al., 2013). According to Yan et al. (2015) information flow in online lending is more frequent and transparent. Moldow (2015) and Yan et al. (2015) argues that platforms have much more opportunities to use various dynamic sources of data, retrieved from websites and public institutions. Lin et al. (2013) concludes that social capital, the online friendships of borrowers in particular, increase the probability of

successful funding, lower interest rates on funded loans, and are associated with lower default rate. Therefore the most important issues for reliability are the *disclosure and quality of information*, *assessment tools* used, instruments and techniques of big data mining used and *capability of P2P platform to analyse and assess the information*. The clearly reported actions taken to involve innovative risk valuation methods and comprehensive demonstration of results could positively influence lenders' attitude toward the particular P2P platform selection.

Along with type of information it is important to note that the *quality of information* itself and the way it is disclosed should be defined and follow certain characteristics. Only the availability of obligatory or voluntary information does not mean quality or transparency: large amount of unstructured information leads to confusion and mislead rather than to transparency (BIS, 1998; TI, 2014). Lack of information and large amount of raw information leads to situation of asymmetric information, when one party is more informed than the other (Nier & Baumann, 2006). According to transparency initiative (TI, 2012) information should be *relevant and accessible* (comprehensive language and formats, detailed and available in appropriate ways for stakeholders) and *timely and accurate* (available in sufficient time for decision making, up-to-date, accurate and complete). IASB stresses the importance of high quality, transferable and comparable information. IFRS (2014) requires addressing the *understandability, relevance, reliability and comparability* of information. Dimensions defined by BIS (1998) – *comprehensiveness, relevance and timeliness, reliability, comparability, materiality*. For banks it is required to follow the disclosure principles: *clear, comprehensive, meaningful, consistent, comparable*. There are different IQ dimensions developed depending on type of organization, type of information, user profile, place where information is provided. When analyzing the IQ for P2P platform selection for lending purposes, two streamlines of IQ research frameworks should be incorporated: *content* (as corporate and as intermediary for lending) and *channel* (web and social media). The availability of qualitative information is treated as *transparency*, which in online lending is regulated by platforms themselves, as online lending doesn't fall under the regulations of credit institutions. Platforms make an effort to be transparent not only by providing the detailed information publicly, but also allowing to download statistical information on borrowers' applications and loans (Serrano-Cinca et al., 2015).

The measurement dimensions developed (Table 1) provide the nexus of IQ criteria and type of information for P2P platform selection. The factors describing each group of information captures the P2P lenders' perceptions indirectly as based on previous IQ studies related to e-services, online banking, bank selection, web quality and communication channels. For *company*-specific criteria the most important is not only provision of certain information, but also reporting on fulfilment of responsibilities, actions and targets planned, as it forms the experience-based and reputation-based attitudes (Parasuraman et al., 2005; Swaid & Wigand, 2009; Srairi & Douissa, 2014; Blankson et al., 2009). Company-specific criteria are especially important in global environment as situation differs by country, thus compliance to international standards, regulations, recommendations, legal framework, regulating and auditing bodies, board and governing structure and competences, ownership, financial data, social responsibility measures add additional transparency and value. The *web site / platform* criteria group is developed aggregating the information criteria related to e-service and web quality measurement models (Freedman & Jin, 2008; Swaid & Wigand, 2009; Zhao & Zhu, 2014; Srairi & Douissa, 2014). The advantages of web resources as provision of information on processes, documents and data, active client information, education and communication are valued in line with security.

Table 1: The matrix of IQ determinants for P2P platform selection

Criteria		Content					Channel				
		Complete	Consistent	Verifiable	Understandable	Comparable	Visible	Accessible	Timely	Secure	Maintained
Company	Corporate		√		√		√				√
	Core values fulfillment	√	√		√		√				√
	Financial status	√		√	√	√		√	√		
	Social compliance		√				√				
Web site / Platform	Security			√			√				√
	Documentation	√	√				√	√			√
	Statistical data		√		√	√	√	√	√		√
	News, reporting				√		√		√		√
	Service procedure	√	√	√	√		√		√		√
	Networking		√					√		√	
	Supporting programs				√	√		√	√		√
	Web technologies							√		√	√
Borrower	Credit rate, methods		√	√		√		√	√		√
	Financial data	√			√	√		√	√		√
	Personal data	√			√	√		√	√		√
	Borrower comments						√	√			
Loan	General characteristics	√				√	√				√
	Collateral	√		√			√		√		
	Payback conditions		√	√			√				√
	Reporting on status	√	√				√	√	√		√

Source: formed by authors.

Type of information about the *borrower* and *loan* characteristics is based on previous studies of e-banking services and transparency of financial service providers (Kundid & Rogosic, 2012; Srairi & Douissa, 2014; Railiene, 2015). The use of outside and custom ratings is important, as well as explanation on methodology of credit rationing and its development, the use of soft information and big data models. Borrower financial and personal data is measured, as well as description of verifiability of data. Information about the collateral and its status is important (where applicable) and instant information about the possibility to use additional guarantees in case of default, whether it would be payback guarantees, compensation or guarantee funds. Finally, reporting status on individual portfolio, guarantee funds (if applicable), changes in borrower risk category or other status is measured in nexus.

3. Methodology

The IQ determinants for P2P platform selection were researched by case study of five P2P platforms. Platforms were selected on geographical basis, with the main aim to assess the current state of comparability in global environment, despite the fact that not all platforms researched declare the challenge to act globally. Research sample consist of three small-scale (in global context) active platforms acting in Lithuania - Savy (opened on Aug. 2014), FinBee (opened on Aug. 2015), Paskolu klubas (opened on Dec. 2015) and two large-scale platforms acting in several European countries Mintos (based in Latvia, active since 2014) and Bondora (based in Estonia, opened on 2009). The *aim* of case studies is to test the theoretical model of IQ determinants by identifying the practices of information content disclosure and channels used by active P2P platforms. The IQ determinants tested include all four groups - company, web site/platform, borrower and loan - as discussed in previous section. Only information

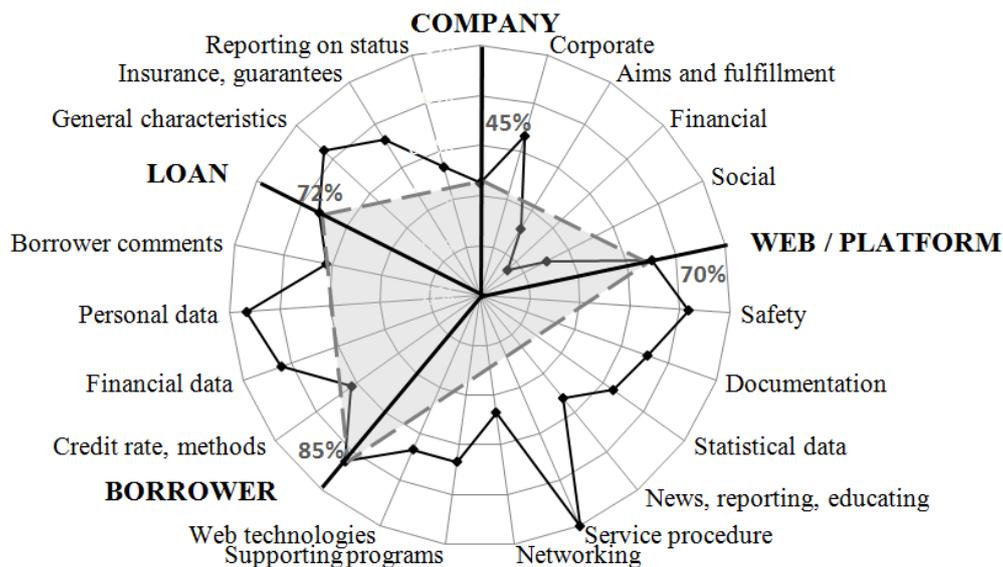
provided on sites was taken to consideration and the presence of certain determinants was tested in accordance to IQ criteria.

The limitation of the research is that analysis was made once, but repeated longitudinal survey would show the developments and errors. The further development of IQ framework is needed firstly defining the most important determinants from the perception of information users - existing and potential P2P lenders. It would give the possibility to define the level of a single platform. These limitations highlight the main further research areas.

4. Research Findings

When valuing the information quality for P2P platform selection, the most important are procedures to ensure the fair valuation of borrower, tools and methods used to assign the credit risk category, and business models used with different insurance and guarantees provided (or not) in case of default. The other information provided adds additional value as well. The aggregated research findings on practice of disclosure level are presented in Figure 1 and on information type and criteria nexus in surveyed P2P platforms in Table 2.

Figure 1: Information disclosed in researched P2P platforms



Source: formed by authors based on case study findings.

The main comments on the practice of information disclosure and the nexus with IQ criteria may be summarized as follows. The *company*-specific information is provided, visible and understandable, but fulfillment is merely followed, as well as ownership, financial status and social compliance. The *web site/platform*-specific information determinants are mostly followed, where service procedure along with documentation, costs and taxes explained may be valued as fulfilled the best. Safety of personal data, payments, and use of platform is mostly declared and maintained, yet provision of ensuring mechanisms or certificates would be preferable. The consistency and public availability of statistical data in P2P platforms forms the culture of loan information disclosure, but unified methodology and equal treatment of data is needed in order to be comparable and not misleading. The communication function is addressed, forums and social media channels are initiated, but not always actively used and two-sided; in outside forums discussions are explicit, but not all P2P platforms are engaged.

Supporting programs are developing, secondary market and automated portfolio functions are implemented, but with different criteria, thus is mostly a subject of individual needs.

Table 2: The research findings on practice of IQ for P2P platform selection

Criteria	Content					Channel				
	Complete	Consistent	Verifiable	Understandable	Comparable	Visible	Accessible	Timely	Secure	Maintained
Company										
Corporate										
Core values fulfillment										
Financial status										
Social compliance										
Web site / Platform										
Security										
Documentation										
Statistical data										
News, reporting										
Service procedure										
Networking										
Supporting programs										
Web technologies										
Borrower										
Credit rate, methods										
Financial data										
Personal data										
Borrower comments										
Loan										
General characteristics										
Collateral										
Payback conditions										
Reporting on status										

Source: formed by authors based on case study findings; scale: 0 (low) - 100 (highest).

The *borrower* and *loan* -specific information is visible, accessible and comparable, with one key exception - there is limited and rear explanations on credit rationing methods, tools and developments. Borrower financial and personal data, loan characteristics, collateral (where applicable) is stated in common manner, covering the most important dimensions, but verification authorities are merely listed. The payback guarantees or compensating policy in case of defaults explained, but comparison is difficult and reliability may be judged only with experience. Individual portfolio status reporting is consistent and visible, however only large international platforms offer explicit, more convenient and additional functions. Reporting on guarantee fund status is limited and changes in borrower status not reported (on credit rating, income, dependants, additional loans, rating changes and the like).

5. Conclusions

The construct of IQ for P2P platform selection is multidimensional and includes conceptual approaches and methodologies developed in researches of trust antecedents in online lending, online service quality dimensions and web quality, online reporting, transparency of finance institutions and bank selection criteria. The IQ criteria are grouped as content and channel and are suggested to be applied for measuring information related to company, Web site/platform, borrower and loan.

The culture of IQ of P2P platforms is still under development, but already could be assessed as corresponding to high standards in case of disclosure of statistical data, information on borrower and loan, use of soft information for improvement of business and processes. Despite it the improvement of disclosure and maintenance of company specific information, methodology of credit risk valuation, data and ratios would be recommended. The findings impose the need not only for regulations in order to ensure the legitimacy of services, but also for preparing the international recommendations of P2P platform public disclosure, defining certain criteria for fair, equally understandable, maintained required and voluntary (as guidelines) information.

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SUSTAINABILITY IN THE PROCESS OF GLOBALIZATION

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Abstract. We live in an age of worldwide seemingly intractable global problems. On the one hand poverty, environmental degradation, political and economic injustice, on the other hand excess, wastage and accumulation of waste. This situation is part of the age of sustainable development or it is just the result of "consumerism"? As reported Hes (2014) consumerism is a form of human behaviour-consumers. The unjustified consumption is characteristic of this behaviour. People do not buy only what they need but also what they like and they think that it brings good luck. A company, which allows this behaviour, is called "consumer society". It is the result of economic growth and global trends. It leads to the overproduction, the cost reduction and to the higher profits. Although overproduction has a certain advantage, but it also has negative effects, such as growth of debt people, overconsumption, hidden deterioration of health, the destruction of nature. The question now is to search for answers: what to do next? That is the subject of theoretical research, which is linked to the practical situations in the present article. Jeffrey D. Sachs in his book *The Age of Sustainable Development*, 2008 presents a convincing and practical framework for how people can use global journey. The issue of sustainability and sustainable development is appointed by the author, as a way of looking at the world with a focus on the context of the economic, social and environmental changes. We can understand roughly sustainable development like a certain analytical theory as a normative or ethical framework.

Keywords: Globalization, sustainability, production chain, consumer, social responsibility.

JEL Classification: O13, M14, M31

1. Introduction

In the book, *Agenda years to come* Jaroslav A. Jirásek, 2006 states: the development of the economy in the second half of the 20th century at the expense of nature took big extremes. "Club of Rome" is already in the 80s of last century to persuade the UN to decide to accept the constraints on growth. It failed. Nevertheless, reports of problems that arise have prompted scientists, engineers and technicians to search for more efficient technologies - for fuller utilization of fuel, raw materials and the "waste free" not only in the production and recycling of used materials. The world became aware of the critical state of nature and its importance and sustainability for the existence of life.

Then in the nineties it was adopted at the World Assembly in Rio de Janeiro document with the motto of "sustainable development". Yet more than a decade with under voltage here China hesitated and signed on receipt of the WTO. The US refused, the American president when expressed in terms of "not sign" something that the Americans rushed to the problem of unemployment (Jirásek, 2006).

Sustainable development in the globalization process of the world is closely connected with raw material extraction, production, distribution, sale, purchase and consumption. Responsible approach each subject from the extraction of raw materials, primary producers through processors, distributors, retailer to the final consumer in the supply chain production - Production - Consumption is becoming an important determinant of sustainable development.

The current global trend of continuous economic growth leads to overproduction and leads to sustained higher consumption. Consumer society allows people to still greater satisfaction of needs. This also leads to greater use of natural resources which are not unlimited. How to connect the ever increasing demands of people with sustainable development? One way is to change the production chain.

2. Objective, Material and Methods

On the basis of data obtained from internal and external sources, the aim is to map and show the pros and cons (risk) of the current trend of continuous economic growth of the state of sustainable development.

For methodological approach in addressing and achieving goals have been used:

- Definition of the basic concept (category) sustainable development, the content of which is to explain and clarify the relationship of continuous economic growth and sustainable development necessary:

Sustainable development as a continuous process representing the balance of economic, social (including ethics) and environmental aspects of life prosperous society that will gently use its resources (own and imported). Sustainability is not a target state, but it is permanent process in which it is necessary to deal with the most pressing and actual.

- Secondary data obtained from internal and external sources concerning the relationship between the growing consumption of final consumers (households), wasting (waste) and the impact on sustainable development in the Czech Republic, including a general.
- The primary data obtained from research without waste management companies in selected industries in the state of sustainable development.
- Primary and secondary data were analyzed and compared. The information obtained was processed, evaluated and used in the present article. Induction-deduction method was used to search for the answer, whether from the regularity researched phenomena (such as food waste in the Czech randomly selected households) can be deduced the general rule applicable to phenomena at another place and at another time (change in the production chain in general).

3. Production chain

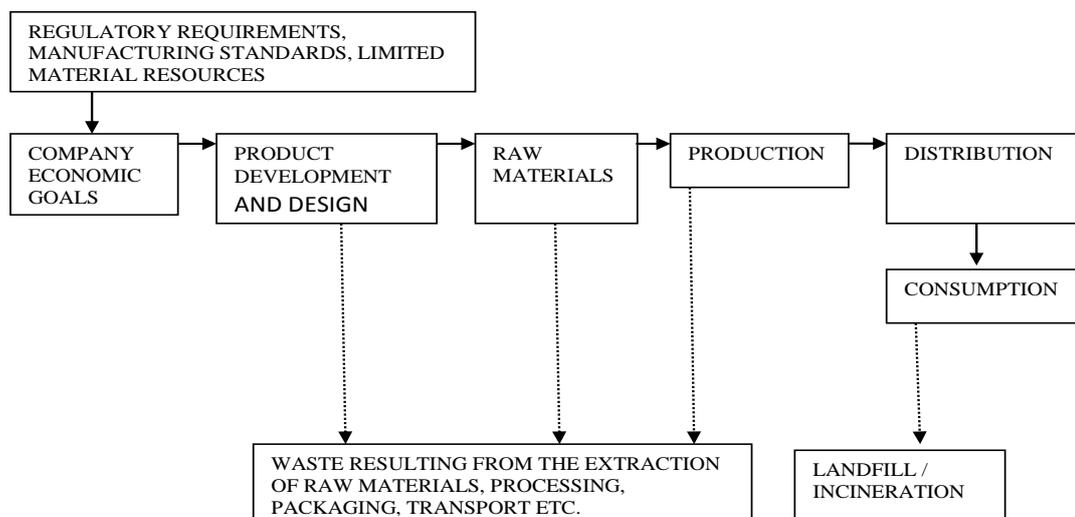
The production chain includes all actions and their impacts that mining in the logistics chain - production - consumption we shall do. This means that it covers the regulatory requirements, production standards, material resources through economic objectives, development and product design, raw materials used, production, distribution to consumption. In the production chain it is also necessary to include energy sources, ensure decent conditions for workers, eliminate the negative externalities of transport, and consider what happens to a product when it ends of its life and what becomes of waste and excesses arising in.

3.1. Conventional production chain

The following diagram of figure 1 shows the current - conventional production chain, which is referred to as linear. It was somewhat lost in the distant past. There were obtained from natural sources, which were used for bare survival of living beings at the cost of high casualties. Overhead influence on nature has very little influence; and that was too little responsibility. Linear diagram was not a problem until the Industrial Revolution. Then we have achieved new knowledge in the natural and later social (economic) sciences. Sufficient production capacity, in fact, led to the destruction of nature and the environment on a massive scale.

Linear production chain is the epitome of what was to the industrial revolution and modernism negative: recklessness, impatience and often vulgarity. The good news for today is that never existed in a pure form. The impact of this production type was mitigated through regulations, limitations in human and material resources and waste management attempts. (Sustainable Development, 2016). Economic targets in conventional production chain should be in accordance with social (ethics) and environmental objectives. Factually this was not and it is not. Informative value of Figure 1 is obvious: waste is generated in the extraction of raw materials, manufacture of a product in the distribution of the product as well as in consumption, which occurs, for example in food considerable wastage in households, as stated Šálková et al. (2015).

Figure 1: Conventional production chain.



Source: <http://udrzitelny-rozvoj.cz/clanky/co-je-to-zeleny-produkcni-retezec>

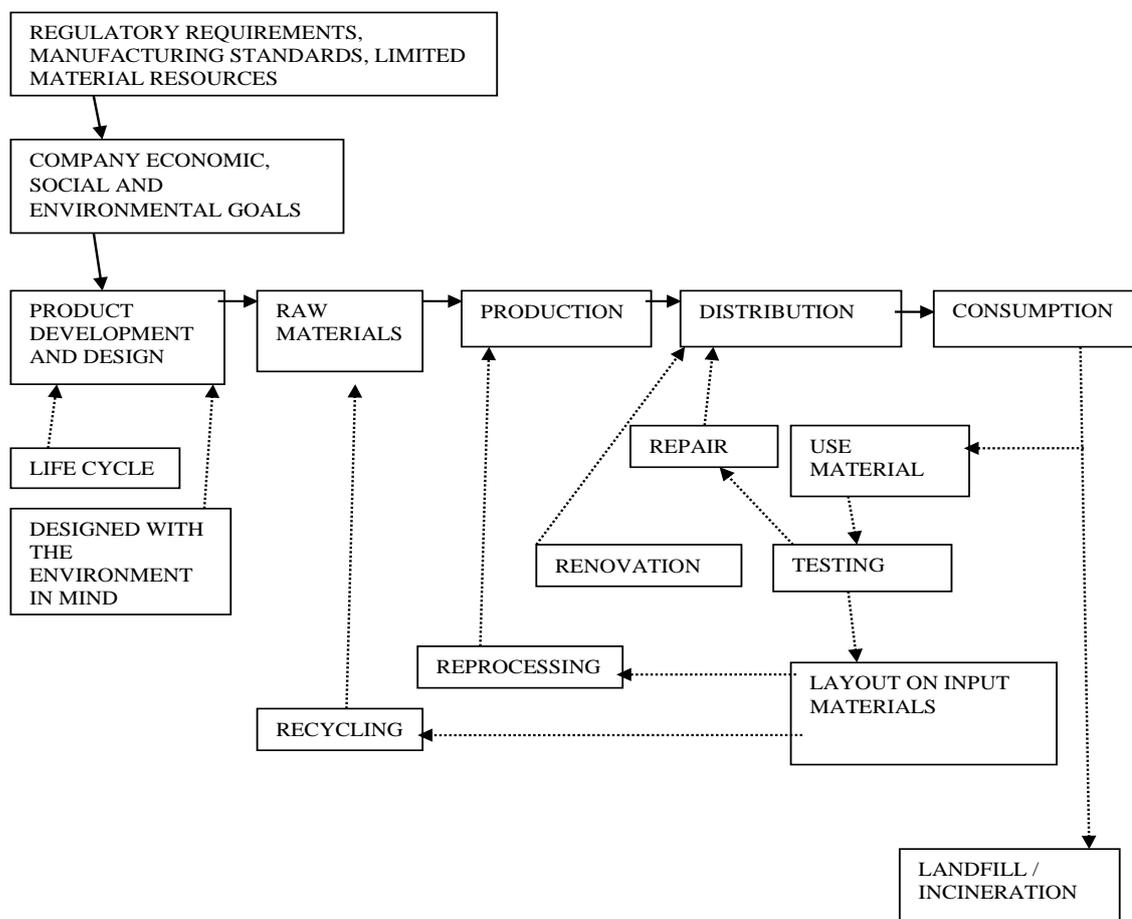
Unused biological products, which are exported to landfills are rotting or incinerated. This is another big risk. Rotting biological matter is a source of greenhouse gases that affect the warming the Planet Earth. The sea and the oceans are polluted by waste which is changing and destroying marine flora and fauna. Sustainable development and relationship balance of all its pages - economic, social (including ethics) and environmental aspects of life prosperous society requires a qualitative change in the conventional production chain.

3.2. Green production chain

The authors Braungart and McDonough (2002) in their book *Cradle to Cradle: Remaking the Way We Make Things* indicate how to change the way we produce. The transition to "circular economy" is a challenge to such a change. It inevitably operates with a circular production scheme, otherwise called "green production chain".

The results of scientific research and the environment raise the need changes. Not only in theoretical form (in the media is often debated). But change in the production chain using new modern technologies. This change is presented in green production chain. Economic objectives of the company in the production chain get into line with social (ethical) use and environmental (Henson & Humphrey, 2009). What is the essence of this approach? The diagram in Figure 2 shows that in all the various stages of the production chain is not just about production but also of the environment and its sustainability for future

Figure 2: Green production chain.



Source: Sustainable Development (April 2016)

What are the possibilities and opportunities, which can be reached to reduce the environmental impact of the production chain? One possibility is the green public procurement, as stated in Bratt et al. (2013) and their realization with the cooperation of the government. Sustainable product needs a commitment to sustainable public procurement (Dawson & Probert, 2007). Consumer pressure and their behaviour in this regard is very important determinant for the environmental behaviour of companies.

The European Union adopted a policy on 'green' public procurement and support sustainability. The EU spent on government contracts more than nineteen percent of GDP. The European Commission (EC) recognizes the potential impact of sustainable procurement environment and the economy environment. Changes are underway, however, that will likely give EU Member States greater latitude to take these environmental factors into account.

First, the EU's emerging voluntary 'lifecycle product footprint' methodology, although not yet required in procurement, may help agencies assess the GHG impact of the products they procure, at least where vendors voluntarily disclose product 'carbon footprints.' Second, the European Commission's efforts to overhaul its general procurement directives will give EU countries more leeway to account for upstream environmental impacts and "process and production methods" (PPMs). These steps will enable the EU to influence the market for green products by encouraging a shift towards upstream, supply chain carbon accounting (Hart, 2013).

3.2.1. Principle Cradle to Cradle – theory

The basic principle of Cradle to Cradle consists in the constant recycling of materials in the production chain in the manufacture in two separated cycles:

- Natural materials in the natural cycle, as is the case from time immemorial.
- Synthetic or technical materials in the technical cycle according to recent attempts (but the current system has many shortcomings).

Materials and products that are on the market today, largely not been and are not designed and developed with the idea of their repeated use. Another problem in the current system is the durability of packaging in general. On one side of the packaging (such as plastic) performs many important functions that are necessary for the development and packaging design to take into account. On the other hand, it is also important to consider that it goes to waste. Whether just recycle, refurbish, reuse or decompose on the input materials. The current way of 'recycling' or waste disposal is unnatural for the environment and for humans in the long term may not be sustainable.

3.2.2. Cradle to Cradle and practice

According to the principle of Cradle to Cradle is a problem in the development and design ('design problem'). The industrial revolution made it possible to search and produce cheaper products including quicker method of production. It has been forgotten that this approach in terms of long-term negative impacts on nature. At that time appeared that natural resources are infinite, the earth is rich. In the world are plenty forests and large quantities of raw materials. Developing products that would create a closed (green) circular system was not necessary. Today it is on the contrary necessary and unavoidable scenario. For example, water in the food industry (Sekoulov, 2002). For many companies this is too big a change. For others it is a necessary challenge and the future of mankind and the environment, it is life-giving need.

Develop and design products, design materials and technology so that they are destined for recycling (Cradle to Cradle, 2015):

- Combine natural and technical materials only so that they can be easily separated from each other.
- Be continually recycled without any loss in quality.
- Include only safe materials and chemicals that are not toxic or carcinogenic.
- Produce clean energy, renewable energy and CO₂-free.

Cradle to Cradle is basically how to create a better world. Improved circular economy and social responsibility, a world without waste, it is important for the sustainability and sustainable development. Cradle to Cradle is a system in which everyone can live in abundance. Any waste can be used - either for the biosphere (such as nutrients) or techno sphere (e.g., for re-processing). It's a perfect idea. Can it be realized? Certainly yes, but it requires a radical change not only in technology, but also in the thinking and attitude of the people.

3.2.3. Waste free farm in wineries

The term "Cradle to Cradle", "circular economy" and "green production chain" is not in our economic conceptual system completely known and used. Yet the content of these concepts are not completely unknown. Many primary producers, manufacturers and processors, for example, in the wine, a fruit, agriculture, the forestry or in certain industries, they use elements of green production chain, and they are implemented in practice (non-waste management). The following example proves it.

Grapes are one of the oldest cultivated crops (Bird, 2006). The versatility of its use in practice is an example of waste-free production chain. Evaluation of all products during processing which otherwise would be waste, bring not only economic but also social and ecological importance (Muñoz et al., 2014).

With regard to today's popularity of organic products, sustainable development and healthy lifestyles, this topic is attractive but not so widespread and used. It's a huge opportunity to produce and sell these products not only in the winery for wine. Expanding its product portfolio for alternative (cider, jams, oil and flour from the seeds of the vine and others), it can also bring to the wine regions of tourists who are looking something special and who are not satisfied with the current offer (Válka, 2012). And it comes to products that present the use of waste in the manufacture of wine.

Wastes generated in the manufacture of wine and their use in the production chain (skins, pips):

- Wine spirits - brandy produced by burning fermented grape must or grape pressings distillation of fermented crushed grapes (the best known are Italian grappa – e.g. the brand Alexander, Barbero, Paganini and others; and the French marc).
- Grapevine seed oil cold pressed from the seeds of red grapes. They are obtained mechanically from marc, separated and purified. When the optimum moisture content of 5-7% as they are pressed in special presses and then the product is filtered. Utilization is very wide - in nutrition, health care, cosmetics ad.
- Flour is usually made from the remaining ingredients of the cold oil pressing; it has a dark brown colour. Utilization is again, as in wine oil very wide. This helps to stabilize blood insulin and blood sugar levels and this is added due to the high concentration of active ingredients in standard flour in a slight proportion.

- Another important product from waste vine is anthocyanins, which is used as textile colourings. Extracts of red grapes are used as colorants in food industry.

The processed waste resulting from the production wines on additional products are used in food as health food supplements and forms the basis for cosmetic and pharmaceutical purposes. Furthermore, for the production of livestock feed (marc - solid residues, grapes) or for composting (Ruggieri et al., 2009). Addition to these products, which originate from the waste in the manufacture wine they are also exploited and processed wastes arising from certain parts of vine plants. Most often they are used as feedstock for bio-energy combustion and heating.

4. Conclusion

Sustainable development in a globalized world is dependent on many factors. Because the article analyzes the necessity of changes in the conventional production chain, it was necessary for this issue to obtain primary and secondary data. This is particularly the re-use of waste in the manufacturing process in its entirety (from development, including the design of the product to the final consumer. Processing and recovery of waste in the production chain in the chosen field will continue to be monitored and studied in practice, including the monitoring of waste in the form of food waste (Food Wastage). The final consumer has in the whole chain (directly or indirectly) an important position. Changes in the production chain are essential for sustainability in economic, social (ethical-responsible) and ecological direction.

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LABOR MARKET AND MIGRATION OF SKILLED WORKERS ABROAD

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Abstract: High unemployment rate in Slovakia is one of the most severe economic and social problems that has long prevented the full potential of the country's economic growth. The last time there was high unemployment, together with a decrease in employment, occurred during the economic downfall as a result of the global crisis. The adverse effects of the crisis mainly affected the category of disadvantaged persons. Structural and regional unemployment is also a persistent problem. Employment growth is a key issue for companies, however, this phenomenon threatens labour migration abroad which has, among other impacts, resulted in the loss of tax revenues and social contributions to the state budget. The situation in the labour market and the migration of the skilled workforce abroad are narrowly connected. People tend to migrate in periods of high unemployment and unfavourable economic development. On the one hand, migration does contribute to lower unemployment rate but also has a negative side: the loss of financial resources, which were originally spent on education, results in a shortage of required qualifications in many sectors and professions in the workforce. Because of this worrying emigration flow, we can consider the representation of a highly qualified workforce. There is also a trend in the growth of number of young people leaving the country to study abroad. It is true that science and research, innovation, information technology and especially educated people are among the priorities of each country. The aim of this paper is to identify and evaluate the development of ongoing problems in the Slovak labour market as well as indicate the qualitative extent of labour migration and the causes of changes in the structure of migrants from Slovakia.

Keywords: labor market, unemployment, migration, highly qualified emigrants.

JEL Classification: J40, J06, J64

1. Introduction

The labor market is a sensitive and vulnerable area of the Slovak economy, even recent years of the last crisis in Slovakia from 2009 manifested themselves more intensively when compared to the majority of EU economies, which was reflected in deepening the structural issues of the labor market and subsequently the unemployment rate. The newest economic forecasts confirm that there is a modest recovery in Slovakia in the context of low energy prices and very accommodating monetary policy. Despite the fact the unemployment is decreasing, the results at the labor market still manifest a persistence of big regional differences in economic growth and employment, as well is high long-term unemployment rate. As even the European

Commission states, unemployment continues to remain one of the biggest issues of the economic policy, also due to its structural character (Šikulová, 2014).

Growth of employment is a key question of societies (Borjas, 2015). However this phenomenon is threatened also by migration for work abroad, which except for other impacts also causes loss of the state budget and tax and contribution incomes (Neto & Claeysen, 2015). The situation at the labor market and intensity of migration for work abroad are closely linked (Hillman, Weiss, 1999). During high unemployment and negative economic development, people have a higher tendency to migration (Bismas, 2015).

Currently it is true that science and research, innovation, information technologies and especially educated people are the priorities of every country (Docquier et al., 2012). Because of these reasons the examination of brain drain is one of the highly current economic issues of the 21st century, even despite the fact that during the last economic and financial crisis there was a certain weakening of migration flows of highly skilled work force (Docquier et al., 2007), (Docquier & Rapoport, 2012), (Marchiori et al., 2013).

The goal of this paper is to identify and assess the development and persisting issues in the field of labor marked in the conditions of the SR, and point to the qualitative dimension of migration for work and reasons for changes in the structure of migrants from the SR.

2. Labor market trends

The economic growth of Slovakia after the crisis was one of the highest in the EU and the convergence continues, albeit at a slower rate. The economic production quickly recovered and in 2011 achieved levels, which exceeded values before the crisis, but the growth rate after the crisis is slower despite this fact. The annual growth of the actual GDP in 2012 – 2014 slowed on average to 1.8%, while in 2006 – 2008 the average was at 8.3%. In the last quarter of 2015 the economic growth was 4.3%, which was the best result for the past 5 years. Despite continuing economic recovery the production gap remained negative in 2015 and it is expected that it will be closed in 2017. The actual convergence towards more developed member states continues, albeit at slower pace than before the crisis. The actual GDP per capita in 2014 in Slovakia was approx. 75% of the EU level. The growth of actual GDP in 2015 increased to a level of 3.5%. The driving factor was major increase of investment activity related to the use of the EU funds and major growth of household consumptions (European Commission, 2016).

In the following years it is expected that the strongest growth impulse will remain the growing private consumption with contribution of household growth, growth of actual salaries, low credit costs and continued decline of energy costs. However there is a certain risk of export decline also in the car industry production, which can be caused especially by external factors (Klimko, Rievajová, 2016).

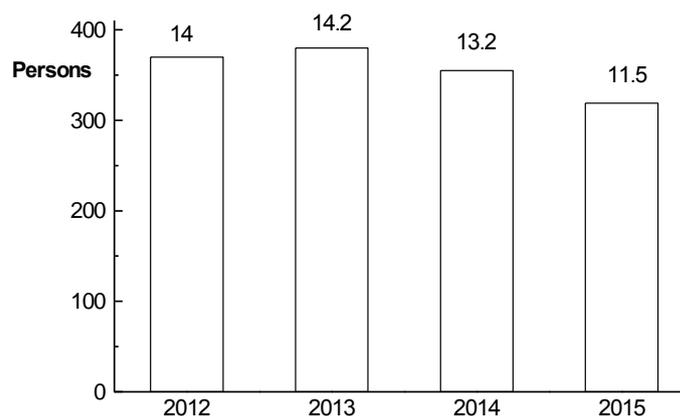
Only in 2014 there were signs of recovery also in the labor market, despite the fact that the economic recovery manifested already in 2011. This development again continued the weak link of employment and economic growth, the reasons of which are connected also to the long-term structural issues of the labor market to a high extent (Lubyová – Štefánik et al., 2015, p.18).

The newest trends of the labor market are partially a result of cyclic movements and especially of the deep economic crisis, however they are also caused by structural and institutional issues of the labor market affecting the economic activity and performance of the labor markets. In the last three years after the strongest manifestations of the crisis subsided,

Slovakia spent a great amount of effort to remove macroeconomic imbalances from previous years. However there are still many problematic areas and new challenges keep arising (Rievajová et al., 2015).

High unemployment in Slovakia is one of the major economic and social issues, which long-term prohibits the full implementation of the growth potential of the economy. The last biggest growth of the unemployment rate linked with the decrease of employment has manifested during the economic slump due to the global crisis in 2010, when from the active population almost every sixth person was looking for a job and the average annual rate of unemployment reached 14%. During the following 4 years the rate of economically active persons looking for a job was above 13% (Graph 1). Neighboring countries of the Visegrad four were doing significantly better, Hungary with the closest development of unemployment better by 2 – 3 percentage points compared to Slovakia, the Czech Republic recorded post-crisis rate of unemployment 5 – 6 percentage points lower when compared to Slovakia (Lubyová – Štefánik et al., 2015, p. 17).

Figure 1: Development of unemployment (in thousands of people and in %)



Source: SO of the SR, own processing.

As stated in the Country Report for 2016 (European Commission, 2016), structural unemployment, which is also the reflection of strong geographical differences, continues to represent a key political issue. Significant geographical differences at the labor market, which are enhanced by low interregional mobility of the work force contribute to the fact that the country has one of the highest long-term unemployment rates in the EU. The results of the Slovak labor market still cannot be considered satisfactory. Certain groups of the population like e.g. low skills workers, young people and graduates, the Roma and mothers with little children are especially vulnerable. Unemployment is also focused in center and in the East of the country. Low sensibility of unemployment to increase of actual salary only intensifies fears of the extent of the structural unemployment.

Slovakia is one of the countries, which fight especially with a high rate of long-term unemployment. This effect contributes significantly to the negative development of public finances, but also reflects possible insufficient use of production capacities in the economy. However high unemployment rate is not linked only to insufficient demand for work force, but it is also the result of dissonance between them (Workie Tiruneh – Štefánik et al., 2014). In

2014 the long-term unemployment rate (more than 12 months) was one of the highest in the EU (9.3% compared to 5.1% in the EU-28). Two thirds of the unemployed are long-term unemployed and majority of the unemployed don't have a job for more than two years, while the rate of very long-term unemployment is 6.6% (more than double when compared with the EU average). Long lasting unemployment represents significant risk for low skilled workers and young people. Slovakia has one of the highest rates of unemployment of low skilled workers (20 – 64 years) of the entire EU (36.9% compared to 16.3% in the EU-28 in the third quarter of 2015). Low skilled workers also represent a high percentage of the long-term unemployed (24% of the long-term unemployed are low skilled workers compared to 4% of low skilled workers in employed population).

Regional differences in employment are still significant. Despite a certain progress achieved in removing these differences, in 2015 unemployment in the Bratislava region (5.34%) was still less than half of the Prešov region in the East of Slovakia (15.5%). The main reasons of this phenomenon are a combination of low growth and low creation of jobs in the center and East of the country, as well as insufficient regional mobility of the work force to areas with the highest number of open job. Factors prohibiting higher mobility include insufficient transportation infrastructure, high travel and accommodation costs compared to average salary, as well as insufficiently developed accommodations rental market. The situation is intensified by an insufficient infrastructure and business environment prohibiting the inflow of investments to the less developed regions and creation of jobs.

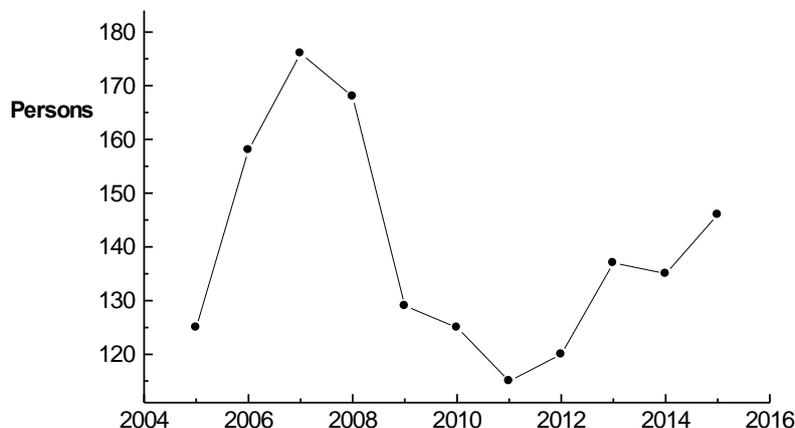
In 2015 Slovakia passed a law on supporting regions with high unemployment, which is based on existing policies related to the support of investment, social housing and development of infrastructure. With a goal to support resettlement allowance for work“ for unemployed persons, which find work more than 70 km from their residence (Klimko, Rievajová, 2014).

3. Migration for work abroad

Trends in the Slovak labor market are affected also by migration of Slovaks for work abroad. On one hand this migration helps decreasing the unemployment rate (Tupá, 2013). But on the other hand it has its negatives: in some sectors and professions there is a shortage of worker force with required skills (Harnushek & Woesmann, 2008). Furthermore since the second half of the 1990's we are observing a negative trend in the structure of migrants from the Slovak Republic – the share of highly educated workers who leave Slovakia for work is increasing.

According to the OECD statistics Slovakia is gaining on leaders of economic migration; we are in the ninth spot among the developed countries of the OECD, from which people are leaving more and more for work abroad. The number of Slovaks working abroad is in the range 130 – 148 thousand (Graph 2) for the past three years. Most of the Slovaks left for work abroad during the pre-crisis years 2006 – 2008; decrease occurred after the onset of the global crisis, which affected the target countries. In recent years when the economic recovery began this trend increased again. Especially this fact is also one of the indicators of decrease of unemployment. The greatest number of people is leaving for work to the CR and Austria, especially due to higher salary. The Prešov region has the greatest number of people leaving, which is caused by higher unemployment and poverty of this region.

Figure 2 - Number of Slovaks working abroad (in thousands)



Source: SO of the SR, own processing.

In terms of emigration of highly skilled work force from the SR and its impact on the society, some experts estimate, that the number of university graduates leaving each year abroad is in the range of 7 – 10 thousand persons (which is 1/4 up to 1/3 of all university graduates, and which is significantly higher rate than in neighbouring countries). Except for other, this fact leads to weaker growth of GDP and slower increase of the population's educational level. Thus the brain drain from the Slovak Republic affects also its overall economic development (Divinský, 2014). Individual authors state its ambiguous impact on the Slovak economy and society. On one hand they observe significant remittance, which the emigrants are sent, respectively bring home. On the other hand they warn about the negative consequences manifesting in the social area, which result from the radical restriction of contacts with friends, contacts or local community (ÚSŽS, 2014). Significant negative effects are also linked with difficulties the emigrants are facing during their social and economic reintegration after their return home.

Since students are certain precursors of highly skilled migrants, an integral part of exploring the brain drain is also the issue of developmental tendencies of the citizens of the SR studying abroad. In this context we state that since 1998 Slovakia is recording an unprecedented growth of rate of its students abroad. According to the OECD data their share in 1998-2012 multiplied ten-fold (from 3.4 to 36.2 thousand). This increase is related also to the constantly growing share of students studying in the Czech Republic (Bahna, 2015). According to the OECD in 2014 15% of Slovak students studying at a university studied outside of their country. Among the OECD countries only two countries had a higher percentage share of its students at foreign universities Island and Luxemburg.

Empirical studies dealing with emigration of highly educated people from Slovakia consider the main reasons of this phenomenon especially the quality of grants to science and research, level and method of organizing scientific research, transparency in awarding research grants, career possibilities of young scientists and equipment of scientific facilities (Kostelecká, 2007).

As stated by Bleha and Vaňo (Bleha, Vaňo, 2007), even if the quantitative level does not confirm predicted very high numbers of work emigrants after the Slovak Republic joined the

European Union, it is important that this is population at the age of highest fertility, which in the end negatively affects the age structure of the Slovak population, Except this we have to consider also the qualitative level of said problem, which is brain drain. This is confirmed by the data from table 1.

Table 1 Comparison of the educational structure of the indigenous population and emigrants from the SR (25-64 years) in 2015, (in %)

	Working in SR	Emigrants
Primary and lower secondary (levels 0-2)	8,6	12,6
Higher secondary and post secondary (levels 3-4)	72,4	60,7
Tertiary (levels 5-8)	19	26,7

Source: Eurostat: ec.europa.eu/eurostat

We consider the representation of educated people among Slovak emigrants to be alarming. In 2015 their share on the total number of emigrants from Slovakia was as much as 27% and was significantly higher than the share of working with tertiary education in the Slovak Republic (19%).

There are several reasons because of which our experts decide to leave for work to another country. Notable among them is low financial appreciation of several significant professions like e.g. doctors, teachers or research workers. Other major reasons are major gaps Slovakia has in the support of beginning small and medium size entrepreneurs. In case of presence of a suitable business environment a young person could find a work more easily, which expect for financial appreciation would bring him or her a feeling of internal satisfaction, or he or she could start a business. Young people have a lot of new ideas and if they can't implement them in Slovakia, they frequently leave abroad (Dustmann & Gorlach, 2016).

We consider the insufficient quality of some universities in Slovakia also one of the factors, which lead to the fact that the graduates have issues when looking for a job. Slovakia is marked by a high number of universities (in relation to its total population), which is frequently the reason of degradation of a university diploma. This leads to a situation, when many outstanding graduates have issues in the labor market and leave abroad, where frequently they hold inadequate jobs.

At the turn of 2014/2015 the Sociological Institute of the Slovak Academy of Sciences in cooperation with the Department of Social and Economic Sciences of the Komensky University carried out research with interesting results – entitled Brain drain 2014, which resulted in the following conclusions (Bahna, 2015):

- Students studying abroad include more and more graduates of bilingual secondary schools.
- Slovaks studying abroad come usually from families with above the average level of human capital. Almost half for them come from families, where both parents have university education. Compared to university students in Slovakia, this share is threefold.
- Main reasons when deciding to study abroad are the reputation of the foreign school and belief that a diploma from a prestigious university is a means to getting a better job.

An important result of the research is also the discovery of what decides about the fact if the graduate of a foreign university is coming back to Slovakia upon his or her graduation or not:

- if both parents have university education, there is a higher chance the child will remain abroad;

- parents with only a single child desire for their child to come home the most;
- on the other hand parents of children, who studied at bilingual secondary school don't desire for their children to come back home.

4. Conclusion

Development at the labor market of the Slovak Republic is the key question of short-term as well long-term aspects of the development of the Slovak economy. Employment and unemployment indicators are at top positions in assessing the social situation of the population and in perceiving the development of the standards of living of the population. Main development trends at the labor market can be considered in macroeconomic terms as optimistic. Development predictions indicate that the positive trend should continue in coming years. Investments in human capital and reforms of systems of education and professional training focused on results are part of the necessary effort for restoration and creation of jobs, achieving sustainable growth and keeping qualified workers and graduates in Slovakia. The issue of migration of qualified work force and related brain drain is one of the biggest problems of the 21st century and it is manifested also in Slovakia. Examining the links between unemployment and emigration for work abroad points to a very tight link.

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PREDICTIVE ANALYTICS IN THE GLOBAL VALUE CHAIN

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Abstract: Globalized Companies are faced with more and more data. These are collected by their own or externally available data sets, time series and information. Most of these data are unstructured and have different types and formats. Last years IT-experts are talking about „Big Data“ as a big issue to handle these data and take an advantage out of them. Predictive Analytics is the most exiting part of „Big Data“. By using the unmanageable sum of historic and new data, stochastic algorithms are able to recognize patterns and transform them into future probabilities and forecasts about events and outcomes. The value of forecasts is very differently and regarding to the business model of the companies and the relevant time horizon for reactions. A lot of companies over all branches have the opportunity to enrich their global value chain with completely new products and services based on a deeper knowledge of their customer and their markets by using Predictive Analytics. The defiance for all companies will be to find out what will be a value for their customers, what kind of data do they have and how to transform an idea into an autonomous acting system. With our publication we want to show the need and the opportunities to use Predictive Analytics in international companies and make Business Development departments sensitive about it to generate new revenues and new services. Predictive Analytics is part of economic research and needs a overall understanding of global business.

Keywords: Predictive Analytics, Business intelligence, Big Data, forecasting, business development, software

JEL Classification: M15, O32, C87

1. Introduction

We are talking about a “history of silos” (Gil & Song, 2016), that leads to the need of a corporate strategy and working organization structures. Last years we saw a hugh number of business cases based on “Big Data” and prediction of behaviour and trends (Jain, 2016). This cases do not all lead into a value generating project for the companies. Most of these projects did never work. Most companies have no integrating strategy for new data driven ideas and their realization. Companies locate Predictive Analytics in the IT departments and do not understand it as a great opportunity for a company wide initiative. Therefore for most companies it is hardly to generate and preevaluate business cases, to find and hold the best potential employees (Harris et al, 2010), make the most of given resources and bring the potential idea to a value generating system for internal or external use.

We therefore want to figure out the problems in making data driven services. We want to figure out the need of management attention and for a decision to define the scope of wished activities leading to a organization structure valueing Predictive Analytics based on a global corporate strategy.

2. Definition of Predictive Analytics

Predictive Analytics is the branch of data mining concerned with the prediction of future probabilities and trends. The central element of Predictive Analytics is the predictor, a mathematical variable that can be measured for an individual or other entity to predict future behavior at a high level of granuarity. It can be used to forecast future probabilities with an acceptable level of reliability. In predictive modelling, data is collected, a statistical model is formulated, predictions are made and the model is validated (or revised) as additional data becomes available. Modern software systems are using the potential of advanced artificial intelligence like „neural networks“, „support vector machines“ or „Bayes Networks“ (Bo-Juen et al, 2001). Most advanced systems like MRI META-AI integrates more than one artificial intelligence and make them work automatically to generate forecasting models in every field of business or science imaginable (Hawking et al, 2014). Predictive Analytics are applied to many economic research areas. Predictive Analytics is the value generating part of a “Big Data” initiative. Final forecasting models are mostly computed steadily and relieve a human dicider. Extentent with so called “actors” or “decision makers” it’s possible to operate automatically acting software systems without the need for human interaction . Regarding to the field of use and the choosen technology, most important for the scope of activity is the forecasting quality and the horizon of time, needed for the decisions. If a company has to evaluate if there will be a value in using a autonomous system compared with the activity of a human beeing, there are four indicators to look for: The number of Various Decisions, the existance of Time-criticalness, the number of various Dataformats and the Level of Automatisation may lead or not to the use of Predictive Analytics (Andrews, 2015). This our points may help managers to identify ideas and fields of operations, potentially qualifying for new business models based on data and prediction. As a further step you have to look for the potential reaction time (decision maker) and the quality of forecasting in these given time horizon. The quality and therefore the value of a Predictive Analytics use case is always a question of the time and best forecasting horizon (Scharlach & Goffre, 2013).

Predictive Analytics is often defined as predicting at a more detailed level of granularity, i.e., generating predictive scores (probabilities) for each individual organizational element. This distinguishes it from a simple forecasting model. Predictive Analytics always includes what to do with the forecast, how to improve the quality of forecast and decision. For example, Predictive Analytics technology that learns from experience (data) to predict the future behavior of individuals in order to drive better decisions. In our opinion the most important question for using Predictive Analytics is the time horizon of reaction compared with the horizon of the highest forecasting quality (Lechevalier et al, 2015).

3. Best Practice Predictive Analytics

There are a lot of ideas coming up with the momentum of “Big Data”, Social Media and the overall availability of individual data. The best working ideas and business cases are identified in the following fields.

With “Predictive Maintenance” new services and systems are focussing on making the best of given resources and fasten up industrial services. Maintenance planners for example are faced with the challenge of ensuring the maximum machine availability. They have to keep the costs for maintenance and repairs to a minimum. The idea here is to use data from the sensors monitoring the machine conditions or human conditions (Combs et al, 2016). They are mostly automatically reviewed and Predictive Analytics picks up any pattern to indicate a possible fault or shows probabilities of a stoppage (Ngiri & Johnson, 2008). Therefore a stoppage will be recognized earlier and corrective measures can be planned in the most effective way.

In the field of “Product recommendation” as part of effective marketing activities, Predictive Analytics is used to help online merchants. These merchants need precise product recommendations for their customers to increase sales and conversions. A good recommendation leads the potential customer to the products they probably need and want to buy (Maier, 2015). A running Predictive Analytics system dynamically generates recommendations based on the known or anticipated purchase habits of a particular customer or a group of customer and then displays the recommendations directly or sends emails like Amazon does. The systems normally learn over the time, including preferred categories, favourite brands and even specific colours and sizes (Reichheld & Scheffer, 2014).

This is not to be confused with the business cases based on “Dynamic Pricing”. As the normal business mission, merchants need to know the best potential prices for their goods to maximize the revenue and/ or to maximize their profits. With the use of Dynamic Pricing the prices are not more firmly set, they will be calculated individually. Predictive Analytics systems are here used to test the price sensitivity of individuals or groups to forecast the optimal obtainable price for them (segmented pricing) or the best price obtainable over a period of time (peak pricing). Price changes will be based on changing circumstances, such as increases in demand at certain times, types of customers being targeted or changing marketing conditions (Maier, 2015). This new pricing strategy is especially common in certain types of business, particularly those providing a service such as airlines, but also can be used with product pricing.

An example for cost reduction and efficiency is known as “Predictive Policing”. Authorities need insight where, and at what times, police patrols should patrol or maintain a presence, in order to make the best use of given resources. Predictive Policing uses data on the time, locations, circumstances and nature of past crimes (PredPol, 2016). A prediction system then generates the highest probabilities of detecting or preventing future crimes. This technology is described in media as “stopping crime before it starts”. The effectiveness of predictive policing was recently tested by the Los Angeles Police Department, which found its accuracy to be twice that of its current practice (Zeng, 2015).

4. Corporate Strategy for Predictive Analytics

When we are talking about the strategy, we have to look back to the lessons learnt from existing projects. If you talk with managers of corporates and even middle sized companies, there are a lot of „PA Cases“ in all divisions and potential ideas to use data for new services and products. There is always a need for new ideas and new revenues, but, how will a company

find a value generating case? How to set up these projects? What are the tools to evaluate the mathematical model quality and preevaluate the economic value of the case? If the management sees the possibility to be a „data driven company“, they should think about an integrated strategy. They must define the wished scope of potential activities and then the requirements to the Predictive Analytics Strategy (Ringsdorf, 2014). To find the best Strategy they should know the possible Organization Structures and technical requirements leading to proper projects. The five important questions are: What are possible cases and do company have tools to pre-evaluate the outcome? Are there qualified employees and if not, how to find and hold them? What are the best forecasting models or existing software systems? Is there a Data acquisition and infrastructure guideline, how to find and provide data efficiently? Are there interfaces for using the forecasts or how to implement the model?

5. Data Acquisition and Data Infrastructure

Data acquisition is the way to find and source the right, needed data at minimum cost. It's defined as the search and sourcing of the required data internal and external. The development of Predictive Analytics models and systems need a fundament of good data. Existing data are existing hosted by service provider and vendors like Bloomberg or Deutscher Wetterdienst. The Data Infrastructure helps to provide the data inhouse technically easy. It's more technical and is based on modern databases like so called No-SQL. The requirements of the employees is to concentrate on their core work, to model or to code the software needed.

6. Organization Structures to fit best for Predictive Analytics

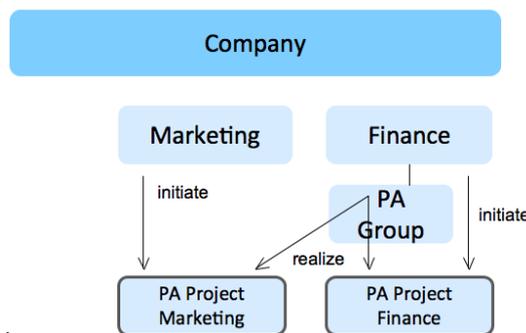
An organizational structure defines how activities such as task allocation, coordination and supervision are directed toward the achievement of organizational aims. It can also be considered as the viewing glass or perspective through which individuals see their organization and its environment. An organization can be structured in many different ways, depending on their objectives. The structure of an organization will determine the modes in which it operates and performs. Organizational structure allows the expressed allocation of responsibilities for different functions and processes to different entities such as the branch, department, workgroup and individual. Organizational structure affects organizational action in two big ways, first, it provides the foundation on which standard operating procedures and routines rest. Second, it determines which individuals get to participate in which decision-making processes, and thus to what extent their views shape the organization's actions (Date, 2016). The right Organization Structure therefore is always regarding to the following four questions. The decision of the scope of activities as the question between a strategic or only an operational approach. Further it's the question between the use of a broader domain knowledge or a special domain knowledge, which is a “sticky” information in every department. It's a question of making knowledge and ideas mobil over departments and hierarchies and last it's a question of developing business cases. Background for our work on this paper is these history of Predictive Analytics „silos“. If it was not the IT department coming up with an use case, there has generally been specific business groups or departments like marketing, risk, finance etc that have advocated and adopted Predictive Analytics ideas. This is what we can call only “operational”. As a result of these behaviour, analytics efforts, resources, and applications tend to be scattered across the whole organization. The business divisions have also invested in tools and developed analytical techniques and procedures, with a focus on solving business problems specific to their own

group and not on a “strategic”, corporate level. We found five potential Structures for Predictive Analytics that fundamentally fit with the needs of corporates.

6.1. Functional Predictive Analytics Team

A Functional Predictive Analytics Team is defined as an operational part of one special business division. These Team than works for all other divisions ideas to realize their Predictive Analytics projects. The Team will be open to all divisions, but it generates special knowledge only in the own one. Other division might think, that the Predictive Analytics Team is not able to handle the special issues. The realization and project management will be done by the Predictive Analytics Team.

Figure 1: Organizational structure of a functional predictive analytics team

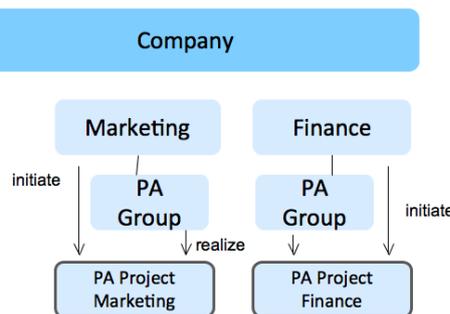


Source: own diagram

6.2. Decentralized Predictive Analytics Teams

Decentralized Predictive Analytics Teams will be operational parts of the special divisions. All of the Teams will work only for the special division to realize their special Predictive Analytics projects. With these special knowledge generated only in the own divisions it will be hard to integrate an overall, company wide strategy.

Figure 2: Organizational structure of a decentralized predictive analytics team



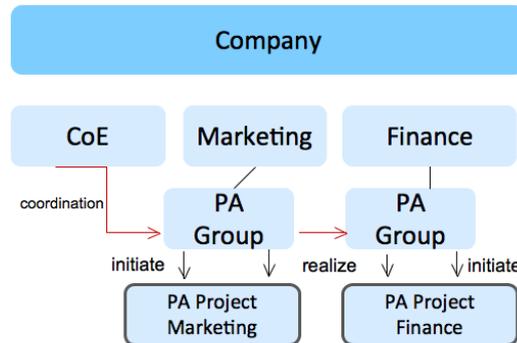
Source: own diagram

6.3. Predictive Analytics Center of Excellence

A Predictive Analytics Center of Excellence will be a Stand-Alone structure. Predictive Analytics will be taken place as a strategic part in the whole company. Specialized domain knowledge will be possible while groups are integrated in the special divisions. As a big benefit in these structure knowledge and idea transfer via a controlling and coordinating Center of Excellence will be enabled. The Predictive Analytics Groups are working together to find new ideas and initiate projects in their special divisions. Use cases and concepts consider the whole

company and can be discussed and solved with the center. This structure has the biggest scope and the widest area of integration and needed resources.

Figure 3: Organizational structure of a predictive analytics center of excellence

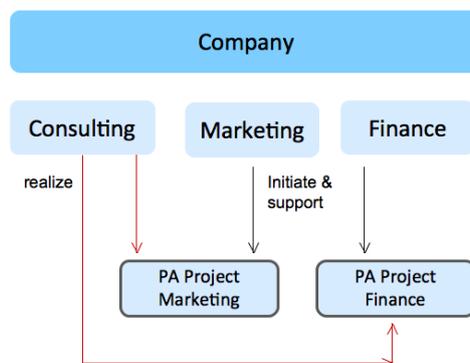


Source: own diagram

6.4. Internal Predictive Analytics Consulting Team

A Internal Predictive Analytics Consulting Team can take place to realize and support cases. Predictive Analytics will here be seen as a strategic part in the company. The Consulting Team needs a broad knowledge over all divisions and potential issues. Ideas and knowledge transfer in the team leads to a highly competitive team with broad knowledge and deep competence. But the divisions need own ideas, they have to initiate and support the consulting team. The Predictive Analytics team than realizes in technical matters.

Figure 4: Organizational structure of a predictive analytics center of excellence

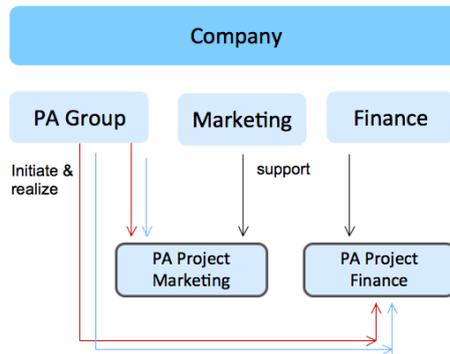


Source: own diagram

6.5. Centralized Predictive Analytics Group

One Centralized Predictive Analytics Group will take place as a division of its own. Predictive Analytics will be seen as a strategic part in the company. The Predictive Analytics Group needs a broad range of knowledge over all divisions and issues. The ideas and knowledge transfer in the Group leads to a highly competitive team with broader knowledge and deep competence. The Group is looking for use cases and initiates them. The Group then realizes the case with support from the special division.

Figure 5: Organizational structure of a centralized predictive analytics group



Source: own diagram

7. Conclusion

As a fact, global every single day in 2014, more than 2.5 quintillion bytes of data are created by companies and private, with 90 percent of the world's data created only in the past two years alone. Videos, pictures, feeds, blogs, messages, machine data (sensor information) and other types of structured and unstructured data appear every day. The global production of this data will be 44 times greater in 2020 than in 2009. The volume of business data worldwide is expected to double every 1.2 years. "Big Data" and Predictive Analytics will be important to outperform. We figured out the need of a corporate strategy to handle this needs. Most important part of these strategy will be the best fitting organization structure. The structure will enable to initiate, evaluate and realize projects in the most effective way. The structure and the communication of the company should display the importance management attends to Predictive Analytics.

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DO RECENT INTERNATIONAL CRISES REPRESENT THE “END OF GLOBALIZATION”?

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Abstract. Globalization (henceforth, also G) is a process, which has been lived and perceived, defined and understood in various ways. And since its first mentions in the 1960s through its “discursive explosion” in the 1990s, virtually no one questioned its existence. A global transformation – the coming closer of various economies, societies, and cultures seemed to be inevitable. However, in the past years, the world has witnessed various crises, which some interpret as the “end of globalization”. E.g. the 9/11 terrorist attacks on the US; the post-2008 economic crisis; the unsuccessful Arab Spring; the conflicts in Syria, Libya, or Yemen; the conflict in Ukraine and colder relations between Russia and the West; the emergence of the Islamic State; the terrorist attacks in Paris, Brussels, and elsewhere; the migration crisis in Europe; or recently the “Brexit”. The paper discusses whether G really could be “ending”. It uses the methods of content and discourse analysis to search for claims of the “end of G”. It analyzes various types of texts, namely magazine/newspaper articles, academic books and journal articles. The time-range of analysis is approximately the past fifteen years. The conclusions present the prevailing discourse, but necessarily not the author’s opinion. Since G is a social, human-made process, its reflections (discourse) could also indicate how it is evolving in reality.

Keywords: globalization; international crises; end of globalization; content analysis; discourse

JEL Classification: F02, F5, F60

1. Globalization and Its Study

In the past decades, globalization has become many things; among other, “the leitmotif of our age”, “an essential object in the study of the contemporary world”, “the central thematic for social theory”, “epochal transformation”, “epochal shift”, “paradigm shift”, “the end of the world as we know it”, or “a constant hammering of the ‘new’” (Lang, 2006, 899-900).

This paper distinguishes between G as a social reality and as a reflection of that reality. As e.g. Fiss & Hirsch (2005, 32) suggest, G is both an historical trend that can be measured by structural changes and a symbolic discourse. Also Dirlik (2000, 5-6) distinguishes between G as a descriptive term referring to historical process and as a new way of viewing the world, a paradigm or discourse.

To discuss if G could be ending, this paper will focus on the discourse. There have been attempts to trace the real-world development of G, e.g. by “measuring” it³⁴. But G, unlike natural phenomena, is not a thing “out there”. It is a social creation, which is constantly

³⁴ Various G indexes are discussed e.g. by Caselli (2008) or Raab et al. (2008).

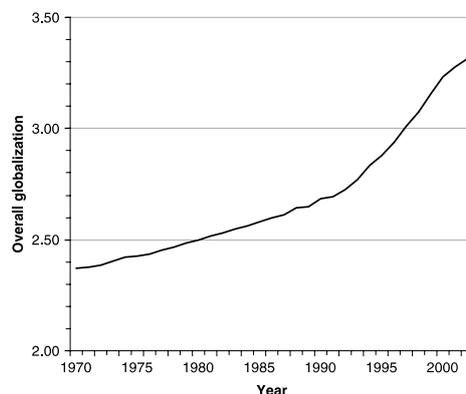
(re)constructed through our thinking and acting. This is recognized by Poppi, quoted in Al-Rodhan & Stoudmann (2006, 6): “More than any other concept, G is the debate about it.” Also Fiss & Hirsch (2005, 29; 30; 32) claim that: “Large-scale transformations such as ... G are marked by discursive struggles over their social and cultural impacts ... We use the example of G to show how discursive framing of G presents a crucial struggle over the legitimacy of change, and that this framing is the outcome of a process that combines both material change and symbolic construction ... Because the material facts at hand are ambiguous, the public discourse that develops to support and legitimate particular interpretations of these ambiguous data is of great importance.”³⁵

1.1. Globalization as Process/Trend and Its Beginning

How this paper understands “globalization”? As a historical process, trend, or force, which encompasses various dimensions of human existence. Most authors (e.g. Caselli, 2008, 384; Dirlik, 2000, 6; Guillén, 2001, 236; Raab et al., 2008, 599; Strand et al., 2005, 45) mention the economic, political, social, and cultural dimensions of G.

The beginning of it is a matter of debate. It has been identified at virtually any moment in history, from the origins of mankind to the 1990s (cf. Dirlik, 2000, 10; Guillén, 2001, 237-238; Lang, 2006, 901; Strand et al., 2005, 49-50; The Economist, 2013, A; B). E.g. Dirlik (2000, 13) presents Robertson’s five phases of G, from the 15th century to the 1990s.

Figure 1: Average Globalization All Over the World



Source: Raab et al., 2008, 609

But as Lang (2006, 901) points out: “This question [and answer] hinges on the conceptualization of the key idea.” Strand et al. (2005, 49-50) suggest that “the only consensus on the timing of G seems to be that it has accelerated and deepened since the 1990s.” This is confirmed e.g. by the results of Raab et al.’s (2008, 609) research on a comprehensive index of G – see Figure 1.

1.2. Globalization as Concept and Its Definition

Globalization is studied within various academic fields and by researchers such as social theorists, world-society scholars, comparative sociologists, economic historians, management

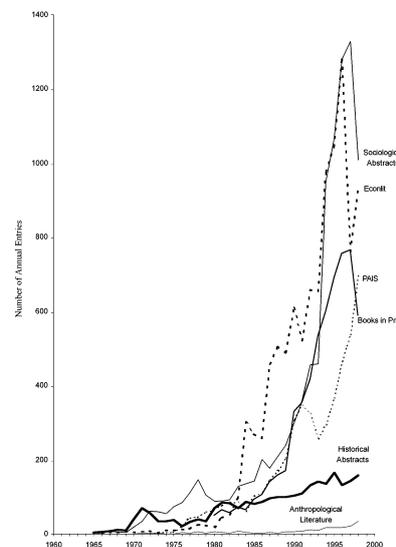
³⁵ This paper does not perform a discourse analysis as characterized/used e.g. in Hay & Smith (2005), Steger & Wilson (2012), or in the Symposium: Discourse and Content Analysis (2004). Due to constraints on the length of paper, it was not possible. Rather it uses content analysis and overviews the discourse analysis recently published in the Web of Science database (WOS) and/or most cited.

scholars, political scientists, or anthropologists (cf. Caselli, 2008, 384; Guillén, 2001, 255). But apart from academics, it has been regularly used by journalists (cf. James & Steger, 2014, 422). It has been characterized as an extraordinary but complicated concept or “one of the most important concepts for understanding the passage of human society into the third millennium” (James & Steger, 2014, 417; 418).

Al-Rodhan & Stoudmann (2006) list 114 definitions of G, both narrow and exclusive, as well as broad and inclusive, complex and multifaceted. Many of them refer to questions of economics (67 of 114), which Strand et al. (2005, 45) confirm, but often the definitions involve also political and social aspects.

However, after the decades of debate, G still “lacks a clear and intersubjective definition” (Strand et al., 2005, 46). G is “a grand contest of social constructions and an ‘umbrella construct’” (Fiss & Hirsch, 2005, 32) or simply an “essentially contested concept” (cf. Guillén, 2001, 235). Strand et al. (2005, 46) explain why: “To operationalize many social concepts is to participate in debate about their meaning and significance ... G – as a social science concept – is distended with such a myriad of meanings, units of analysis, and normative convictions that the concept’s meaningfulness must be questioned ... As a contested concept, G is part and parcel to a political process whereby the term is used by actors for different objectives ... Those who use the term often are not only describing a situation, but are also – implicitly or explicitly – promoting a particular political position,” which also Dirlik (2000, 20) confirms.

Figure 2: *The Literature of Globalization*



Source: Guillén, 2001, 241

According to Guillén (2001, 238), the English term “G” was first used around 1960 in its world-wide sense.³⁶ It seems to be much later than the previously discussed beginnings of G. However, it becomes obvious once we acknowledge that “‘G’ came to be associated with processes that were—and still are—changing the world in fundamental ways. Language use had to catch up to the world of material practices and lived meanings” (James & Steger, 2014, 432). Paradoxically, after the late first appearances, literature on G has increased faster than

³⁶ Al-Rodhan & Stoudmann (2006, 6) claim that it first appeared in Webster’s dictionary in 1961. James & Steger (2014, 418; 425-429) document that “G” had been in use in English in various senses at least as early as the 1930s.

any other indicators (cf. Guillén, 2001, 240) – see Figure 2. Also Fiss & Hirsch (2005, 38) document the discourse in articles and press releases and confirm the trend.

Figure 3: The Use of “Globalization”, 1930-2008



Source: James & Steger, 2014, 419

Finally, the acceleration and deepening of the G process since the 1990s has been accompanied by a “discursive explosion of ‘G’” in books (James & Steger, 2014, 419) – see Figure 3. But a careful eye can see a deceleration or stagnation in the trends sometime after 2000.

2. The “End of Globalization”?

Interestingly, in the 1990s, when G flourished, a similar trend can be observed regarding the idea of the “end of ...”. According to Strand et al. (2005, 56), by mid-1990s, over 150 books with the “end of ...” in title had been published. The symbol and a beginning of this trend was the Fukuyama’s “end of history”, which, however, signified a positive trend in G, at least concerning its prevailing understanding. But in the following years, the world witnessed various crises, which some interpreted as the “end of G”. E.g. the 9/11 terrorist attacks on the US; the post-2008 economic crisis; the unsuccessful Arab Spring; the conflicts in Syria, Libya, or Yemen; the conflict in Ukraine and colder relations between Russia and the West; the emergence of the Islamic State; the terrorist attacks in Paris, Brussels, and elsewhere; the migration crisis in Europe; or recently the “Brexit”. Media have published headlines such as: “Britain just killed G as we know it” (*Washington Post*); “It’s the end of G as we know it” (*Quartz*); or “Have we reached the end of G?” (*CNN*); “Brexit – the end of G?” (*Deutsche Welle*); but also “Brexit Won’t Stop G” (*Bloomberg*); or “Brexit Doesn’t Mean the End of G” (*Huffington Post*).

The following subchapters analyze the content and titles of magazine/newspaper articles, academic books, and journal articles. The final chapter overviews the discourse analysis recently published papers listed in the WOS and/or most cited and, thus, contextualizes the following content analysis.

2.1 The “End of Globalization” in Magazine/Newspaper Articles

While searching “globalization” in Google – News returns 305000 results, searching the “end of G” returns only 6770 results³⁷, i.e. the idea is discussed in some 2,2 % texts. A more

³⁷ All searches were performed on 18 September 2016.

nuanced search can be performed by the Summon Service by ProQuest³⁸, which enables to search only magazine/newspaper article titles. The search for “G” returns 32776 results and the search for the “end of G” only 51 results, which are specified in Table 1.

Table 1: Magazine/Newspaper Article Titles Containing the “End of Globalization”

	Disciplines	Years of publication
51 results	business (4), economics (1), engineering (2), history & archaeology (1), international relations (3), law (1), philosophy (1), religion (1) ³⁹	2016 (16), 2015 (3), 2014 (2), 2013 (1), 2011 (1), 2010 (8), 2009 (6), 2008 (2), 2006 (2), 2005 (2), 2003 (1), 2002 (2), 2001 (3), 2000 (2)

Source: Author, based on search in the Summon Service

The numbers suggest that: The “end of G” is discussed most in the disciplines of business and international relations; it peaked twice – in 2009-2010 probably due to the economic crisis and in 2016 probably due to the “Brexit”; it did not appear at all before 2000⁴⁰. It is interesting that the idea was not popular after the 9/11, which suggests that “G” in the media is perceived primarily in economic terms or that today’s media work differently than in 2001 (the role of social networks, etc.). Overall, the results show an emerging trend of a discourse on the “end of G”, which will be discussed in the final chapter.

2.2 The “End of Globalization” in Academic Books and Articles

Searching “globalization” in Google – Books returns 474000 results and the “end of G” 125000 results, i.e. a share of 26,4 %, which is much higher than in the case of the media. Searching “G” in Book / eBook titles in the Summon Service returns 15042 results, but searching the “end of G” returns 21 results, out of which only 6 are relevant⁴¹. They are listed in Table 2.

Table 2: Book Titles Containing the “End of Globalization”

Bamyeh, M. A. (2000). <i>The ends of G</i> . Minneapolis: University of Minnesota Press.
James, H. (2001). <i>The end of G: Lessons from the Great Depression</i> . Cambridge, MA: Harvard University Press.
Kalb, D. (2000). <i>The ends of G: Bringing society back in</i> . Lanham, MD: Rowman & Littlefield.
Robb, J. (2007). <i>Brave new war: The next stage of terrorism and the end of G</i> . Hoboken, NJ: John Wiley & Sons.
Rubin, J. (2009). <i>Why your world is about to get a whole lot smaller: Oil and the end of G</i> . New York: Random House.
Rugman, A. M. (2001). <i>The end of G: Why global strategy is a myth & how to profit from the realities of regional markets</i> . New York: AMACOM.

Source: Author, based on search in the Summon Service

All the books were published after 2000, which shows emergence of a trend similarly as in the case of the media articles. The book titles suggest the relevant disciplines or topics, i.e. philosophy, economic history, political science/international relations, international security, petroleum industry and trade, or international business and trade. There is not such a concentration on economic themes as in the magazine/newspaper articles; the six books cover virtually all dimensions of G.

³⁸ The search service is provided by the library of the University of Economics, Prague. It enables to include results from outside the library’s collection. General information is available at <http://www.proquest.com/libraries/academic/discovery-services/The-Summon-Service.html>

³⁹ The sum is not 51 because some articles are listed under more than one discipline, some are not tagged.

⁴⁰ The database contains also older texts. The first listed article with “G” in title is from 1961.

⁴¹ Some texts are listed repeatedly, some are in fact reviews of the original texts, there are also errors in citations, etc.

Searching in journal articles is offered by all used services and enables the most nuanced search. It is possible to search in whole texts and in titles only. The results are summarized in Table 3.

Table 3: Results Returned by Searching in Journal Articles

	“G”		“End of G”	
	In text	In title	In text	In title
Google – Scholar	1570000	73000	1920	21 (10 relevant)
Summon (journal articles)	561949	49320	273346	39 (14 relevant)
WOS (all doc types; articles)	37165; 22067	12594; 4970	23; 3	21; 1

Source: Author, based on search in Google – Scholar, the Summon Service, the WOS

Table 4: Journal Article Titles Containing the “End of Globalization”

	Disciplines	Years of publication
Google – Scholar	NA	2014 (3), 2013 (1), 2007 (2), 2003 (1), 2001 (2), NA (1)
Summon (Journal Articles)	anthropology (1), business (6), economics (8), film (2), history & archaeology (4), international relations (3), journalism & communications (2), languages & literatures (5), law (2), library & information science (2), political science (5), social sciences (1), social welfare & social work (1), sociology & social history (3)	2016 (3), 2014 (2), 2009 (1), 2002 (3), 2001 (4), 1998 (1)
WOS	literature	2001

Source: Author, based on search in Google – Scholar, the Summon Service, the WOS

Not many articles with the “end of G” in title have been published; the hype is stronger in the media. The overview of disciplines suggests, again, a focus on economics and political science/international relations. There are no clear trends visible in the years of publication. The article found in the WOS is, in fact, an analysis of a Chinese film. However, the WOS contains other articles, which discuss the “end of G” – again, within the economic dimension (e.g. Greider, 2010; Oopenheimer, 2007).

3. Discussion and Conclusion

There are lessons to be learned from the previous analysis, as well as from some recently published journal articles on globalization. First, there are differences between the reality of G and its reflections/discourse. Apart from problems with the “measurement” of G (cf. Caselli, 2008; Raab et al., 2008; Strand et al., 2005, 55), the discourse is not simply mirroring the reality, but consciously or not adopts or promotes a certain worldview. Guillén (2001, 236) suggests that, apart from being a social process, G is also an ideology. E.g. “proponents of the feeble thesis [i.e. G does not/stops to exist] focus almost exclusively on the economic and financial aspects of G to the detriment of political, social, and cultural ones” (Guillén, 2001, 244). According to Strand et al. (2005, 54), “the hype of G is not matched by political and/or economic reality. G is not a descriptive term, it is a normative term and therefore characterizes a situation from the vantage point of certain interests, purposes, or standards.” This can be seen in the results, which suggest that G is perceived predominantly economically and virtually only economic events (the post-2008 crisis, the “Brexit”) have provoked debates on the “end of G”.

Second, the ambiguity and polarization of the discourse is supported by the fact that G as a real-world phenomenon is not a linear trend or what is called “progress”. It “is far from a uniform, irreversible, and inexorable trend. [It] is a fragmented, incomplete, discontinuous,

contingent, and in many ways contradictory and puzzling process” (Guillén, 2001, 238). It is the simultaneous fragmentation and unification of the world (cf. Dirlik, 2000, 6; 18). It is “the terrain for conflicting discourses, which both unites and divides in unprecedented ways” (Dirlik, 2000, 20). The concept is defined with connotations referring both to progress, development, stability, integration and cooperation, as well as to regression, colonialism and destabilization, and again, “these two different interpretations reflect different perspectives rooted in different world positions” (Al-Rodhan & Stoudmann, 2006, 3).

Third, the ambiguity can provoke negative perceptions such as uncertainty, risk, or crisis. E.g. Dirlik (2000, 20) asks: “Is this why the condition of G ... is also a condition of ‘uncertainty’ [by Robertson]?” Caselli (2008, 399) points out that G is characterized by “indivisible” factors such as the (un)sustainability and exploitation of natural resources or the threat raised by nuclear weapons, which suggest that “risk is the most unifying and levelling factor [i.e. aspect of G] in contemporary human experience.” Finally, Lang (2006, 901) connects the popularity of the “G” concept with the ideological instability/crisis of the post-cold war era and the “end of history”: “Fukuyama’s famous volume of 1992 marked not the end of ideology but the crisis facing the ideological grounding of capitalism within a political identity—what he called ‘history’” (Lang, 2006, 930). Hence, the various international crises in the past years, which provoked claims that G could be ending, are at the same time the “uncertainties”, “risks”, or “instabilities”/“crises”, which are the key factor of G. G is not ended but defined by them.

With Dirlik (2000, 20) we can conclude that globalization is “at once an end and a beginning”. It is a change, which is always changing.

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THE PARTICIPATION OF THE EUROPEAN UNION IN INTERNATIONAL ECONOMIC ORGANIZATIONS

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Abstract. The process of globalization is connected with strengthening of multilateral international cooperation not only between states, but also between international governmental organizations. One form of this cooperation is put in practice by international organizations allowing membership or other ways of participation in their activities for other international organizations. The most typical situation is a participation of the European Union (EU) in international governmental organizations of economic nature. However, this issue brings many open and complicated problems. From the internal point of view, we can identify at least three important questions. The first one is aimed to the selection of international organizations which are suitable for the participation of the EU in their scope of activity. The second one is related to relations between the EU and its members with respect to the agenda of international organizations, in which they are represented, because of their views may be different. Finally, the question is which institutional structure of the EU should represent the EU in third international organizations. From an external point of view, it is mainly the fact that the EU is a member subject of the particular international organization in addition to all member states of EU, which actually means the dual representation of the members of the EU within the third organization. And such a matter of fact is not perceived very positively by other member states of that international organization. The proposed article will address the above mentioned issues.

Keywords: European Union, member, observer, globalized economic cooperation, dual representation of the EU members in international organizations

JEL Classification F59, F60, F53

1. Introduction

Globalizácia je spätá s posilňovaním rôznych foriem medzinárodnej spolupráce. Je len jej prirodzeným následkom, že neprebieha výlučne medzi štátmi, ale medzi všetkými typmi aktérov svetového politického a hospodárskeho systému vrátane medzinárodných vládnych organizácií. Bežnými sú rozmanité formy zmluvnej spolupráce dvoch či viacerých medzinárodných inštitúcií, zdieľanie dát, zamestnancov a budov medzi nimi, ich spoločné projekty či spoločné financovanie aktivít. Veľmi špecifickým, no na druhej strane čoraz častejším, je členstvo jednej medzinárodnej organizácie v inej medzinárodnej organizácii alebo iná forma účasti medzinárodnej organizácie na činnosti inej medzinárodnej inštitúcie, napr. v podobe pozorovateľa alebo stáleho či *ad hoc* host'a. Ide o pomerne nový koncept, ktorý narúša typický pohľad na medzinárodnú organizáciu ako výtvor a priestor výlučnej spolupráce štátov. Možno povedať, že Európska únia (ďalej len „EÚ“), resp. je predchodcovia, patria k pionierom realizácie tohto konceptu, pričom špecifickosť jej povahy a šírka jej právomocí majú za

následok jednak veľmi rôznorodé podoby participácie EÚ v iných medzinárodných organizáciách či inštitúciách a jednak aj pomerne širokú paletu týchto inštitúcií, na činnosti ktorých sa EÚ podieľa rovnako alebo podobne ako ich členské štáty. Pre zaujímavosť, nižšie uvedená tabuľka zachytáva nami identifikovaný výpočet zapojenia EÚ alebo jej najdôležitejšieho orgánu do iných medzinárodných inštitúcií (celkom ide o 30 prípadov).

Table 1: Európska únia a Európska komisia v medzinárodných inštitúciách

		Medzinárodná organizácia alebo iná medzinárodná inštitúcia
Európska únia	člen	FAO, WTO, EBRD, OTIF ⁴² (člen bez niektorých práv), G7/G8, G20, FSB ⁴³
	pozorovateľ	OSN, ILO, WIPO, UPU, UNESCO, IOM, OAS, JVI, SAARC, BSC ⁴⁴ , EPPO ⁴⁵
	iný participant	WCO – status podobný členstvu (podľa oficiálnych databáz WCO) ICAO, ILO – <i>ad hoc</i> pozorovateľ v orgánoch ICAO a ILO na základe pozvania Arktická rada – <i>ad hoc</i> pozorovateľ
Európska komisia		rovnoprávny člen ASEM ⁴⁶ akoby člen OECD bez práva hlasovať pozorovateľ v IMF, IBRD, IMO, ITU účastník zasadnutí rozhodovacích orgánov OBSE

Source: internetové stránky uvedených inštitúcií, vlastné spracovanie autora

Ako je zrejmé, prevahu vo vyššie uvedenom výpočte majú medzinárodné inštitúcie ekonomického či hospodárskeho charakteru, čo má vysvetlenie predovšetkým v počiatkoch spolupráce západoeurópskych štátov práve v týchto oblastiach. Tento príspevok má za cieľ poukázať na najdôležitejšie úskalía pôsobenia EÚ v (tradičných) medzinárodných ekonomických organizáciách. V prípade voľnejších platforiem multilaterálnej hospodárskej (a politickej) spolupráce, aké predstavujú napr. G7/G8 a G20, sú tieto problémy zásadne menej významné, pretože ich štruktúra a procedúry sú menej formalizované, často sú bez právnej záväznosti a sú viac postavené na *ad hoc* báze, a preto sa nimi zaoberať nebudeme.

2. Východiská

Základom a zároveň hlavným mantinelom účasti EÚ v iných medzinárodných inštitúciách je primárne právo EÚ a dotknutej inštitúcie. Z hľadiska presnosti a konkrétnosti úpravy skúmanej otázky je primárne právo EÚ značne vägnejšie ako primárne právo dotknutej inštitúcie. V Zmluve o EÚ a ani v Zmluve o fungovaní EÚ nemožno nájsť výslovnú zmienku o členstve EÚ v inej medzinárodnej organizácii. Typickými sú ustanovenia o spolupráci EÚ s inými medzinárodnými organizáciami či o vzťahoch s nimi. Napríklad podľa čl. 220 ods. 1 Zmluvy o fungovaní EÚ nadväzuje EÚ všetky vhodné formy spolupráce s orgánmi OSN a jej odbornými organizáciami, s Radou Európy, OBSE a OECD a udržiava vhodné vzťahy

⁴² Intergovernmental Organisation for International Carriage by Rail – Medzivládna organizácia pre medzinárodnú železničnú prepravu, založená 1. 5. 1985.

⁴³ Financial Stability Board – Rada pre finančnú stabilitu, založená 2. 4. 2009 na samite G20 v Londýne.

⁴⁴ Commission on the Protection of the Black Sea Against Pollution – Komisia na ochranu Čierneho mora pred znečistením, založená 21. 4. 1992.

⁴⁵ European and Mediterranean Plant Protection Organisation – Európska a stredomorská organizácia pre ochranu rastlín, založená v r. 1951.

⁴⁶ Asia-Europe Meeting – Stretnutie Ázia-Európa, neformálny proces dialógu a spolupráce založený v r. 1996.

s ostatnými medzinárodnými organizáciami. Oprávnenie EÚ byť členom inej medzinárodnej organizácie však možno vyvodiť: (a) zo samotnej právnej subjektivity EÚ a faktu, že EÚ sa stala nástupcom Európskeho spoločenstva, pričom ho nahradila aj v príslušných medzinárodných organizáciách, napr. WTO a FAO (Wouters et al., 2013) a (b) z výslovného oprávnenia EÚ uzavrieť akúkoľvek dohodu s medzinárodnými organizáciami vhodnú na dosiahnutie cieľov uvedených v čl. 21 Zmluvy o EÚ, t. j. napr. rozvíjať vzťahy a budovať partnerstvá s medzinárodnými regionálnymi a svetovými organizáciami. Na účasť EÚ na činnosti medzinárodných inštitúcií bez právnej subjektivity, akými sú G7/G8, G20 či ASEM, sa právne princípy vzťahujú v obmedzenej miere, pričom otázka participácie EÚ na ich aktivitách je v podstate čisto politickou záležitosťou. Neformálnosť takýchto platforiem uľahčuje nielen začiatok participácie EÚ na ich činnosti, ale aj prispôsobovanie sa zmenám vznikajúcim v priebehu ich vývoja, keďže nie je potrebné prijímať nové právne záväzné pravidlá.

Najdôležitejším aktom primárneho práva každej medzinárodnej organizácie je jej štatút. Spravidla ide o multilaterálnu medzinárodnú zmluvu vymedzujúcu okrem iného kritériá členstva v danej medzinárodnej organizácii. Je štandardnou praxou, že členstvo v medzinárodnej organizácii je prístupné výlučne pre štáty, resp. nejaké ich súčasti (samosprávne či závislé územia a pod.), a teda, že prvým filtrom pre členstvo EÚ v nejakej medzinárodnej organizácii predstavuje práve štatút. Sporadicky sa možno stretnúť s tým, že by medzinárodnú organizáciu založili iné medzinárodné organizácie - ako to bolo v prípade Spoločného viedenského inštitútu založeného EBRD, IBRD, IMF, OECD, BIS a Rakúskom - alebo, že sa na jej založení spolupodieľala nejaká medzinárodná organizácia spolu so štátmi - ako tomu bolo pri vzniku WTO a činnosti Európskeho spoločenstva alebo pri založení G20 a činnosti EÚ (Nasra & Debaere, 2012). Skôr je pravdepodobné, že štatút pripúšťa možnosť, aby sa iná medzinárodná organizácia stala pozorovateľom, a to buď v organizácii ako takej alebo v jednom či viacerých jej orgánoch. Názorným príkladom zmeny vnútorných pravidiel s cieľom umožniť po svojom vzniku členstvo inej medzinárodnej organizácii je Svetová colná organizácia (WCO), ktorá síce zatiaľ v súčasnosti umožňuje členstvo výlučne štátom, no od roku 2007 prebieha ratifikačný proces dodatku príslušnej zmluvy, na základe ktorej bude možná participácia akejkoľvek colnej alebo ekonomickej únie na činnosti WCO, ak je daná únia oprávnená ukladať svojim členom právne záväzné predpisy, ktorú podmienku EÚ spĺňa, a preto je jej zatiaľ priznávaný status podobný členovi WCO. Prvou špecializovanou agentúrou systému OSN, v ktorej zmena vnútorných pravidiel umožnila členstvo iných medzinárodných organizácií a v ktorej EÚ (resp. jej predchodcovia) pôsobí, je FAO, a to už od roku 1991. V jej rámci je doposiaľ postavenie EÚ unikátne, a to z dôvodu, že ide o jedinú regionálnu ekonomickú integračnú organizáciu s týmto statusom (t. j. statusom obdobným členskému štátu). K nemu patria aj príslušné hlasovacie práva EÚ v rozsahu súčtu hlasov tých členských štátov EÚ, ktorí sú členmi príslušného orgánu FAO, ktoré hlasy však môžu byť uplatnené buď iba hlasovaním EÚ ako celku alebo iba hlasovaním príslušnými členmi EÚ, a to výlučne len v tých oblastiach, v ktorých EÚ oznámila FAO, že má právomoci prenesené od svojich členov (vo všetkých ostatných otázkach spadajúcich do rámca FAO sú oprávnené hlasovať len členské štáty EÚ a nie EÚ ako celok).

Okrem vyššie uvedeného základného právneho rámca platí aj pre vstup EÚ do iných medzinárodných organizácií princíp z oblasti vstupu štátov do medzinárodných organizácií, podľa ktorého ide v zásade o politický proces charakterizovaný intenzívnym rokovaním (Carroll, 2012). Ten je zasa stimulovaný záujmom EÚ alebo jej inštitúcií nadobudnúť lepšiu pozíciu na príslušnom úseku medzinárodných vzťahov, keďže EÚ má zatiaľ stále ambíciu byť

silnejším a vplyvnejším aktérom svetovej politiky a ekonomiky. Tento záujem je niekedy úspešný a smeruje k presvedčeniu členov inej medzinárodnej organizácie, aby zmenou pravidiel pripustili medzi seba aj EÚ, t. j. entitu inú ako štát (vyššie zmienený príklad WCO, FAO alebo aj WTO), a niekedy zasa bezvýsledný, ako to bolo v prípade odmietnutého návrhu EÚ na jej členstvo v Medzinárodnej námornej organizácii (IMO) ešte v roku 2005 (Liu & Maes, 2009). Niekedy je snaha EÚ o väčší vplyv v oblasti záujmu konkrétnej medzinárodnej inštitúcie a prípadne aj v samotnej inštitúcii až taká intenzívna, že môže byť existujúcimi členmi danej inštitúcie vnímaná ako nevhodné politické zasahovanie, čo sa spomína napr. v súvislosti s Arktickou radou (Liu, 2015). Na druhej strane možno nájsť aj príklady, kedy štatút jednej medzinárodnej organizácie výslovne pripúšťa členstvo inej medzinárodnej organizácie, no EÚ sa jej členom zatiaľ nestala, ako napr. v prípade Medzinárodnej organizácie pre vinič a víno (OIV), hoci úvahy o vstupe EÚ do OIV prebiehajú už temer 10 rokov.

Prirodzeným dôsledkom povahy EÚ a jej predchodcov je, že najväčší záujem o členstvo mali v minulosti práve vo vzťahu k medzinárodným ekonomickým (hospodárskym) organizáciám. Postavenie EÚ ako ich člena či iného účastníka ovplyvňujú vnútorné a vonkajšie faktory, z ktorých tie najvýznamnejšie budú predmetom skúmania v nasledovných dvoch častiach príspevku.

3. Vnútorné faktory účasti EÚ na činnosti medzinárodných ekonomických organizácií

K najsilnejším akcelerátorom participácie EÚ na aktivitách iných medzinárodných inštitúcií vrátane tých ekonomických patrí celkový vývoj spoločnej zahraničnej a bezpečnostnej politiky spejúci k posilňovaniu únijných inštitúcií a politik v tejto oblasti. Je už pravidlom, že tieto pokusy EÚ na multilaterálnych fórach bývajú spájané s diplomatickými aspiráciami EÚ a jej záujmom o širšie presadenie sa ako relevantného hráča v medzinárodných politických a ekonomických vzťahoch, ktoré sú zatiaľ stále prevažne orientované na štáty (Wessel & Vooren, 2012). To má za logický následok to, že zo strany orgánov EÚ možno identifikovať záujem o prenikanie do čo možno najširšieho spektra medzinárodných organizácií. Otázkou je, či takýto prístup nie je kontraproduktívny a či je naozaj potrebné, aby EÚ participovala na každej či takmer každej medzinárodnej inštitúcii, ktorej členmi sú jej vlastní členovia. Pre výber vhodných inštitúcií pre zapojenie sa EÚ do ich aktivít neexistuje žiaden kľúč a ani samotná EÚ nemá vytvorenú všeobecnú stratégiu pre svoju účasť vo veľkom počte medzinárodných organizácií, konferencií a procesov (Wessel & Blockmans, 2013). Predseda Európskej rady J. M. Barroso a vysoká predstaviteľka EÚ pre zahraničné veci a bezpečnostnú politiku C. Astonová síce pripravili Európskej komisii Stratégiu pre progresívne zlepšenie statusu EÚ v medzinárodných organizáciách a iných fórach v súlade s cieľmi Lisabonskej zmluvy (Communication to the Commission, 2012), no tá odhaduje zmenu postavenia EÚ smerom len k ôsmim medzinárodným inštitúciám v krátkodobom až strednodobom časovom horizonte, pričom vo vzťahu k iným fórám je vágna, obmedzuje sa na potrebu pozorovania vývoja, identifikovania prekážok a informovania o aktuálnom stave jednak orgánov EÚ a jednak členov EÚ.

Pre výber jednotlivých medzinárodných inštitúcií, v ktorých by malo dôjsť k posilneniu statusu EÚ, možno ako kľúč zvoliť pozitívne skúsenosti z pôsobenia EÚ v medzinárodných finančných inštitúciách. Ide totiž o to, že prezentácia, rozhodovanie a činnosť EÚ v jednotlivých medzinárodných organizáciách závisí predovšetkým od vymedzenia právomocí samotnej EÚ. Ak určitá otázka patrí do výlučnej právomoci EÚ, potom je logické, správne

a vhodné, že EÚ sa usiluje o realizáciu tejto právomoci aj prostredníctvom vonkajšieho prostredia, a že jej členské štáty s takýmto riešením súhlasia a podporujú ho. Výborným príkladom takéhoto prístupu je WTO, ktorej je EÚ riadnym členom, dokonca zakladateľom. S prihliadnutím na fakt, že v orgánoch WTO aktívne vystupuje predovšetkým EÚ, hoci jej členovia v nich sú alebo môžu byť zastúpení, a že jej členovia akceptujú spoločné stanoviská prezentované EÚ, niektorí autori hovoria dokonca o spoločnom členstve EÚ a jej členských štátov s efektom blízky výlučnému členstvu EÚ vo WTO (Bazerkoska, 2011). Podobnou je situácia vo WCO, v ktorej EÚ síce ešte nie je riadnym členom, no od 1.7.2007 jej boli členmi WCO priznané práva a povinnosti podobné členom tejto organizácie, a to vrátane hlasovacích práv v počte hlasov členov EÚ a povinnosti platiť ročný príspevok (možno uviesť, že EÚ je v podstate dočasným členom WCO). Územie členských štátov EÚ s malými výnimkami tvorí jednotné colné územie, pričom EÚ bude vo WCO disponovať hlasmi svojich členov pri rozhodovaní o všetkých otázkach upravených pravidlami WCO, ak tieto budú spadať do oblasti colnej únie ako výlučnej právomoci EÚ. Príkladom medzinárodnej inštitúcie s problematickým postavením EÚ, hoci ide o spoluprácu v oblasti patriacej do výlučných právomocí EÚ, je IMF, a to z dôvodu, že členom hospodárskej a menovej únie (ďalej len „HMÚ“) nie sú všetky členské štáty EÚ. V dôsledku toho nemôže byť EÚ v IMF zastúpená jednotne, t. j. rovnako ako v prípade WTO a WCO. Ďalšou komplikáciou pri IMF je to, a tu už prichádzame k druhému okruhu vnútorných faktorov, že (a) podľa čl. 219 Zmluvy o fungovaní EÚ sú o veciach týkajúcich sa HMÚ oprávnené v medzinárodných organizáciách rokovať samotné členské štáty EÚ, (b) na činnosti medzinárodných peňažných inštitúcií sa zúčastňuje Európska centrálna banka (ďalej len „ECB“) a s jej súhlasom aj národné centrálné banky, (c) ECB spolupracuje s medzinárodnými organizáciami v otázke zhromažďovania informácií, (d) spoločné pozície a v medzinárodných finančných inštitúciách a opatrenia na zabezpečenie jednotného zastupovania v medzinárodných finančných inštitúciách prijíma Rada EÚ zložená z ministrov financií členov euroskupiny (eurozóny) na návrh Európskej komisie. Inými slovami ide o vymedzenie právomocí medzi EÚ a jej orgány na jednej strane a medzi členské štáty EÚ na strane druhej, a to voči medzinárodnej organizácii, v ktorej participujú členovia EÚ a zároveň aj EÚ. Úprava zastúpenia viacerými spôsobmi a viacerými inštitúciami v jednej a tej istej medzinárodnej inštitúcii úplne prirodzene vedie k nezhodám a rôznym stanoviskám v jednej a tej istej záležitosti. Je evidentné, že navzájom protichodné pozície EÚ a jej (niektorých) členov nemôžu zohrávať pozitívnu úlohu ani vo vzťahu k dosahovaniu spoločných cieľov z pohľadu EÚ a ani vo vzťahu k príslušnej medzinárodnej organizácii a jej členským štátom, pretože to znižuje prehľadnosť vzťahov, zvyšuje náročnosť rokovaní a sťažuje možnosť dospieť k efektívnemu a rýchlemu konsenzu. Ak nadviažeme na prvý faktor týkajúci sa výberu inštitúcií, na ktoré by sa mala EÚ zamerať vo svojej vonkajšej politike, potom je jasné, že všetky inštitúcie s cieľmi spadajúcimi pod iné ako výlučné právomoci EÚ už zo svojej povahy zvyšujú riziko druhého faktora. Ako riešenie tejto dilemy sa ponúka, aby v prípade medzinárodných inštitúcií so záberom iným, ako sú výlučné právomoci EÚ, sa EÚ nesnažila o získanie členstva v nich, ale len o priznanie statusu pozorovateľa alebo iného participanta, resp. aby v prípade neexistencie pevného spoločného stanoviska na úrovni EÚ nevykonávala EÚ žiadne práva člena danej organizácie a zdržala sa vyslovovania názorov i hlasovania a výkon týchto práv prenechala na svoje členské štáty. Tretí významný vnútorný faktor účasti EÚ na činnosti medzinárodných ekonomických organizácií predstavuje otázka, ktorá zo štruktúr EÚ by mala reprezentovať EÚ ako celok. Ako je uvedené vyššie pri IMF, primárne právo EÚ zveruje v oblasti HMÚ a fiškálnej politiky (a podobne i v iných otázkach) rozhodovacie právomoci viacerým orgánom EÚ. To má za následok, že je nevyhnutná koordinácia medzi týmito orgánmi, čo značne predlžuje proces tvorby spoločného postoja vo vzťahu k medzinárodnému

prostrediu. A. Hervé síce načrtáva niekoľko teoreticky možných riešení tohto stavu smerom k IMF (Hervé, 2012), no ak inštitucionálna a kompetenčná fragmentácia nebude odstránená už na úrovni primárneho práva EÚ, problémy v praxi budú naďalej trvalo prítomné. Problémom je navyše to, že spravidla pri každej konkrétnej právomoci nemožno zoradiť jednotlivé kompetentné orgány EÚ do hierarchickej štruktúry, v ktorej by nižšie postavená inštitúcia mala povinnosť rešpektovať vyššiu úroveň rozhodovania. Napokon, je potrebné si uvedomiť, že štruktúry zo supranacionálneho i medzivládneho piliera potrebujú disponovať na medzinárodných fórach mandátom pochádzajúcim od členských štátov, a teda ich pôsobenie môže byť značne ťažkopádne, pretože pôvodná pozícia nemusí predpokladať zmenený stav, ktorý vznikol až v priebehu rokovania. Táto otázka má však širší kontext, ktorý vlastne predstavuje celá vonkajšia politika EÚ. Poznajúc politickú realitu plnú antagonistických postojov členov EÚ možno súhlasiť so stanoviskom J. Dudychovej, že k názoru o tom, že EÚ je entita schopná viesť svoju vlastnú zahraničnú politiku (t. j. vrátane tej voči medzinárodným ekonomickým organizáciám), treba pristupovať dosť skepticky (Dyduch, 2015).

4. Vonkajšie faktory účasti EÚ na činnosti medzinárodných ekonomických organizácií

Participácia EÚ na rôznych multilaterálnych fórach nezávisí primárne od jej vlastného rozhodnutia. V tomto je jej postavenie podobné štátu – kandidátovi na takúto formu medzinárodnej spolupráce, kedy je potrebné spravidla čakať na pozvanie či inú formu výzvy k pripojeniu sa k už existujúcemu projektu (toto samozrejme neplatí, ak EÚ stojí pri zrode nového modelu spolupráce alebo ho iniciuje). V prípade, že EÚ dospela k usporiadaniu nevyhnutných vnútorných záležitostí spojených s medzinárodnou spolupracou a táto je možná podľa práva príslušnej medzinárodnej organizácie, nastávajú rokovania o tejto otázke. K najdôležitejším bodom patrí problém zastúpenia EÚ a jej podieľania sa na tvorbe rozhodnutí v príslušnej medzinárodnej inštitúcii, čo je v prípade medzinárodných hospodárskych organizácií obzvlášť relevantné, keďže rozhodovanie v nich je priamo späté s financiami a dopadmi na ne. Klasickou neľahkou úlohou pri každej inštitúcii je vymedzenie postavenia EÚ a jej členských štátov v orgánoch danej inštitúcie, čo v zásade znamená určenie počtu hlasov alebo iných práv pre EÚ ako nového účastníka (napr. právo byť zvolený do výkonného orgánu medzinárodnej organizácie). Nejde len o teoretický aspekt ohľadom formálnej rovnosti všetkých členov medzinárodnej organizácie ako implikácie základného pravidla medzinárodného práva, ale predovšetkým o konkrétne obavy nečlenov EÚ z väčšieho vplyvu členov EÚ na chod príslušnej medzinárodnej organizácie. Ak je totiž EÚ členom inej medzinárodnej organizácie popri svojich členoch, títo sú zastúpení v danej inštitúcii dvojmo, t. j. existuje tu riziko zo zvýhodnenia určitej časti členskej základne a nadržania ich záujmov nad záujmy ostatných členov. Táto skutočnosť dostatočne odôvodňuje, prečo štatúty medzinárodných organizácií v zásade rovnako neumožňujú riadne členstvo iným (napr. regionálnym) organizáciám, hoci porovnávajú ich navzájom medzi sebou zostávajú veľmi heterogénnymi právnymi entitami (Wouters & Odermatt, 2012). Inštitúcie, v ktorých sú Európania (v zmysle EÚ) nadreprezentovaní, sú považované najmä IMF a Skupina Svetovej banky (Keukeleire & Hooijmaaijers, 2014). Na rozdiel od nich je tento problém vo WTO menej vypuklý a európski autori naň spravidla nepoukazujú ani v podrobnejších analýzach rozhodovacích procesov v rámci WTO, ako napr. J. Tijmes (Tijmes, 2009). Dôvodom je aj to, že v tejto organizácii sa rozhodnutia prijímajú spravidla konsenzom, a teda bez formálneho hlasovania. Možno pripustiť, ako uvádza J. Huigensová, že vzťahy medzi medzinárodnými organizáciami sú podmienené ich vnútornou dynamikou a preferenciami ich členskými

subjektmi, pričom niektoré z nich môžu byť dokonca vedľajším produktom transferu právomocí v rámci európskej integrácie, ako je tomu pri vzťahu EÚ a G8 (Huigens, 2015). No takýto vývoj je skôr výnimočným, aj keď vo všeobecnosti platí, že každý vzťah dvoch subjektov je okrem iného výsledkom aj ich vnútorného vývoja.

5. Conclusion

EÚ má trvalú ambíciu prekračovať hranice klasickej medzinárodnej vládnej organizácie. Je inštitúciou neporovnateľnou so žiadnou inou medzinárodnou inštitúciou, a preto sa vymyká mnohým hodnotiacim kategóriám. Navyše, je v neustálom procese vývoja, pričom častokrát ani jej členovia a ani jej orgány nemôžu predvídať budúce dopady minulých alebo súčasných rozhodnutí a procesov. Je pochopiteľné, že jej presahy do oblastí typicky patriacich do právomocí štátov sa snaží vykonávať aj na medzinárodnej úrovni. Tiež je prirodzené, že jej najvýraznejšie prejavy v tomto smere zaznamenávame práve na poli medzinárodnej hospodárskej spolupráce vrátane pôsobenia v rôznych medzinárodných ekonomických inštitúciách. Aktuálny vývoj v nich a ani v EÚ ale nenasvedčuje, že by malo dôjsť k nejakému zlomu v tejto oblasti. No ak bude mať EÚ naozaj záujem stať sa akceptovateľnejším aktérom v medzinárodnej politike, novým motívom jej multilaterálnej spolupráce a prioritou jej vonkajších vzťahov by sa mali stať iné hodnoty, ako sú ekonomická výhodnosť, hospodársky rast, zisk či rozvoj. Niektorí autori v tejto súvislosti poukazujú napríklad na koncepciu právneho štátu (Raube et al., 2015) alebo na efekty multilateralizmu orientovaného na vzťahy a interakcie (Keukeleire & Hooijmaaijers, 2014). S takýmito názormi možno len súhlasiť, pričom to vôbec neznamená, že ide o koncepcie nepoužiteľné v medzinárodných ekonomických organizáciách alebo o postoje, ktoré nemajú zo sekundárneho či terciárneho hľadiska pozitívny ekonomický rozmer.

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START-UP ENTERPRISES IN THE WORLD OF GLOBALIZATION

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Abstract. The last decade has been very specific in ICT spreading all over the world. The business environment has become more international and global. The mentioned conditions created space and opportunities for a new phenomenon in entrepreneurship. Start-up projects belong to the latest forms of innovative businesses. The main source of Start-up funding and financing is venture capital. Business angels and venture capital funds invest only in projects with the potential of becoming a global company. Investee has to prove that his business model is scalable, repeatable and suitable for foreign markets. The business solution or product has to be original in international terms. The article deals with financing of Start-ups and their specific traits. The paper creates a list of characteristics for Start-ups as global companies. The theoretical part of the publication is based on a literature review and the secondary analysis. We will define Start-up, venture capital, Start-up life cycle and Start-up business model. The second part of the article is empirical. We will analyse two chosen Start-ups from the European region. We focus on the role of global potential in Start-up investment criteria.

Keywords: Start-up, global environment, venture capital, investor

JEL Classification: M2, M15, O3

1. Introduction

The development and changes of the global economy are constantly greater and more frequent. With the widespread use of the internet, economic trends keep on changing more profusely and thus require companies to keep adjusting to these changes.

Start-ups are one of the accelerators of these changes which by the means of the internet and digitalization have more global economic impact. We can take the well-known FACEBOOK as an example which, by means of the internet, penetrated almost every country in the world and nowadays almost 1 in 4 people have FACEBOOK profile. The economic impact of FACEBOOK is immense and the changes it brings along are definitely on a global scale. (Mitková- Mariak, 2015)

Countries gradually realise the benefits of entrepreneurship development, especially the impact of start-ups on the economy. Although start-ups have smaller effect on GDP growth than foreign direct investment, if the business environment is headed in the right direction by the government, they can lead to a growing number of ambitious businesses, which will attract capital themselves and will positively contribute to GDP growth in the long-run. Despite start-up is a risky venture it brings along new innovative jobs, and if successful, it can have a bigger

impact on employment in the region than foreign direct investment in a manufacturing plant. For instance, 2016 is declared the Year of Entrepreneurship in Serbia and the authorities have provided support for foreign businesses. Apart from financial support, the government has made a commitment to make amendments to its legislation by the end of 2020 for which 'A Strategy for the Development of SMEs' document was approved. (MINISTRY OF ECONOMY RS)

Some countries (e.g. Izrael) base their economic growth precisely on start-up companies. The growth of economic indicators under this strategy is not fast and pays off after several years, but it creates long-term competitive advantage over other economies and future stable growth.

2. Literature review

In this part of article, we will elaborate on terms such as start-up, venture capital, and types of venture capital with regards to the life cycle of a start-up. We will focus on start-up business model. The simplest definition of start up would be that it is a new company with high potential which needs capital for its development. Contrary to a small local company, start-up should have a global growth potential.

Steve Blank (famous start-up entrepreneur) defines start-up as „*temporary organization designed to search for repeatable and scalable business model.*“ (Blank, 2010). He defines start-up as a product, where the main goal of a company is to look for a potential investor.

Eric Ries, Steve Blank's student, has a different point of view. According to Ries, a start-up is a: „*a human institution designed to create a new product or service under conditions of extreme uncertainty.*“ (Majerčáková, 2015) Innovation and added value to the customer is key for a start-up.

Paul Graham defines start-up as: „*a company designed to grow fast. Being newly founded does not in itself make a company a start-up. Nor is it necessary for a start-up to work on technology, or take venture funding. The only essential thing is growth.*“ (SlovakBusiness Agency, 2014)

It is, however, possible to find common characteristics in several definitions: (Senor & Singer, 2009):

- Start-up is a form of entrepreneurship, not only an idea.
- High level of uncertainty and risk.
- Dynamic scalable and repeatable growth.

Based on the above mentioned , it is possible to define start-up as a certain form of entrepreneurship, which is characterised by high rate of risk and is based on repeatable and scalable business model.

The difference between a start-up and a small company is visible in the character of companies' goals. Small companies focus on a profitability and stable long-term value. Start-ups are based on growth potential and incomes. Both of them want to be profitable in the end, but start-ups need to attract investors. A profitable company doesn't need any investor if we don't think about the stage of expansion. (Slávik, 2015)

There are many sources of funding for these innovative companies, whose aim is to realise the companies' ambitious plan with the final goal of boosting their value. Start-up financing can come from various sources: (Šlahor, 2015)

- a) Acquaintances, Friends, Family
- b) State support
- c) Investors

The most common form of funding is in the form of investors who, at low interest rates on the financial market and unstable financial markets, often choose to finance new companies which are risky but possess a great growth potential. (Šlahor & Barteková, 2015)

2.1. Venture capital and Start-ups

Venture capital is defined as a source of financing for new businesses. Venture capital funds pool investors' cash and loan it to start-up firms and small businesses with perceived, long-term growth potential. (Rentková et al., 2015). Venture capital is the most important way of funding start-ups that do not have access to their own capital. Described capital entails high risk and potentially high returns for the investor. There are several types of venture capital and they differ in start-up's stage and amount of investment. Individual investors usually invest mainly one type of capital. (Slovak business Agency, 2014)

Pre- seed capital is used for financing of ideas and research projects with the goal of building a successful company around it in later stages. Pre- seed start-up are working on the business model and description of value creation for future customers.

Seed capital represents sources used for market research and all activities before company's establishment. Investor finances the testing of investee's entrepreneurship with seed capital. Seed financings may be directed toward product development, market research, building a management team and developing a business plan (Rentková & Roštárová 2016). A genuine seed-stage company has usually not yet established commercial operations - a cash infusion to fund continued research and product development is essential. These early companies are typically quite difficult business opportunities to finance.

Start- up capital is applied to overlap initial costs including purchase of new machinery and equipment, purchasing of technologies, development of technologies, initial costs for marketing etc. Start- up capital is used for financing of start-up for the first two years of operation.

Growth capital represents a funding to the initial growth of company. The phase of financing starts when the final product is created and a testing stage is finished and validated by customers as opposed to start-up capital. (Peráček & Mittelman 2015). Money from growth capital covers marketing costs and expansion.

There are manifold classifications of venture capital, which vary by author. Some US authors and researchers in start-up field use the term early stage capital. The mentioned term is connected with the capital which has been used for first three years of company's operation. Early stage capital divides into start-up capital and growth capital. We consider start-up capital and growth capital as two separate forms of capital in this article. (Rentková & Roštárová, 2016).

Expansion capital represents the amount of money intended for expansion. It is difficult to support expansion just by using own resources. The term expansion is linked to opening new

foreign markets with selling the same product or a new product development. (Papík, 2015) Expansion capital is used for the mentioned purposes.

Mezzanine capital is a special form of capital. Bridge capital finances the step of going public and represents the bridge between expanding the company and the Initial Public Offering (IPO). IPO is the first sale of stocks by a private company to the public. Mezzanine capital does not strictly belong to venture capital. (Mesiar et al., 2015)

3. Methodology and data

The paper is processed using a wide scale of the scientific methods and procedures. The specific range of methods was based on the research needs of the individual parts. The intention is to follow the logical continuity of this paper, the correctness and the adequacy of information and data. This paper represents the combination of theoretical and empirical research based on real case studies. In the theoretical part, because we are dealing with the definitions of key terms such as Start-up, small and medium-sized enterprise, globalisation and so on. The mentioned part of publication is prepared using the analytical method and the synthesis. First capture is based on literature review; mainly available literature and studies.

But in the second part of this paper, we analyse the situation in Start-up projects in the Slovak Republic and Serbian republic and the criteria of investment they have already received. The second part represents empirical part. On the basis of the information, we analyse the role of global product's potential in receiving capital investment.

4. Analysis of chosen Start-up projects

4.1. The case study of company A

Company A is an IT Start-up operating in Slovakia. The product can be described as a universal key sharing platform built into smart phones. It allows people to open doors just by holding smart phone next to the lock and share their key with others fast and safely. The product has two security levels providing 100% protection and the system fits every door. Customer needs only a smartphone and a universal hardware reduction. The sharing system is built into smart device. The installed app in device allows people to open any lock just by holding the device next to the lock. Customers can instantly replace the standard bunch of keys and share digital keys with their customers, family and friends.

With a product controller and adapters, you can open every asset via your device. Moreover, you are able to share and receive secured keys. Start-up is a global product covering future six market segments: HOME, AIRbnb, HOTEL, AUTOMOTIVE, OFFICE, PUBLIC TRANSPORT. A management team wants to form a holding company with 6 divisions representing six key.vi segments.

The solution is the unique combination of hardware including electronics, special door lock and software represented free mobile application. Smart phone communicates with a door lock thanks to a NFC or Bluetooth chip and sends a unique electronic key to the door lock for further processing. The door lock authenticates the user and opens the door.

IT start-ups are the most popular Slovak start-ups, but company A includes a hardware part of solution what makes it more original and more difficult to imitate. Hardware prototypes of solution are accompanied with higher costs and a longer time period of creation. The product

idea was created at the end of 2013. The Start-up idea maker and CEO Robert has a technical background and he started to cooperate on manufacturing solution with technical team of specialists in Sahy, Slovakia. There was the second pivot in January 2016.

Nowadays, company A is at the end of seed stage and negotiates with potential investors and partners, who will join the team and support the final product manufacturing and future sales. The expected break-even point is calculated to the 1st quarter of 2017. Currently, the team is finalizing a list of components for hardware to set the critical production costs.

After first six months of creating business model and first product description, the project was accepted to acceleration program in Slovak private Start-up accelerator. The membership in program includes a funding of up to 100000€. Accelerator founders invested first financial and human resources to Company A and helped to create a sustainable core team.

Reasons of funding can be summarised as following: (Rentková & Roštárová, 2016)

- Unique idea
- Potential of unfair advantage creation
- Experienced team
- Scalable and repeatable business model
- Synergy with accelerator activities
- The ability to produce Minimum Viable product
- Opportunity to establish a global company

Investors analysed the competitors on the market. They found out that there are some indirect competitors who focus on opening lock via mobile phone. They do not operate with the key sharing platform and their process is not secured well. Company A has patent pending for processes of sharing digital keys, so nowadays there is an unfair advantage. Ash Maruya describes an unfair advantage as: „*one that can not be copied or bought. The unfair advantage can come from a number of sources, such as an Inside information, In-depth knowledge or skills critical to the problem domain or A single-minded, uncompromising obsession with One Thing.*“ (Ries, 2011). The process of key sharing is definitely an unfair advantage.

Company A had 4 team members when it started the acceleration program. Cooperative core team with rare skills can also bring the unfair advantage to the Start-up. Accelerator considered Start-up team as an advantage, but that assumption came out to be false. The CEO is the only team member who stayed in the project. Other team members changed several times. The project has a stable core team with many partners now, but the accelerator had been looking for qualified team players for a long period of time.

In the previous part of this article, we talked about scalable and repeatable business models of Start-ups. The scalability of business model is the main reason, why Start-ups are usually software and applications. Company A is from the IT field, but the solution includes the hardware part. Some difficulties with creating a scalable and repeatable business model occurred. On the other hand, investors considered it possible due to economies of scale implementations and they were right.

The accelerator focuses on IT projects in pre-seed stage of lifecycle. The project was suitable for investment and the accelerator could offer the help of human resources, mainly IT specialists who were experienced enough and willing to work on Minimum Viable Product. Accelerator founders and mentors were able to help with the business model thanks to their know-how from previous projects.

Company A belongs to global Start-ups with opportunities in many market segments. Final products differ slightly within particular market segments and every market segment is accompanied with different business strategy. The mentioned fact is a competitive advantage and an important point in negotiations with future investors. The management of accelerator saw the mentioned huge opportunity in the beginning, when Company A enrolled to the program. Founders of the Start-up saw potential just in HOME segment.

4.2. The case study of company B

At almost the same costs of doing business locally or globally, if start-up offers an innovative and useful service for a customer, it can make ‘fast’ money for the investors and the company’s value increases even without making any profit.

As an example we can introduce firm B, which deals with production and sale of nutrition supplements and specialized consulting for customers. The main product of the company are nutrition supplements based on Carnosine, which stimulates cells in body and thus helps the organism to solve a problem itself. Medicine has long been focused on prevention, where Carnosine is an ideal supplement, which is mainly due to huge stress consumed faster and in greater amounts. The biggest challenge for researchers was to transport Carnosine straight into cells and Company B has a solution which is the key to its products’ success. This solution is patented and strictly secret which adds to the value of the company and additionally attracts investors. Target groups of company B are:

- Managers working under huge stress – Stress is the trigger of almost all diseases and natural body immunity deteriorates because of stress. Carnosine lowers the impact of stress on body.
- Autists (adults and children) – Autism is not curable even when using Carnosine. Company B has done analyses and even on real cases proved that if autists use Carnosine some of their body functions can significantly improve.
- Sportsmen – Carnosine speeds up muscle recovery after.

Even though we thought that precisely great opportunity to sell products and services is the main reason why someone would invest on Company B, investors have defined 8 reasons why they have invested in company B (in order of priority):

1. Product and consulting are possible to be distributed across the whole world without a great increase in fixed costs.
2. Health as important segment of the economy with a growing share of world GDP.
3. Skilled and educated idea maker
4. Quality product and service with a high added value for customer
5. Well-developed business plan.
6. Innovative idea.
7. Low level of competition.
8. Diversification of business risk.

Investors first highlighted company’s global growth potential and after an additional question whether they would invest into a start-up if it did not have any global impact the answer was: No. In an interview with them, we found out that the global impact is always the most important for them and that it is the first thing they rate in projects. According to the investors, the possibility to sell a product or a service in the whole world affects the value of the company in which they invest and an exit strategy is, in this case, greatly justified.

They also highlight the human side of services and products. This group of investors always tries to invest in projects and start-ups, which bring high added value to customers and have human side to them.

Company B currently operates in three countries and each of its branches is profitable. The company is in an expansion state of its business cycle and requires new expansion capital in order to penetrate new markets.

5. Conclusion

In this publication we focused on start-ups in global environment. In the theoretical part of research, we defined start-up based on available literature as a certain form of entrepreneurship which is characterised by high rate of risk and is based on repeatable and scalable business model. We also elaborated on the definition of venture capital and its different forms.

In the empirical part of the article we analysed two start-up projects. Company A which is an IT start-up with global potential and Company B which has already become a successful international company. We focused on criteria based on which the companies mentioned above received funding from investors. Using these two examples it is possible to confirm the growing interest of investors to invest in start-ups with global potential. Idea makers quickly gained the required resources and the investors did not hesitate to invest their financial resources. Global use of a service or a product is commonplace in IT sector. When looking for a potential investor, it is very important whether the company plans to operate also beyond its country's borders. In the start-up industry, we should only talk about companies with global potential, otherwise it is not a start-up but rather a small company.

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USING ARTIFICIAL NEURAL NETWORKS FOR PREDICTION OF KEY INDICATORS OF A COMPANY IN GLOBAL WORLD

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Abstract. Artificial neural networks can be used for regression, classification or for instance for cluster analysis as an alteration of other traditional statistical analysis. Their advantages are especially ability to work with big data, accuracy of the results or simplicity of using the gained neural network. The main disadvantage lies in the way of generating single models of artificial neural networks. The correct result is set on the basis of iteration. Therefore the best model should be supervised by an expert in the concrete field. Generally, we can use regression for prediction of future development of financial indicators of a company. They are necessary for making a financial plan of a company (especially revenues). After getting the indicators we can use causal method and in the end intuitive method for making a financial plan of a company. The objective of the paper was to validate using chosen artificial neural network to predict future development of financial key indicator of CEZ Renewable Resources, Ltd. for setting a short-term financial plan. Multi-layer perceptron neural networks and Radial Basis Function neural networks were used. 1000 neural models were generated. The best got result says that it is possible to use neural networks for prediction of the future development of financial key indicators of a company.

Keywords: financial plan, neural networks, prediction, regression

JEL Classification: C15, G31, G39

1. Introduction

Today's global environment requires that companies to respond quickly to any changes. Speed, flexibility and innovation are the key criteria for success (Salaga & Berzakova, 2014). Business management, strategic planning, production, finance, sales and human resources – all these factors can provide the necessary stability and financial prosperity. Planning should have a positive impact on the company's results. Entrepreneurs should understand the financial range of their decisions, and therefore Gansel (2008) suggests a certain framework of financial planning which deals with decision-making, revealing of information and corporate strategy based on an exact financial plan. Peslak (2006) explore the views of top corporate financial executives on the success of implementation of key indicators planning systems. The findings indicate that key indicators planning implementations are generally viewed as successful.

The goal of enterprises is sustained high growth (Stehel & Vochozka, 2015). Prediction of key indicators, especially financial indicators, is useful for every business entity to enhance

their performance, competitive strength and access their financial stability and profitability of the firm. According to Xu et al. (2015) prediction of key indicators of a company can make relevant decisions as soon as possible when finding the crisis, improve the operating results and financial condition of a company, and can also make investors avoid or reduce investment losses. Planning of key indicators of a company can be used also for credit risk management systems in the estimation of default probabilities (Gansel, 2008). Between the key financial indicators of the company include You & Wei (2015) especially liquidity ratio, quick ratio, cash ratio, equity debt ratio, inventory current liabilities ratio, return on equity, return on total assets, main business profit ratio, operating profit ratio, ratio of profits to cost, expense ratio during the selling period, accounts receivable turnover, accounts receivable payback period, inventory turnover ratio, inventory sales period, main profit share, asset-liability ratio, equity ratio, net profit growth ratio etc.

Prediction of key indicators of a company plays an important role in company decision-making. However, the complexity and volatility of the market environment and business system increase difficulties in the planning (Gazdikova & Sustekova, 2009). The methods used for the planning depend on linear functions directly or indirectly to build forecasting models, which lead to the low accuracy of the planning (Vojtekova & Bartosova, 2009). Previously, the problems with financial analysis and prediction were solved by statistical models and methods. According to Bahrammirzaee (2010) generally, these methods can be classified to parametric statistical methods (e.g., discriminant analysis and logistic regression), nonparametric statistical methods (e.g., k-nearest neighbour and decision trees) and soft-computing approaches (e.g., artificial intelligent algorithms and rough sets). But in the real world, the behaviours of key indicators of a company are unstable and they change from time to time (Vochozka, 2010). Nonlinear and time-variant problems have been a serious problem in recent years. These types of problems along with inefficiency of the traditional models led to an increasing interest in artificial intelligence approaches (Beiranvand et al., 2012).

Recently, artificial neural networks (ANN) are very popular tool used for prediction of key indicators in a company. ANNs gradually achieved immense importance in numerous versatile domains, for example, classification, recognition and forecasting (Adhikari & Agrawal, 2014). There are many types of ANN. The question of which model may serve the intended purpose so solve inventory issues best has been posed by many researchers (Mitrea & Lee, 2009). According to Sayadi et al. (2012) ANNs are generally considered to be very accurate in prediction. However, one of the main problems of neural networks is that there is not a consensus as to how to use them best. Most studies propose simulations and adjustments to neural networks models. The ANNs represent a group of intelligent technologies for data analysis which differs from the other classical techniques, especially by the so-called adaptation phase – the neural network learns from the appropriately identified training examples representing the given problem (Hogenboom et al., 2015). Snorek (2002) claims that some of the main advantages of the ANN method for prediction of key indicators of a company are: approximate nonlinear functions; ability to learn; ability to generalize. Disadvantages of ANN are as follows (Dvorakova & Vochozka, 2015): variables must be carefully selected and prioritized (requires high quality data); possibility of illogical network behaviour; requires definition of architecture.

ANN system is therefore another good alternative with the unique capability of nonlinear self-adaptive modelling (Adhikari & Agrawal, 2014). The results of ANNs are promising and represent that in handling with key indicators of a company, the performance and accuracy are

considerably higher, compared to the traditional statistical techniques, particularly in nonlinear models. Nevertheless, this superiority is not true in all cases (Beiranvand et al., 2012).

The aim of this contribution is to predict basic financial indicators necessary for assembling of a financial plan on the example of a particular company.

2. Methodology

Financial planning can be characterized as quite difficult but the vital part of a company's financial management. To build a financial plan, financial managers use a variety of methods, which in principle can be divided into three groups (Vochozka & Sheng, 2016):

- statistical methods,
- causal methods,
- intuitive methods.

The methods resulted from combination of those mentioned above can be used as well. Brealey, Myers and Allen (2013) describe a method called Executive Fruit Company (EFC). The method consists in prediction of the basic quantity - revenues and financial ratios. These are then used to derive the other quantities in the financial plan.

Financial ratios are as follows: a_1 : % expenses to total revenues, a_2 : interest rate from debt, a_3 : tax rate, a_4 : % depreciations to fixed assets, a_5 : dividend pay-out ratio, a_6 : % net working capital to revenues, a_7 : % fixed assets to revenues.

The other financial plan values are derived according to the following equations:

$$\text{REV (Revenues)} = \text{prediction}$$

$$\text{COGS (cost of goods sold)} = a_1 * \text{REV}$$

$$\text{INT (interest)} = a_2 * D$$

$$\text{TAX} = a_3 * (\text{REV} - \text{COGS} - \text{INT})$$

$$\text{NI (net income)} = \text{REV} - \text{COGS} - \text{INT} - \text{TAX}$$

$$\text{DEPR (depreciations)} = a_4 * \text{FA (fixed assets)}$$

$$\text{L (liabilities)} = \Delta \text{NWC} + \text{INV} + \text{DIV} - \text{NI} - \text{DEPR} - \text{AKC (EPS-?) (a decision on the size of the share issue)}$$

$$\text{AKC (EPS)} = \text{value determined by the model user}$$

$$\Delta \text{NWC} = \text{NWC} - \text{NWC} (-1)$$

$$\text{INV} = \text{DEPR} + \text{FA} - \text{FA} (-1)$$

$$\text{DIV} = a_5 * \text{NI}$$

$$\text{NWC} = a_6 * \text{REV}$$

$$\text{FA} = a_7 * \text{REV}$$

$$D = L + D (-1)$$

$$\text{ROE (Return on equity)} = \text{ROE} (-1) + \text{NI} - \text{DIV} + \text{EPS}$$

where:

D – company's debt, $\dot{U}R$ – interest for use of chargeable liabilities (INT), FA – fixed assets (FA), $FA(I-)$ – fixed assets of previous years, $\check{C}PK$ – net working capital (NWC) (difference between working capital and short-term payables), $\Delta \check{C}PK$ – net working capital change (Δ NWC), $\check{C}PK(-I)$ – non-current net working capital.

Other items can then be derived from aggregated variables. EFC is thus a causal method. To fulfil the objectives of this article, however, we will use neural network to obtain input variables (thus actually we will replace the classical statistical methods). Specifically, we will forecast the future development of revenues, ratios, the coefficients a_1 to a_7 .

The CEZ Renewable Resources, Ltd. company and its data from the years 2004-2014 will serve to us as a concrete example. It is one of the companies of CEZ Group. The company focuses on acquiring electricity from renewable sources. Basic economic description of the company business will be the subject of introduction to the application part.

The statistical software, version 12, from Dell will be used as a data mining tool. Specifically, the neural network will be used, namely automated neural network. We will select the time series (regression). The only continuous predictor will be the time (single years). The categorical predictors will not be used. As have been mentioned above, the continuous target variable will be the revenues and the coefficients a_1 to a_7 . However, we have to exclude from the analysis the variables that have no standard deviation. In the case of tax rate (i. e. the tax rate on corporate income) anything does not need to be predicted. We will get it from the Income Tax Law. Furthermore, it will not need to predict the decision on the amount of equities (in this case the increase of the share capital of the company). It is constant in the reference period.

The data will be divided into three groups: Training (70 %), Testing (15 %) and Validation (15 %). The seed of the random selection was set at the value of 1000. Subsampling will be done randomly. Time-series input delay will be 1. Time-series delay will be 1. To establish the time series we will use the multi-layer perceptron network (hereinafter referred to as "MLP" and the radial basis function network (hereinafter referred to as "RBF"). In the case of multilayer perceptron network the minimum number of neurons in the hidden layer was set at 2 and the maximum number at 50. At least 3 neurons and a maximum of 8 neurons will be used for RBF.

The following neural structures will be determined as an activation fiction in both the hidden layer and the output layer.

1. Identity function, 2. Logistic function, 3. Hyperbolic tangent function, 4. Exponential function, 5. Sine function. The other settings will default.

3. Results and Discussion

To obtain neural structures the data in the form of basic financial characteristics of the company ČEZ from the period 2004-2014 have been utilized (Annual Report of the company ČEZ Renewable Resources Ltd. – CEZ Group, 2016). These are the values: total assets, fixed assets, production, operating income, profit before tax.

On the basis of the applied methodology 1000 neuronal structures were obtained and five of the finest were preserved. They are described in the Table 1.

Table 3: Preserved neural structures

	Network name	Training performance	Testing performance	Validation performance	Training error	Testing error	Validation error	Training algorithm	Error function	Activation of hidden layer	Output activation function
1	RBF 1-3-6	0,720964	0,00	0,00	3,458968E+10	3,085164E+11	1,812927E+10	RBFT	Sum squar.	Gauss	Identity
2	RBF 1-6-6	0,920056	0,00	0,00	1,904573E+10	3,099387E+11	4,012626E+10	RBFT	Sum squar.	Gauss	Identity
3	RBF 1-4-6	0,338855	0,00	0,00	2,280745E+11	4,277696E+08	5,863031E+10	RBFT	Sum squar.	Gauss	Identity
4	RBF 1-6-6	0,960185	0,00	0,00	5,073452E+09	9,840486E+10	1,497109E+07	RBFT	Sum squar.	Gauss	Identity
5	RBF 1-4-6	0,607239	0,00	0,00	1,532994E+10	1,104635E+11	4,436625E+07	RBFT	Sum squar	Gauss	Identity

Source: Own.

The table shows that the use of multi-layer perceptron network was of no value. All preserved networks are the radial basis fiction networks. According to the characteristics the most appropriate is the network number 4, which is 1-6-6 RBF, which uses a training algorithm RBFT. To activate neurones in the hidden layer it uses the Gaussian curve, to activate neurones in the output layer then identity.

The Table 2 provides the evolution of the coefficient a_1 in the reference period.

Table 4: Development of costs on total revenues %

	a1	a ₁ – Output variable	a ₁ - Output variable			
	Output (target)	1. RBF 1-3-6	2. RBF 1-6-6	3. RBF 1-4-6	4. RBF 1-6-6	5. RBF 1-4-6
1	0,598231					
2	1,057705	0,905775	1,074548	0,824059	1,020698	0,796093
3	1,036225	0,899783	1,015258	0,849225	1,071588	0,815593
4	0,849716	0,878431	0,897037	0,862299	0,829652	0,825920
5	0,737989	0,812342	0,622318	0,872270	0,762930	0,812677
6	0,528028	0,789775	0,649244	0,879226	0,492741	0,793592
7	0,711898	0,785886	0,746617	0,886797	0,735998	0,820383
8	1,012372	0,826694	0,913633	0,874437	0,996430	1,113793
9	0,973206	0,854407	0,940162	0,842796	0,986899	0,849225

Source: Own.

Similarly, the development of coefficients a_2, a_3, a_4, a_5, a_6 a a_7 can be represented.

The most important indicator, which enters the entire EFC model is considered income. It does not relate to this model only. Whenever, when a financial manager wants to build the high-quality financial plan, he starts from sales (i.e. the main component of revenues). Additionally, he plans costs, continues with property and subsequently its funding sources.

The possible development of the CEZ Company's revenues in the reference period is time-compiled on the basis of the preserved neural networks and is shown in the table number 4.

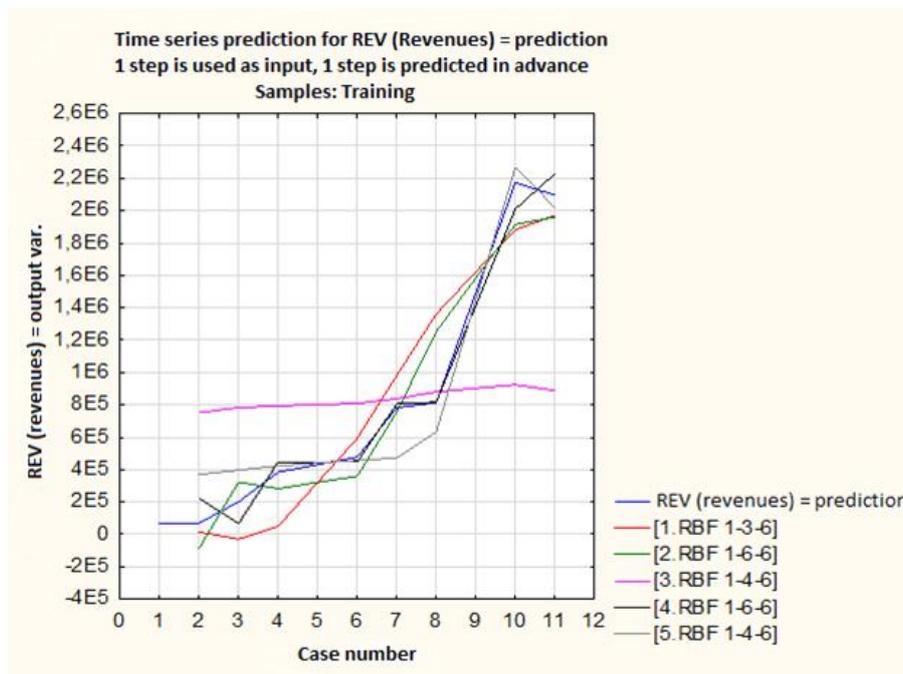
Table 3: Development of the revenues of the company CEZ Renewable Resources Ltd.

	REV (Revenues) = prediction Output (target)	Revenues- Output variable. 1. RBF 1-3-6	Revenues- Output variable 2. RBF 1-6-6	Revenues- Output variable 3. RBF 1-4-6	Revenues- Output variable. 4. RBF 1-6-6	Revenues- Output variable. 5. RBF 1-4-6
1	70322					
2	69075	14888	-86923	752055,7	224483	370151
3	200853	-28521	323036	783174,6	66513	396757
4	384593	49664	282757	794570,2	447183	423697
5	476853	594624	359984	809504,0	448688	458632
6	783205	982672	757358	838809,5	806601	470576
7	813525	1361935	1253830	881192,0	816755	632268
8	2172638	1881340	1914676	924864,8	2009735	2266429
9	2095865	1970872	1960036	889037,1	2227460	2020598

Source: Own.

Graphically, the entire development is presented in Figure number 1.

Figure3: Development of the revenues of the company CEZ Renewable Resources, Ltd. in the years 2004 – 2014



Source: Own.

4. Conclusion

The aim of the contribution was to predict the basic financial indicators necessary for the assembling of a financial plan on the example of a particular company.

The method called Executive Fruit Company was chosen as a basic model. From the obtained results it is evident that all 5 of the preserved neural networks are applicable to the concrete case of the company CEZ Renewable Resources, Ltd. Developments in all cases are very real.

It can be thus returned successfully to the classification methods used to assemble financial plans of the enterprises. The question is whether it is possible to apply particular methods, respectively groups of methods, separately and in their pure form. We believe that it is almost impossible. The ideal is to use a combination of methods.

In this case, as the base was chosen casual method. Its inputs were obtained by using of statistical methods (although it is questionable whether we can rank neural networks among the statistical methods). Last but not least, it was necessary to determine which from the achieved results is applicable. It has been generated 1000 neural networks. Using the method of least squares was determined and preserved the finest five networks. Room for the evaluation by an expert thus remains. If we retained only one result we would run the risk that it will be good only in its characteristics but in fact no usable. Hence the knowledge and above all intuition of the evaluator take their turn, the third of the methods used for compiling financial plans. We can thus conclude that the best network is number 4: RBF 1-6-6. To compile the finale financial plan the financial manager would continue further with mechanical calculation of the EFC model.

The combined method is appropriate and applicable not only for the company whose data have been used. It is even usable not only in the Czech Republic but is applicable worldwide. The assumption is a sufficient history of the company and a relatively stable business environment.

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EFFECTIVENESS OF MONETARY POLICY IN THE EUROZONE: INFLATION EXPECTATIONS, EXPECTED REAL INTEREST RATES AND THEIR EFFECTS ON THE LONG-TERM INTEREST RATES LEADING PATH IN THE CORE AND PERIPHERY OF THE EUROZONE

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Abstract. The global financial and economic crisis, the European sovereign debt crisis and other serious economic and political challenges which are currently attacking the European Union highlight the fragility of the Eurozone and move substantial heterogeneity of Eurozone members into a brand new dimension. Moreover, related recent macroeconomic development in the Eurozone, which is characterised in particular by the requirement of stabilizing the economic growth while maintaining conditions for fiscal sustainability of public budgets, and by persistent deflationary pressures, induces a fundamentally different background for monetary policy conduct in the Eurozone. The traditional signalling function of the price of money has namely failed in the Eurozone in the time of crises and continued globalisation and financial integration. The main aim of the paper is thus to analyse effects of inflation expectations and expected real interest rates on the long-term nominal interest rates leading path in the core and the periphery of the Eurozone using SVAR methodology. The results of the analyses draw attention in particular to serious differences in the role of considered factors when determining nominal interest rates between the periphery and core countries of the Eurozone. They also highlight an intensifying effect of the crisis on the identified trend and an important role of the process of globalisation in the analysed issue.

Keywords: European integration, globalisation, inflation expectations, interest rates, crisis

JEL Classification: C32, E52, F60

1. Introduction

Európska menová únia (EMÚ) bola koncipovaná ako fundamentálna a permanentná zmena ekonomických a politických systémov krajín, ktoré sa stanú jej súčasťou. Svojim členom mala zabezpečiť ekonomický rast, cenovú stabilitu a plnú zamestnanosť a v Európe mala podporiť ďalšie napredovanie politickej integrácie. (Polito & Wickens, 2015) V dôsledku vážnych zlyhaní vo svojom dizajne, však okrem iného dopomohla aj k vzniku rôznych politických konfliktov medzi niektorými jej členmi, ku kumulácii zadlženosti ich verejných rozpočtov na neudržateľnú úroveň, k vzniku výrazných nerovnováh ich bežných účtov a k vypuknutiu dlhovej krízy v Eurozóne. Negatívne ovplyvnila stabilitu a fungovanie bankového sektora a finančného systému Eurozóny a umožnila aby sa Európska centrálna banka (ECB) stala monetárnou autoritou vykonávajúcou kontroverzné menovo-politické opatrenia výrazne sa

odchyľujúce od jej pôvodného poslania a hraničiace s uskutočňovaním fiškálnej politiky v Eurozóne. (Manuel Garcia-Iglesias & Pateiro Rodriguey, 2005; Wickens, 2016)

Zavedenie jednotnej meny, totiž pre dotknuté krajiny neznamenal len záväzok plniť kritériá nominálnej konvergenie a dodržiavať pravidlá fiškálnej disciplíny, ale aj povinnosť akceptovať ECB ako monetárnu autoritu. Predstavovalo pre nich nutnosť prijať jej menovú politiku a súvisiace jednotné úrokové sadzby, ktoré boli determinované za nedostatočného zohľadnenia skutočnej ekonomickej úrovne, výkonnosti a konkurencieschopnosti jednotlivých členov. Súvisiaci „systém nevyslovenej garancie záchranu slabších členov Eurozóny jej silnejšími členmi“ a nebezpečná „ilúzia prosperity v Eurozóne“, tak postupne viedli k tomu, že kým pred prijatím Eura si jednotlivé krajiny na finančných trhoch požičiavali pri rizikových prirážkach zodpovedajúcich stavu ich ekonomiky, po jeho zavedení v dôsledku nesprávneho ohodnotenia rizika finančnými trhmi, sa vývoj a úroveň úrokových sadzieb na ich vládne dlhopisy zosúladi s úrokovými sadzbami na vládne dlhopisy ekonomicky silnejších a nízko-rizikových členov Eurozóny. (De Bondt, 2004; Wild, 2016) Následné nadmerné zadlžovanie sa najmä jej vysoko-rizikových členov vyznačujúcich sa vysokou mierou inflácie, ktoré bolo realizované pri de facto negatívnych reálnych úrokových sadzbách, bolo príčinou neudržateľného zadlžovania sa súkromného (Írsko, Portugalsko, Španielsko) a verejného sektora (Grécko, Taliansko, Portugalsko) týchto krajín a zdrojom finančných kríz, ktorým boli neskôr nútené čeliť nie len ony, ale aj Eurozóna ako celok. (De Grauwe, 2013) Rovnako ani reakcia ECB v podobe vysoko expanzívnych a (ne)štandardných menovo-politických opatrení, nevedla k upokojeniu situácie v Eurozóne, a to aj napriek jej cieľu naštartovať infláciu v Eurozóne, podporiť v nej rast nominálnych úrokových sadzieb z ich súčasnej nulovej úrovne a obnoviť v nej tradičnú funkciu ceny peňazí ako indikátora charakteru monetárnej politiky. (Artis et al., 1998; Mirdala, 2015)

Globálna finančná a ekonomická kríza, Európska kríza štátneho dlhu a ďalšie vážne ekonomické a politické výzvy, tak zdôraznili najmä zraniteľnosť Eurozóny a upozornili na dôsledky výraznej ekonomickej heterogenity jej členov. (Estrada et al., 2013) Kumulácia rizík na svetových finančných trhoch a destabilizácia svetového finančného systému a svetovej ekonomiky, ktoré súvisia s prebiehajúcim procesom globalizácie a integrácie finančných trhov (Dewandaru et al., 2016), spolu s aktuálnymi makroekonomickými podmienkami v Eurozóne, ktoré sa vyznačujú najmä pretrvávajúcimi deflačnými tlakmi a požiadavkou stabilizovať ekonomický rast v jednotlivých krajinách Eurozóny za súčasného zaistenia udržateľnosti ich verejných rozpočtov, zároveň viedli k fundamentálnej zmene podmienok pre výkon monetárnej politiky v Eurozóne a k celkovému sťaženiu jej riadenia. (Svensson, 2003; Berger & Woitek, 2005) Zámerom príspevku je preto, uvedomujúc si význam úrokových mier pre monetárne autority, za využitia metód štruktúrálnej vektorovej autoregresie (SVAR), analyzovať vplyv inflačných očakávaní a očakávaných reálnych úrokových mier na vývoj nominálnych úrokových mier v krajinách jadra a periférie Eurozóny. Výsledky prezentované v príspevku pritom upozorňujú najmä na rozdielnú úlohu zohľadnených faktorov pri determinácii nominálnych úrokových mier v krajinách jadra a periférie Eurozóny, na výraznú reakciu nominálnej úrokovej miery na uvažované šoky v krátkom období a na jej de facto nulovú reakciu v dlhom období. Vzhľadom na rozdiely medzi odhadovanými modelmi A1 (obdobie rokov 1999 až 2016) a A2 (obdobie rokov 1999 až 2007), zároveň naznačujú významný vplyv krízy a na analyzovanú oblasť.

Z hľadiska štruktúry je za účelom dosiahnutia stanovených cieľov zvyšok príspevku organizovaný nasledovne. Jeho druhá kapitola objasňuje dáta a metodológiu použitú v rámci

analýzy, jeho tretia kapitola pojednáva o výsledkoch tejto analýzy a jeho záverečná kapitola načrtáva diskusiu dosiahnutých výsledkov a formuláciu z nich vyplývajúcich zistení.

2. Dáta a metodológia

Odhad vplyvu očakávanej miery inflácie a očakávaných reálnych úrokových mier na vývoj nominálnych úrokových mier v Eurozóne, ktorý je hlavnou ambíciou príspevku, je založený na prístupe štruktúrnej vektorovej autoregresie (SVAR) (vid'. Blanchard a Perotti, 2002). Na identifikáciu štruktúrnych šokov je použitá identifikačná schéma Blanchard a Quah (1988), základom ktorej je dekompozícia efektov uvažovaných šokov na ich permanentné a dočasné zložky. Aplikované sú dlhodobé identifikačné ohraničenia na variančno-kovariančnú maticu redukovanej formy VAR rezíduí, ktoré sú v súlade s tvrdením o existencii dlhodobej neutrality v pôsobení jednotlivých šokov na isté premenné modelu. (Clarida et al., 1999) Odhadovaný model je tvorený vektorom endogénnych premenných X_t a rovnakým počtom jednoduchých štruktúrnych šokov, pričom jeho východisková forma je (1), resp. (2).

$$X_t = A_0 \varepsilon_t + A_1 \varepsilon_{t-1} + A_2 \varepsilon_{t-2} + A_3 \varepsilon_{t-3} + \dots = \sum_{i=1}^{\infty} A_i L^i \varepsilon_t = A(L) \varepsilon_t \quad (1)$$

$$\begin{bmatrix} IN_t \\ CPI_t \end{bmatrix} = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} \begin{bmatrix} \varepsilon_{CPI,t} \\ \varepsilon_{IN^e,t} \end{bmatrix} \quad (2)$$

pričom $X_t = [IN_t, CPI_t]$ je vektor endogénnych premenných o rozmere $n \times 1$, IN_t je dlhodobá nominálna úroková miera v čase t , CPI_t je miera inflácie v čase t a $A(L)$ je polynóm variančno-kovariančných matic modelu v tvare $n \times n$, ktoré vyjadrujú matice neskôr odhadovaných koeficientov. L je operátor oneskorenia a ε_t je vektor chýb pôvodných štruktúrnych šokov modelu o veľkosti $n \times 1$, ktoré sú identicky distribuované, pochádzajú z normálneho rozdelenia a sú sériovo nekorelované a vzájomne ortogonálne (vid'. (3)).

$$E(\varepsilon_t) = 0, \quad E(\varepsilon_t \varepsilon_t') = \Sigma = I, \quad E(\varepsilon_t \varepsilon_s') = [0]; \quad \forall t \neq s \quad (3)$$

V prípade použitého dvojzložkového SVAR modelu je uvažované pôsobenie dvoch exogénnych šokov na vývoj endogénnych premenných vektora X_t , t. j. šoku očakávaných reálnych úrokových mier ($\varepsilon_{IR,t}$) a šoku inflačných očakávaní ($\varepsilon_{CPI,t}$). Keďže však štruktúrne šoky pôsobiace na model nie je možné identifikovať priamo pomocou VAR z rovnice (1), bude na ich odhad použitá identifikačná schéma zachytená v práci Blanchard a Quah (1988). Súvisiaca redukovaná forma uvažovaného VAR modelu je pri tom (4), resp. (5).

$$X_t = u_t + B_1 u_{t-1} + B_2 u_{t-2} + B_3 u_{t-3} + \dots = \sum_{i=1}^{\infty} B_i u_{t-i} = \sum_{i=1}^{\infty} B_i L^i u_t \quad (4)$$

$$\begin{bmatrix} IR_{n,t} \\ CPI_t \end{bmatrix} = \begin{bmatrix} b_{11} & b_{12} \\ b_{21} & b_{22} \end{bmatrix} \begin{bmatrix} u_{CPI,t} \\ u_{IR^e,t} \end{bmatrix} \quad (5)$$

Pre šoky zo vzťahu (1) a pre rezíduá zo vzťahu (4) platí, že $u_t = A_0 \varepsilon_t$. Matice A_i sú získané z odhadov vzťahu (3) a z rovnice $A_i = B_i A_0$, pomocou ktorej je identifikovaná matica A_0 . Zadefinované sú celkom štyri ohraničenia, pričom dve z nich sú stanovené prostredníctvom normalizácie, ktorá umožní varianciu šokov $\varepsilon_{CPI,t}$ a $\varepsilon_{IN^e,t}$ definovať ako na úrovni jednotky. Tretie ohraničenie je založené na predpoklade, že oba uvažované štruktúrne šoky sú

ortogonálne, resp. vzájomne korelované a štvrté obmedzenie vychádza z tvrdenia, že kým je vplyv šoku inflačných očakávaní na nominálne úrokové miery trvalý, vplyv šoku očakávaných reálnych úrokových mier na nominálne úrokové miery je len dočasný. Uplatnené je dlhodobé ohraňenie, ktoré vychádzajú z predpokladu neutrality vplyvu určitého šoku na vývoj konkrétnej endogénnej premennej modelu. V prípade oboch šokov zároveň platí, že je ich vplyv na vývoj inflácie trvalý. Kumulatívny efekt šokov očakávaných reálnych úrokových mier na vývoj nominálnych úrokových mier je uvažovaný ako rovný nule, čím je do modelu zavedené dlhodobé ohraňenie (vid'. (6)), ktoré umožňuje rozlíšiť pôsobenie obidvoch typov šokov na endogénne zložky modelu. Model upravený uvedeným spôsobom je následne odhadovaný prostredníctvom metódy SVAR.

$$\begin{bmatrix} IN_t \\ CPI_t \end{bmatrix} = \begin{bmatrix} a_{11} & 0 \\ a_{21} & a_{22} \end{bmatrix} \begin{bmatrix} \varepsilon_{CPF,t} \\ \varepsilon_{IN^e,t} \end{bmatrix} \quad (6)$$

Uvažovaný dvojzložkový SVAR model je odhadnutý pre Nemecko a pre každú z krajín GIIPS osobitne. Jednotlivé odhady sú založené na mesačných údajoch pre úrokové miery na dlhodobé vládne dlhopisy (IN, dlhopisy so splatnosťou 10 rokov) a na údajoch pre infláciu počítanú na báze spotrebiteľských cien (CPI). Pre každú krajinu sú odhadované dva modely, a to model A2 pokrývajúci obdobie január 1999 až december 2007 (celkom 108 pozorovaní) a model A2 založený na dátach za obdobie január 1999 až marec 2016 (celkom 207 pozorovaní). Komparácia výsledkov dosiahnutých prostredníctvom modelu A2 s výsledkami za model A1 umožňuje identifikovať vplyv krízy na analyzovanú problematiku. Časové rady pre jednotlivé endogénne premenné sú čerpané z databázy (IMF, July 2016). Vzhľadom na svoju povahu sú časové rady pre obe premenné vo všetkých prípadoch sezónne očistené a upravené metódou logaritmovania a prvej diferencie. Výsledky realizovanej popisnej štatistiky všetkých časových radov sú uvedené v Tabuľke 1. Skratky názvov krajín sú uvádzané v súlade so štandardom ISO 3166-1 (Alpha-3 code).

Table 1: Výsledky vykonanej deskriptívnej štatistiky pre Nemecko a krajiny GIIPS

	DEU		GRC		IRL	
	CPI	IR	CPI	IR	CPI	IR
Max	0.176818	0.104209	0.331134	0.084199	2.722e-01	0.052593
Min	0.205103	-0.062753	-0.320439	-0.159462	-2.100e-01	-0.067483
Mean	0.000147	-0.002444	-0.002494	0.000342	-5.089e-04	-0.000671
SD	0.050271	0.018459	0.057745	0.025344	0.0382894	0.010788
	ITA		PRT		ESP	
	CPI	IR	CPI	IR	CPI	IR
Max	0.165321	0.062314	0.234863	0.054163	0.193515	0.052200
Min	-0.192192	-0.056640	-0.207980	-0.053721	-0.177178	-0.035354
Mean	-0.001889	-0.001338	-0.001316	-0.000439	-0.001898	-0.001047
SD	0.034358	0.016289	0.044730	0.017806	0.049020	0.014653

Source: Vlastné výpočty za použitia údajov (IMF, July 2016)

Maximálny uvažovaný počet lagov odhadovaných modelov je 10. Pri identifikácii optimálneho počtu lagov modelu sú zohľadnené tri informačné kritériá, a to Akaike Information Criterion (AIC), Hannan-Quinn Information Criterion a Schwarz Information Criterion, Výsledný počet lagov odhadovaného modelu je jedna. ADF test potvrdil, že všetky použité časové rady sú stacionárne. Jarque-Bera normality test zas ukázal, že najmä reziduá modelov typu A1 nepochádzajú z normálneho rozdelenia. Príčinou je finančná kríza, ktorá viedla k výrazným fluktuáciám v hodnotách jednotlivých časových radov. Výsledkom Portmanteau

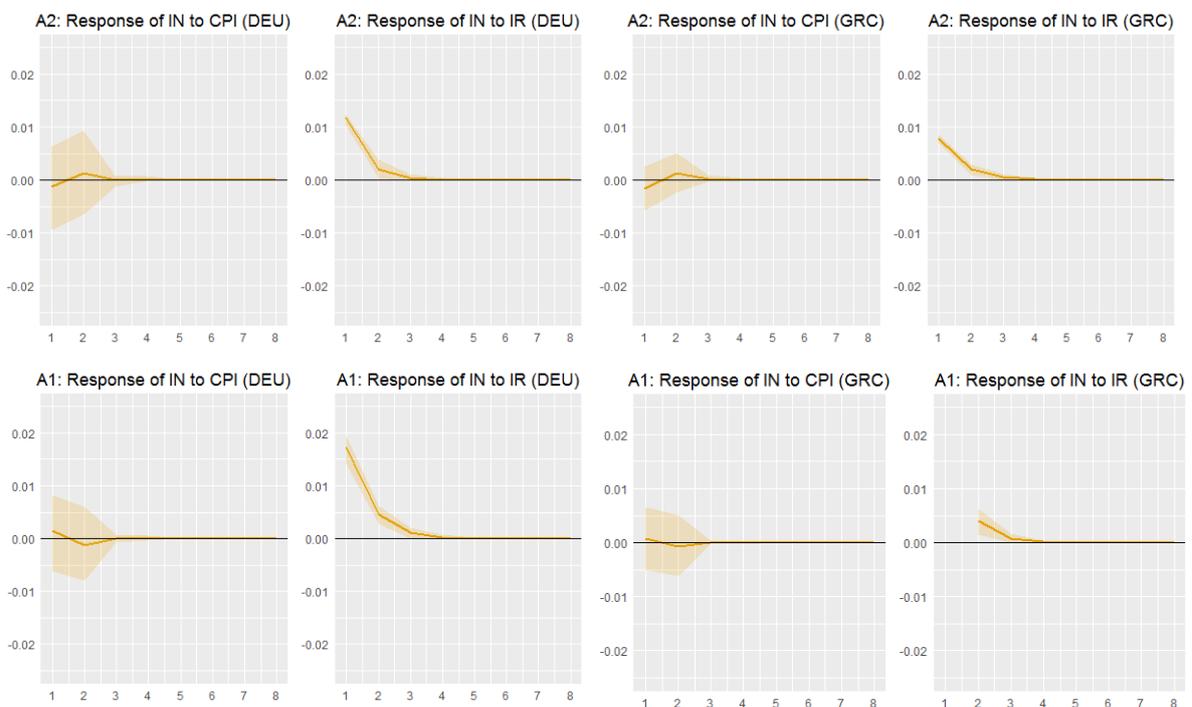
autocorrelation testov bolo tvrdenie o neprítomnosti sériovej korelácie v odhadovaných modeloch. Výsledky Breusch–Godfrey testu tiež naznačili neprítomnosť autokorelácie v ich reziduách. ARCH test jednotlivých odhadovaných modeloch nepotvrdil ani výskyt autoregresne podmienenej heterokedasticity a Johansen cointegration test ukázal, že kointegrácia naprieč premennými nie je prítomná. Odhadnuté VAR modely sa navyše javili ako stabilné, nakoľko sa ich inverzné korene nachádzali vo vnútri jednotkového kruhu.

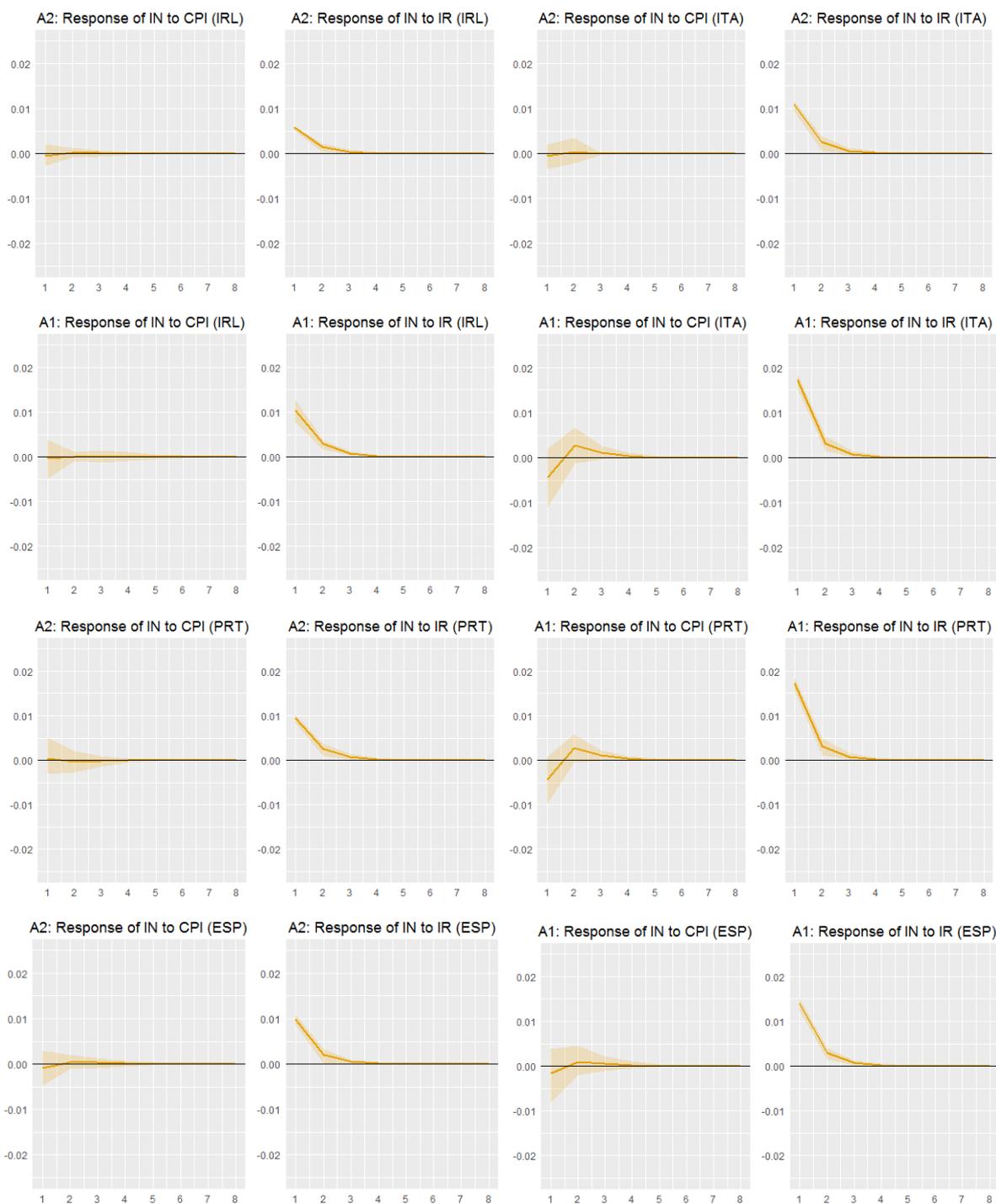
3. Výsledky analýzy

Obrázok 1 zobrazuje reakcie nominálnych úrokových sadzieb na šok v inflačných očakávaniach a očakávaných reálnych úrokových mierach v Nemecku a v krajinách GIIPS. Poskytuje porovnanie tejto reakcie v krajinách periférie Eurozóny s obdobnými reakciami v Nemecku, ako reprezentantovi jej jadra. Na základe komparácie výsledkov pre model A2 s výsledkami pre model A1 navyše poukazuje na vplyv krízy na analyzovanú oblasť.

Napriek mnohým podobnostiam, znázornené reakčné funkcie naznačujú aj niekoľko významných rozdielov naprieč jednotlivými analyzovanými krajinami a obdobiami. V prvom rade je de facto vo všetkých prípadoch zrejماً výrazná dominancia vplyvu zmeny očakávaní ekonomických subjektov vo vzťahu k vývoju reálnej úrokovej miery na trhu na nominálne úrokové miery desaťročných vládnych dlhopisov. Výrazné odlišnosti sú zrejmé tiež v oblasti okamžitých reakcií uvažovanej nominálnej úrokovej miery na šok v reálnych úrokových mierach, ktorý je spočiatku výrazný, no časom sa postupne vytráca. Rozdielnosť výsledkov medzi modelmi A2 a A1 zároveň potvrdzuje vplyv krízy na analyzované vzťahy. Informácie obsiahnuté v Grafe 1 je poskytujú isté potvrdenie škodlivého vplyvu nesprávneho ohodnotenia rizika aktérov finančných trhov na dlhové problémy Eurozóny. (Svensson, 1999, A, B).

Figure 1: Reakcie nominálnych úrokových sadzieb na šok v inflačných očakávaniach a očakávaných reálnych úrokových sadzbách v Nemecku a v krajinách GIIPS





Source: Vlastné výpočty za použitia údajov IMF, 2016

4. Conclusion

Inštitucionálne zmeny ku ktorým došlo od vypuknutia dlhovej krízy, jednoznačne nie sú v súlade s tým čo je potrebné uskutočniť pre zmiernenie dôsledkov vážnych zlyhaní v dizajne Eurozóny. Niekoľko rokov po krízach, ktorým čelila, sa totiž jej ďalšie fungovanie opäť stáva predmetom vážnych diskusií. (De Grauwe, 2016) Analýza vplyvu relevantných premenných v rámci determinácie nominálnych úrokových sadzieb vládnych dlhopisov je preto významným krokom v rámci komplexnej analýzy vplyvu existujúcich rozdielov medzi krajinami jadra a periférie Eurozóny na oblasť ich hospodársko-politického riadenia, a teda aj zásadnou súčasťou snahy o vyriešenie mnohých jej problémov. Výsledky analýzy prezentované v príspevku, pritom rovnako ako mnohé ďalšie práce, potvrdzujú, že „one-size-fits-all“ menová politika v prípade Eurozóny jednoznačne nie je tým najlepším riešením. Diskutabilné ciele spolu so špecifickými systémovými zlyhaniami projektu Eura, by preto mali byť impulzom pre zmenu smerovania integračných procesov prebiehajúcich v Európe. K riešeniu problémov Eurozóny, preto môžu prispieť napríklad posilnenie fiškálnej integrácie, či zriadenie tzv. „viacrýchlostnej menovej únie“. Obe tieto riešenia, by však zásadne ovplyvnili mieru celkovej politickej integrácie EÚ, v dôsledku čoho je optimálna podoba Eurozóny naďalej otázná. (Faust & Svesson, 2001; Faust & Henderson, 2003) Výsledky analýzy však upozorňujú na rozdielnu úlohu zohľadnených faktorov pri determinácii nominálnych úrokových mier v krajinách jadra a periférie Eurozóny, na výraznú reakciu nominálnej úrokovej miery na uvažované šoky v krátkom období a na jej de facto nulovú reakciu v dlhom období. Vzhľadom na rozdiely medzi odhadovanými modelmi A2 a A1, navyše naznačujú významný vplyv krízy na analyzovanú problematiku. (Chatelain et al., 2003) To upriamuje pozornosť na rozdiely v oblasti očakávaní ekonomických subjektov v závislosti od ekonomickej výkonnosti krajiny a na nutnosť urýchliť konvergenciu periférnych krajín Eurozóny k jej výkonnejšiemu jadrú, avšak za súčasného zabezpečenia udržateľnosti verejných rozpočtov všetkých jej členov. Len tak totiž môže byť riziko vo vzťahu k periférii Eurozóny vnímané aktérmi finančných trhov znížené a len tak môže dôjsť k zmene ich očakávaní týkajúcich sa vývoja reálnych úrokových mier a k zlepšeniu schopnosti ECB úspešne zastávať svoju funkciu monetárnej autority v Eurozóne. (Mirdala, 2016)

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SENSORY MARKETING STRATEGY: USE OF THE SENSE OF TASTE ON THE GLOBAL MARKET OF FOOD

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Abstract. Nowadays, marketing methods and techniques are developing rapidly. The main reason is the proceeding globalization of individual markets. Marketers need to react promptly on the changing requirements of consumers. One of the latest marketing techniques is sensory marketing based on creating synergy between product and consumer using human senses, leading to increased consumption. The taste is the most specific human sense. It is very subjective and that is why the taste is less utilized in marketing strategies. But it is also very powerful and can be used in marketing to attract consumers on the world market. In this paper we present results of our study with several taste tests. It was found out that there is a strong relationship between the taste of chosen products and additional information that consumers had in their disposal. The more information consumers have in disposal, the more positive is the taste of the products. There is also a correlation between the taste and the brand name. Consumers rate favourite brands more positively. If consumers have an opportunity to taste cheaper products before buying, they prefer them to more expensive and well-known products.

Keywords: globalization, sensory marketing, sense of taste, food market, consumer behaviour

JEL Classification: M30, M31, F60

1. Marketing activities on the global food market

The globalization can be defined by many ways. People around the world are more linked to each other than ever before. Information flow more quickly. Products and services produced in one part of the world are obtainable in other parts of the world in increasing rate. International communication is simple and fast (Pirnea et al., 2013). In the last thirty years, the great changes are witnessed in business and marketing activities, driven by a trend towards more interdependence among nations. These changes demonstrate the significant impact that globalization has on businesses (Thourumngroje, 2004). Global market opportunities mean increases in market potential, trade and investment potential and resource accessibility resulting from globalization. (Svensson, 2002).

Among the marketing activities, there are also two motives for the globalization. One motive is to take advantage of opportunities for growth and expansion and the other motive is simply survival. Companies that fail to pursue global opportunities will in the end lose their domestic markets. The globalization of marketing activities includes specific tasks such as the organization of worldwide efforts, research of domestic and foreign markets, finding new

partners, purchase of comprehensive support services and managing the costs of the international transactions (Svensson, 2002).

The globalization of food market means that every country of the world should have a free access to the individual agricultural and food markets of other countries. The global food market brings many advantages for regular consumers. Many unknown and wanted foreign products are accessible, prices are lower, the satisfaction is higher. But there are also risks. New, unknown diseases from foreign food, new forms of food allergies, parasites and so on. The food habits could be also changed, the globalization may even alter a part of the culture, as in any nation, cooking traditions and food habits are the result of the natural climate conditions. Besides above mentioned disadvantages, there is also a need for new marketing activities on the global food market.

1.1. Sensory marketing as a new marketing technique

Nowadays, marketing methods and techniques are developing rapidly. The main reason is the proceeding globalization of individual markets. Marketers need to react promptly on the changing requirements of consumers. Marketing organizations are developing new methodologies and mechanisms to capture the attention of consumers in an increasingly changing environment. Currently, there are a number of new methods that are applicable in marketing. Marketing is becoming more closely linked not only with the social sciences and psychology, but especially with neurosciences. The knowledge of the basic principles of human mind functioning, cognitive processes and affective states facilitates the understanding of processes of buying behaviour and consumer decision-making.

In the middle of globalization era, when consumers have at their disposal more and more prosperous livelihood, when technology is present more and more, when everyone look for the newest and the most modern thing, food sector represents an exception. Consumers want to know everything about products, they want information about the origin of ingredients, the persons involved in the production process and so on. This is why the current consumers are often looking for unique, sensorial experiences which, according to them, can be found only in original, simple, traditional products. The simplicity and authenticity are qualities the consumers should take into account when they buy food products (Mărcuță et al., 2014).

Consumers on the current market are very difficult to satisfy. The research shows that there are a lot of factors that influence buying behaviour of the customers. In the last few decades, marketing has changed drastically, evolved from unidirectional communications from companies to consumers, into dialogs between companies and consumers (Krishna et al., 2016). In recent years, the role of sensory experiences in judgment and decision making has seen a surge of interest in marketing as well as psychology (Krishna & Schwarz, 2014). Because of the globalization, consumers always expect new products. New product introductions are critical to the growth and continuing success of a company. Development of innovative products that satisfy various groups of consumers helps to maintain a company's market share (Zhi, R. et al., 2016). Consumer expectations play also a major role in the sensory perception of food and drinks. These expectations may be culturally based or the result of cues provided by the product's packaging and presentation (Gilbert et al., 2016). Another important factors are recommendation and risk perceiving. If a product recommendation from an information source is available to consumers, they can either decide not to consult it, consult and follow it, or consult and not follow it (Senecal et al., 2005). But consumers are more confident on the market when they know some other opinions. The perceived risk reduces the consumer's

intention to purchase, whereas a consumer's perceived benefit increases the consumer's purchasing intention (Kim et al., 2008).

Sensory marketing is trying to mediate a positive experience through five human senses and evoke the positive emotions in consumer's minds before, during and after the purchase of the specific product. The basic strategy of sensory marketing is to evoke feelings and emotions through sensory perceptions and create a strong emotional attachment to the brand, product or company. This process also significantly strengthens customer loyalty to the brand or product (Lindstrom, 2011).

1.2. The sense of taste

The sensory assessment of food products is made with the help of the five senses, which are used during the nutrition process, each of them contributing to the triggering of different physiological and emotional reactions towards the consumed food. Although each of the senses plays its part during the food consumption process, the sensorial process is a combination of all the senses (Mărcuță et al., 2014).

Taste is considered the most important factor as regards food selection and helps us to identify the fragrances which are based mainly on perception and it represent in fact a combination of senses. Taste is most closely linked with the sense of smell, but it is significantly affected by other senses and sensory stimuli (Krishna & Morrin, 2008).

Taste is very specific sense and it is highly subjective. Today, we can carry out sensory analysis of foods, taste sensitivity can be evaluated using food where we know the number of the main ingredients, and the using solutions with different concentrations of substances (Landis et al., 2009). Sensory analysis is now significantly advancing trend, which plays an important role in food testing. It is known that the perception of flavor and aroma of (not just) food is a dynamic phenomenon (Lawless & Heymann, 2010). Food companies around the world in recent years are greatly interested in the sensory analysis of foods and try to meet the demanding requirements of customers. Nevertheless, what is tasty for the one, the other might not like at all, so we can hardly make judgments that something tastes good or bad.

Velasco et al. (2016) describe how customers link simple flavors or words describing the simple tastes with a specific shape of product packaging. From various studies we know that the certain expectations of taste are attached to logo, brand name or packaging. Velasco et al. (2016) claim that there are also fundamental consistencies, which work well also for unknown impulses. The research specifically shows that the shape attributes (i.e. straight vs. curved, symmetrical vs. asymmetrical) affect the taste that consumers naturally associate with a given shape. The data suggest that consumers associate certain shape dimensions with flavours based on regular affective significance.

The main goal of this paper is to show that the taste of the products is not affected only by other senses but also by additional information that consumers have at disposal. We also want to show how the taste can influence the buying behaviour of consumers on the food market. The object of the study and the taste tests are strawberry jams of chosen Slovak producer of fruit jams and marmelades.

2. Methodology and data

The sample consists of 110 participants: 34 males and 76 females. All respondents are aged from 20 to 27 years (Table 1). All respondents are university students, born in Slovakia, have

Slovak nationality and live in Slovak Republic. Another characteristics of respondents are not important for our research.

Table 1: Gender and age structure of respondents

Gender/Age	20	21	22	23	24	25	26	27	Total
Male	2	7	11	6	6	1	1		34
Female		24	33	12	2	1	2	2	76
Total	2	31	44	18	8	2	3	2	110

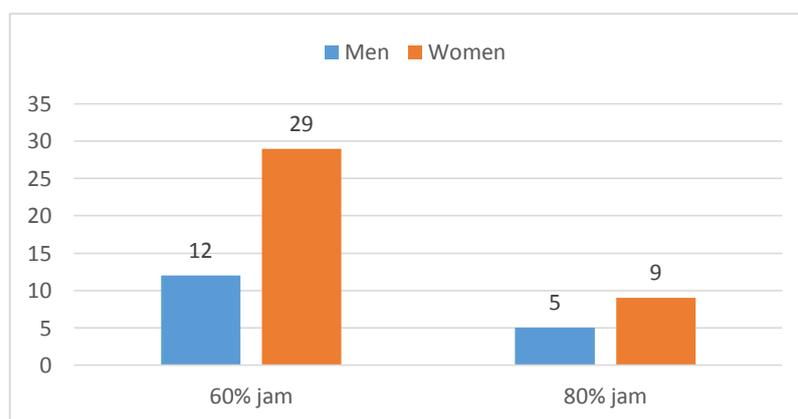
Source: Own processing

All respondents underwent the briefing and were informed about the aims of the experiment. They agreed that they do not need all information about tested products (brand name and ingredients). Respondents were divided into two groups. Both groups consist of 17 males and 38 females (55 participants). Each group tested two types of strawberry jam. One type was traditional strawberry jam with 60% of strawberries and refined sugar added, second type was strawberry jam with 80% of strawberries and fructose added (no refined sugar).

The first group was told only basic information about tested products. They were told that they are going to taste two types of strawberry jam and compare their tastes. Their task was to tell which one has better taste. They didn't know the brand of jams and also didn't know the exact ingredients. They didn't receive any additional information about jams.

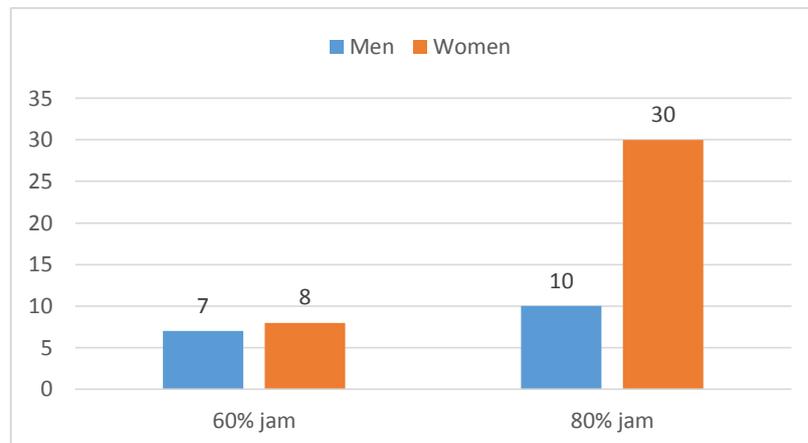
The second (control) group was told that they are going to taste two types of strawberry jam and compare their tastes for the purpose of launching the new, healthier jam to the market. Their task was also to decide which one is better, but they were told the brand name. They received additional information about the ingredients of both jams and they were told about health benefits of fructose and a healthy lifestyle and about the health risks of refined sugar.

Figure 1: First group – Which jam has better taste?



Source: Own processing

Figure 2: Second group – Which jam has better taste?



Source: Own processing

We have observed significant differences between the decisions of our two groups of respondents. First group respondents didn't know which jam is which, they just tasted the samples and decided which in their opinion has a better taste. The majority of respondents (41 out of 55) claimed that the strawberry jam with 60% of strawberries and refined sugar has better taste than the other jam (Figure 1). In the second group, respondents knew the products, they knew the exact ingredients and the brands. They also received the additional information about fructose and refined sugar health effects. Recorded opinions were significantly different. 40 out of 55 respondents claimed that the strawberry jam with 80% of strawberries and fructose has better taste than the jam with refined sugar (Figure 2).

Respondents in the second group evaluated the taste of the jams on the 5-point scale where 1 meant "not very good taste" and 5 meant "delicious". Respondents who knew the chosen brand of jams, and who claimed that the brand is their favourite, evaluated the taste of jams more positively. From 15 respondents who preferred the jam with refined sugar, 4 claimed that they do not know the brand. Their average evaluation of the taste was 3 points. 11 respondents claimed that they know the brand and it is their favourite. Their average evaluation of the taste was 4.6 points. From 40 respondents who preferred the jam with fructose, 11 claimed that they do not know the brand. Their average evaluation of the taste of jam was 3.4 points. 39 respondents claimed that they know the brand and it is their favourite. Their average evaluation of the taste of jam was 3.9 points.

At the end of the experiment, all 110 test participants were asked if they would be willing to prefer the cheaper products to more expensive and well-known products. 79 out of 110 participants claimed that they would preferred the cheaper products if they had an opportunity to taste them before buying. They also claimed that cheaper products have in many cases better taste than more expensive products (in this case jams) but without testing them in the store they do not believe the unknown brands and producers.

3. Conclusion

In our research, it was determined that there is a strong relationship between the taste of chosen products and additional information that consumers had in their disposal. The more information consumers have in disposal, the more positive is their evaluation of the taste of

products. Their opinion is related to their lifestyle and life experiences too. There is also a correlation between the taste and the brand name. Consumers rate favourite brands more positively. These results correspond with findings of several other authors, for example Krishna et al. (2014, 2016), Gilbert (2016), Lindstrom (2011) etc. Similar result was detected already in 1964 by Allison and Uhl. They conducted an experiment in which they asked testers (those who regularly consumed beer at least 3 times a week) to do the blind test on several kinds of beer. They found out that respondents were unable to distinguish their favorite brand from other brands. However, if the brands were identified, the taste of individuals' favorite beer brands have been rated much more positively.

If consumers have an opportunity to taste cheaper products before buying, they often prefer them to more expensive and well-known products. The taste of products is very important in sensory marketing. But the taste depends on many factors and it can be influenced by other senses, even by additional information. It was shown that a simple taste test of food products can easily influence the consumer behaviour. Similar results were gained by Sprott and Shimp in 2004. The authors found out that products which are typical for particular supermarkets often are of no less quality, but because they are cheaper, consumers trust them less. Supermarkets should therefore allow for sample tastings of their own products, because it could significantly increase their sales.

This study has several limitations. We did not ask respondents about their lives, health states, families and other similar characteristics. These characteristics could mildly change the results. The deeper and more detailed experiment is planned in the near future.

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EQUIVALENCE SCALE ESTIMATION FOR REGIONS OF THE RUSSIAN FEDERATION

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Abstract. In this article the equivalence scales estimation for the households of the Russian regions is made using the data from Budget Survey of Households in Russian Federation for 2013 year. Equivalence scales calculation is made by using a regression estimate of the Engel curve. Authors found a significant difference between the scale officially adopted in Russia and the equivalence scales for the Russian regions. Underestimating of the economies of scale effect by official scale can cause the deviations in the detection of poor household and targeting anti-poverty programs on them. Authors show that in the majority of Russian regions there are differences in the economies of scale for households comprising person of working age with the inclusion of an equal number of either children or pensioners. Only for 10 Russian regions the regressions coefficients before the variables indicating respectively the number of children and pensioners are the same. Also most of the Russian regions differ in the estimated equivalence scales with the OECD-modified scale, which is currently used by Eurostat. Estimated scales for the households including two adults are comparable with OECD-modified scale in one third of Russian regions, and for household including children - in 46% of Russian regions.

Keywords: equivalence scale, poverty, inequality, region, the Russian Federation

JEL Classification: I30, 32, P46

1. Introduction

Poverty measurement in households with different age, gender and other composition needs the availability of quantitative comparisons based on statistical data about distribution of the entire population or its representative sample. Most commonly used indicators in this case are household income and consumption expenditures which are collected within regular official and private household surveys. Of course, to compare welfare level of different households their income should be pre-adjusted. For this purpose equivalence scales are used.

There are many new interesting papers on the problems of equivalence scale estimating, poverty and inequality level measuring, identifying vulnerable groups for antipoverty programs. They include research on Engel curves and equivalence scales for Bangladesh (Hasan, 2016), disability costs and equivalence scales in the older population in Great Britain (Morciano et al., 2014), household expenditure patterns, equivalence scales, and poverty in Belarus (Vashchilko, 2014), subjective poverty equivalence scales for Euro Zone countries (Ahamdanech-Zarco et al., 2014), equivalence scales and housing deprivation orderings: an

example using Lebanese data (Bibi et al., 2012), equivalence scales, the cost of children and household consumption patterns in Italy (Balli & Tiezzi, 2009).

In regions of the Russian Federation per capita income is officially used for poverty measurement, which doesn't take into account economies of scale and oversimplifies differences in household composition. At the same time world practice is based on the equivalence scales estimation on regional level. Proof of this is research on impact of equivalence Scale on at-risk-of-monetary-poverty rates in the regions of Slovakia (Zelinsky & Tartal'ova, 2012), poverty in Germany (Bönke & Schröder, 2011), measuring the poverty lines for urban households in China (Chen, 2006), comparison of poverty in seven European countries and regions (Bosch et al., 1993).

First hypothesis for research – equivalence scale for regions of Russian Federation estimated by authors will have lower ranking values than the scale officially adopted in Russia. The second hypothesis – in the majority of Russian regions there is no difference in economies of scale for households comprising person of working age with the inclusion of an equal number of either children or pensioners. The third hypothesis – in one-third of Russian regions the estimated equivalence scales are comparable with the OECD-modified scale.

2. Methods

Equivalence scale calculation starts from the Engel curve (Engel, 1895) estimation. For this purpose the common shape or Working-Leser form (Leser, 1963) is used, which is well-known for optimal explaining of the assumption that if different households spend on personal benefits equal share per capita expenditures, their level of well-being is the same. Share of expenditure on food here is a traditionally used indicator for the consumption cost of such benefits. At the same time some OECD countries use the expenditures on a wider range of products. Since there is high economic differentiation of Russian regions and economy is still in transition we will use only share of expenditure on food. Regression equation (Eq. 1) is constructed for the Engel curve estimation as follows:

$$w = a + b \ln \frac{X}{n} + \lambda n_t + \beta n_d + \delta n_p \quad (1)$$

where w - share of expenditure on food in total household expenditures,

X – household consumer expenditures,

n - total number of persons in the household,

n_t - number of working-age population in household (from 16 years till the retirement age),

n_d - number of children up to 15 years inclusive;

n_p - number of pensioners in household (in Russian Federation retirement age for men is 60 years, for women - 55 years),

$a, b, \lambda, \beta, \delta$ - regression coefficients to be estimated.

Then equivalence scale (s) is calculated using the following formula (Eq. 2), which was constructed in previous authors paper (Beglova et al., 2015):

$$s = \exp \left\{ \frac{1}{b} [\lambda(1 - n_t) - \beta n_d - \delta n_p] \right\} \quad (2)$$

Data for equivalence scale estimation was taken from the Budget Survey of Households in Russian Federation for 2013 year. This survey is carried out by state statistics bodies on a regular basis in 79 regions of Russia. The survey covers the entire territory of the Russian Federation, with the exception of the Chechen Republic. The results of the survey are published at the level of Federal State Statistics Service (Rosstat), as well as at the level of the territorial bodies of Federal State Statistics Service. The sample of households is regionally representative by all indications, including gender, age, geographic location, family composition. In 2013 year survey presents data on 51320 households. All of them are included in research, because needed parameters are outlined in the questionnaire.

3. Main results and discussion

At first, Engel curve estimation for 79 regions of the Russian Federation is made. Expenditure on food is taken as spending on food of all its members within 30 days plus money equivalent of food produced in household (natural economy). All data used is available in Budget Survey of Households in Russian Federation for 2013 year.

Main results on regression coefficients for Russian regions are presented in Table 1. Coefficient b is with negative sign, so validity of Engel law is confirmed. It happens so because households having more income have a lower share of food expenditure.

Table 1: The results of the Engel curve regression for regions of the Russian Federation in 2013

#	Region	b	λ	β	δ
1	Altaysky krai	-0,33	-0,08	-0,08	-0,08
2	Krasnodarsky krai	-0,13	-0,03	-0,02	-0,01
3	Krasnoyarsky krai	-0,19	-0,04	-0,04	0,00003
4	Primorsky krai	-0,14	-0,03	-0,03	-0,02
5	Stavropolsky krai	-0,17	-0,03	-0,05	-0,01
6	Habarovsky krai	-0,23	-0,07	-0,05	-0,05
7	Amurskaya oblast	-0,17	-0,03	-0,05	-0,01
8	Arhangelskaya oblast	-0,19	-0,06	-0,05	-0,04
9	Astrahanskaya oblast	-0,14	-0,03	-0,04	-0,01
10	Belgorodskaya oblast	-0,21	-0,04	-0,03	-0,01
11	Bryanskaya oblast	-0,09	-0,0002	-0,03	0,02
12	Bladimirskaya oblast	-0,19	-0,05	-0,03	-0,02
13	Belgogradskaya oblast	-0,23	-0,06	-0,05	-0,04
14	Vologodskaya oblast	-0,21	-0,07	-0,07	-0,07
15	Voronezhskaya oblast	-0,27	-0,08	-0,05	-0,04
16	Nizhegorodskaya oblast	-0,20	-0,06	-0,06	-0,04
17	Ivanovskaya oblast	-0,10	-0,02	-0,02	0,01
18	Irkutskaya oblast	-0,23	-0,02	-0,03	0,01
19	Republic of Ingushetia	-0,14	-0,001	0,01	0,01
20	Kaliningradsky krai	-0,21	-0,06	-0,04	-0,03
21	Tverskaya oblast	-0,13	-0,04	-0,04	-0,02
22	Kaluzhskaya oblast	-0,14	-0,03	-0,03	-0,005
23	Kamchatskaya oblast	-0,17	-0,03	-0,04	-0,03
24	Kemerovskaya oblast	-0,21	-0,07	-0,03	-0,05
25	Kirovskaya oblast	-0,19	-0,03	-0,05	0,002
26	Kostromskaya oblast	-0,23	-0,06	-0,05	-0,05
27	Samarskaya oblast	-0,14	-0,03	-0,03	-0,02
28	Kurganskaya oblast	-0,34	-0,09	-0,07	-0,12
29	Kurskaya oblast	-0,22	-0,06	-0,04	-0,05
30	Saint Petersburg	-0,10	-0,06	-0,03	-0,04

31	Leningradskaya oblast	-0,07	-0,03	-0,03	-0,01
32	Lipetskaya oblast	-0,29	-0,09	0,03	-0,05
33	Magadanskaya oblast	-0,10	-0,05	-0,05	-0,05
34	Moscow	-0,09	-0,04	-0,03	-0,01
35	Moskovskaya oblast	-0,14	-0,05	-0,06	-0,03
36	Murmanskaya oblast	-0,14	-0,04	-0,03	-0,04
37	Novgorodskaya oblast	-0,14	0,004	-0,02	0,04
38	Novosibirskaya oblast	-0,34	0,006	-0,07	-0,003
39	Omskaya oblast	-0,23	-0,04	-0,06	-0,02
40	Orenburgskaya oblast	-0,26	-0,05	-0,03	-0,02
41	Orlovskaya oblast	-0,23	-0,06	-0,03	-0,03
42	Penzenskaya oblast	-0,22	-0,03	-0,01	0,02
43	Permsky krai	-0,25	-0,06	-0,06	-0,05
44	Pskovskaya oblast	-0,25	-0,07	-0,06	-0,06
45	Rostovskaya oblast	-0,28	-0,09	-0,03	-0,06
46	Ryazanskaya oblast	-0,20	-0,05	-0,02	-0,03
47	Saratovskaya oblast	-0,21	-0,06	-0,05	-0,01
48	Sahalinskaya oblast	-0,21	-0,04	-0,05	-0,01
49	Sverdlovskaya oblast	-0,12	-0,04	-0,02	0,002
50	Smolenskaya oblast	-0,14	-0,08	-0,01	-0,03
51	Tambovskaya oblast	-0,37	-0,09	-0,06	-0,07
52	Tomskaya oblast	-0,18	-0,05	-0,04	-0,04
53	Tulskaya oblast	-0,13	-0,04	-0,03	-0,02
54	Tumenskaya oblast	-0,15	-0,06	-0,04	0,02
55	Ulyanovskaya oblast	-0,27	-0,06	-0,07	-0,05
56	Chelyabinskaya oblast	-0,15	-0,05	-0,02	-0,03
57	Chitinskaya oblast	-0,30	-0,06	-0,04	-0,06
58	Chukotsky auton. okrug	-0,15	-0,09	-0,05	-0,07
59	Yaroslavskaya oblast	-0,16	-0,04	-0,04	-0,03
60	Republic of Adygea	-0,20	-0,04	-0,05	0,0004
61	Republic of Bashkortostan	-0,27	-0,04	-0,07	-0,02
62	Republic of Buryatia	-0,23	-0,04	-0,06	-0,05
63	Republic of Dagestan	-0,29	-0,07	-0,05	-0,04
64	Kabardino-Balkar Republic	-0,29	-0,02	-0,03	-0,02
65	Altai Republic	-0,25	-0,07	-0,02	-0,04
66	Republic of Kalmykia	-0,07	-0,04	-0,02	-0,003
67	Republic of Karelia	-0,17	-0,06	-0,03	-0,01
68	Komi Republic	-0,10	-0,02	-0,02	0,01
69	Republic of Mary El	-0,29	-0,07	-0,07	-0,06
70	Republic of Mordovia	-0,25	-0,08	-0,06	-0,08
71	Republic of North Ossetia-Alania	-0,29	-0,06	-0,04	-0,05
72	Karachay-Cherkess Republic	-0,32	-0,06	-0,03	-0,05
73	Republic of Tatarstan	-0,25	-0,04	-0,04	-0,004
74	Tyva Republic	-0,20	-0,07	-0,04	-0,04
75	Udmurt republic	-0,18	-0,03	-0,04	-0,01
76	Republic of Khakassia	-0,26	-0,05	-0,07	-0,04
77	Chuvash Republic	-0,26	-0,07	-0,03	-0,04
78	Republic of Sakha (Yakutia)	-0,16	-0,03	-0,04	-0,02
79	Jewish auton. oblast	-0,25	-0,03	-0,06	-0,003

Source: authors calculation

Coefficient of determination differs through regions mainly from 0.13 to 0.5 which is typical for such kind of regression. It can be increased by using more fictive variables.

As shown in Table 1, regressions coefficients β and δ before the variables indicating respectively the number of children and pensioners are the same only for 10 regions: Altaysky

krai, Habarovskiy krai, Vologodskaya oblast, Republic of Ingushetia, Kirovskaya oblast, Magadanskaya oblast, Orlovskaya oblast, Pskovskaya oblast, Tomskaya oblast and Tyva Republic. Moreover, the same regression coefficients λ and β are seen for such regions as Altayskiy krai, Krasnoyarskiy krai, Primorskiy krai, Vologodskaya oblast, Nizhegorodskaya oblast, Ivanovskaya oblast, Tverskaya oblast, Kaluzhskaya oblast, Samarskaya oblast, Leningradskaya oblast, Permskiy krai, Yaroslavl'skaya oblast, Komi Republic, Republic of Mary El and Republic of Tatarstan (15 regions). The same coefficients in the regression equation can be interpreted as no statistically significant difference in the economies of scale for households with one or more persons of working age with the inclusion of an equal number of either children or the elderly for mentioned above regions.

In Table 2 authors compare the estimated scales for different Russian regions with the official scale in the Russian Federation and the OECD-modified scale.

Table 2: The estimated equivalence scale for Russian regions in comparison with the official scale in Russia and OECD-modified scale

Household composition	Official scale in Russia	OECD-modified scale	Estimated scale	Region of the Russian Federation
1 adult	1	1	1	All Russian regions
to the second adult	1	0.5	<0.25	28 regions: Republic of Ingushetia, Novgorodskaya oblast, Novosibirskaya oblast, Bryanskaya oblast, Kabardino-Balkar Republic, Irkutskaya oblast, Penzenskaya oblast, Karachay-Cherkess Republic, Republic of Tatarstan, Belgorodskaya oblast, Chitinskaya oblast, Republic of North Ossetia-Alania, Komi Republic, Udmurt republic, Kirovskaya oblast, Republic of Bashkortostan, Republic of Buryatia, Jewish auton. oblast, Ivanovskaya oblast, Republic of Adygea, Republic of Sakha (Yakutia), Kamchatskaya oblast, Sahalinskaya oblast, Republic of Khakassia, Stavropolskiy krai, Omskaya oblast, Amurskaya oblast, Orenburgskaya oblast
			0.25-0.4	27 regions: Ryazanskaya oblast, Altayskiy krai, Tambovskaya oblast, Krasnoyarskiy krai, Samarskaya oblast, Republic of Dagestan, Primorskiy krai, Astrahanskaya oblast, Kaluzhskaya oblast, Permskiy krai, Ulyanovskaya oblast, Orlovskaya oblast, Kostromskaya oblast, Krasnodarskiy krai, Republic of Mary El, Volgogradskaya oblast, Chuvash Republic, Kaliningrad region, Kurganskaya oblast, Murmanskaya oblast, Saratovskaya oblast, Tomskaya oblast, Yaroslavl'skaya oblast, Kurskaya oblast, Vladimirskaya oblast, Voronezhskaya oblast, Nizhegorodskaya oblast
			0.4-0.6	18 regions: Tulskaia area, Altai Republic, Lipetskaya oblast, Arhangel'skaya oblast, Pskovskaya oblast, Kemerovskaya oblast, Habarovskiy krai, Republic of Mordovia, Vologodskaya oblast, Tverskaya oblast, Rostovskaya oblast, Sverdlovskaya oblast, Chelyabinskaya oblast, Leningradskaya oblast, Republic of Karelia, Tyva Republic, Moskovskaya oblast, Tyumenskaya oblast
			>0.6	6 regions: Moscow, Republic of Kalmykia, Magadanskaya oblast, Smolenskaya oblast, Saint Petersburg, Chukotskiy auton. okrug

to each child	1	0.3	<0.25	29 regions: Republic of Ingushetia, Lipetskaya oblast, Penzenskaya oblast, Karachay-Cherkess Republic, Chuvash Republic, Altai Republic, Kabardino-Balkar Republic, Smolenskaya oblast, Republic of Tatarstan, Komi Republic, Orenburgskaya oblast, Rostovskaya oblast, Ryazanskaya oblast, Orlovskaya oblast, Vladimirskaya oblast, Kemerovskaya oblast, Republic of North Ossetia-Alania, Novgorodskaya oblast, Irkutskaya oblast, Belgorodskaya oblast, Chitinskaya oblast, Sverdlovskaya oblast, Krasnodarsky krai, Chelyabinskaya oblast, Tambovskaya oblast, Republic of Karelia, Kaliningradskaya oblast, Kurskaya oblast, Tyva Republic
			0.25-0.4	34 regions: Voronezhskaya oblast, Republic of Dagestan, Novosibirskaya oblast, Kurganskaya oblast, Krasnoyarsky krai, Udmurt republic, Samarskaya oblast, Kostromskaya oblast, Republic of Mary El, Republic of Kalmykia, Ivanovskaya oblast, Murmanskaya oblast, Republic of Mordovia, Saratovskaya oblast, Jewish auton. oblast, Republic of Adygea, Altaysky krai, Volgogradskaya oblast, Kaluzhskaya oblast, Tomskaya oblast, Tulskaaya oblast, Ulyanovskaya oblast, Habarovskiy krai, Kirovskaya oblast, Primorsky krai, Republic of Bashkortostan, Republic of Buryatia, Sahalinskaya oblast, Yaroslavl'skaya oblast, Permsky krai, Republic of Khakassia, Astrahanskaya oblast, Arhangel'skaya oblast, Pskovskaya oblast
			>0.4	16 regions: Saint Petersburg, Republic of Sakha (Yakutia), Kamchatskaya oblast, Omskaya oblast, Tyumenskaya oblast, Stavropolsky krai, Nizhegorodskaya oblast, Moscow, Amurskaya oblast, Chukotsky auton. okrug, Bryanskaya oblast, Tverskaya oblast, Vologodskaya oblast, Moskovskaya oblast, Leningradskaya oblast, Magadanskaya oblast

Source: Hagenaaers, de Vo & Zaidi, 1994 and authors calculation

Results in Table 2 show us a significant difference between the scale officially adopted in Russia and the equivalence scales for Russian regions obtained by the authors. Underestimating of the economies of scale effect by official scale can cause the deviations in the detection of poor household and targeting anti-poverty programs on them. Also, the majority of Russian regions differ in the estimated equivalence scales with the OECD-modified scale, which is currently used by Eurostat. Estimated scales for households including two adults are comparable with OECD-modified scale only in one third of Russian regions, and for household including children - in 46% of Russian regions.

4. Conclusion

Based on the research, the following conclusions are made:

1. There is a significant difference between the scale officially adopted in Russia and the equivalence scales for Russian regions estimated by the authors, which could be seen from the comparison of results in Table 2. The first hypothesis is confirmed.
2. In the majority of Russian regions there are differences in economies of scale for households comprising person of working age with the inclusion of an equal number of either children or pensioners. Only for 10 Russian regions the regressions coefficients β

and δ before the variables indicating respectively the number of children and pensioners are the same. The second hypothesis is refuted.

3. Estimated scales for households including two adults are comparable with OECD-modified scale in one third of Russian regions, and for household including children - in 46% of Russian regions. The third hypothesis is confirmed.

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MODERN TRENDS OF REGIONAL BANK SYSTEM IN THE CONTEXT OF GLOBALIZATION

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Abstract. In the article considered the institutional conditions for the development the banking system in a globalized economy; investigated the impact of financial globalization processes on the functioning of the national banking sector identification and considering the controllability of formation areas; identified the basic principles of the domestic banking system paradigm and its institutional development direction. Credit component of the economy is closely linked to the financing of sectors and industries that can compete in the market, since otherwise loans with significant probability cannot return to the lender. It should be noted that at present the consequences of the global financial crisis were the tightening of conditions for granting credit, higher interest rates, reduced credit terms, which generally has a negative effect on the activity of trading enterprises. In this regard, in order to further develop trade enterprises of the second level banks need to support commercial enterprises, in reducing the interest rates. From the analysis of the targets, obtained the following conclusions can be drawn based on the use of structural econometric model. Features equations lead to the conclusion about the possibility of their use. These predicted values adequately describe the impact of the investigated indicators on the economic growth in Kazakhstan. Thus, a comprehensive study of the regional bank lending conditions in the Republic of Kazakhstan and in the context of globalization development, revealed its features, and identifies ways to improve efficiency.

Keywords: bank, globalization, credit

JEL Classification: E51, G20, G21

1. Introduction

Investigated the problem of bank lending to small and medium-sized businesses at the regional level, it is advisable to consider, based on the results of the analysis, the theoretical foundations of the mechanism of functioning of bank lending, as well as the international experience of its organization (Medvedev, 2000).

An important task of every commercial bank in the framework of a customer-oriented approach to the implementation of the banking business is to create effective customer base borrowers - trade organizations (Akerlof, 1970). To achieve the optimal composition of the clientele must be met certain requirements. It depends on the profitability of the bank as a whole and the profitability of credit operations in particular (Minsky, 1986).

Optimization of banks among its customers, namely, trade organizations, makes it necessary to develop a methodology to determine the financial condition of small and medium-sized businesses in the context of globalization (Nakipova, 2006).

1.1. Concept headings

The objective of this study is to provide theoretical analysis and justification of methods for the long-term planning of the regional bank system development in the context of globalization (Rousseau, 2001).

The methods of alternative forecast scenarios makes it possible to form a comprehensive vision of the bank system development within the limited number of strategic scenarios; also, the method of extrapolation by analytical trend equalization has been applied (Morozova, 2000).

The models obtained by means of regression analysis facilitate predicting the options of the economic processes and phenomena development, studying the trends of changing economic indicators, i.e. they are the tools for scientifically justified predictions (Schaller, 1993).

1.1.1. Results

Credit status of the payment discipline led to the development in recent years this form of bank lending as a bill credit. This loan is granted financial and sustainable commercial enterprises in the form of a simple or a bill of exchange issued by the Bank. Commercial enterprises it allows you to use it as a means of payment in the calculations. The Bank is profitable because it does not need to attract additional financial resources, so the interest rate on the promissory note loan is much lower than conventional loans. Bills loan is for a period prior to the first date of presentation of the bill to the bank for payment (Belov, 2001).

Reimbursement method - is lending to foreign trade, based on a combination of acceptance and compensation (reimbursement) means accepting bank (Mintzberg, 2001).

The purpose of the loan - providing the importer payments on foreign trade contract. Terms of reimbursement loan (limit, loan term, interest rate policies, use and repayment) are defined by the agreement concluded between the banks (Drucker, 2007). Technically, when reimbursement crediting letters of credit and bills of exchange (drafts).

Bank of importer within the agreed limit on reimbursement loan exhibits letters of credit to pay for imported goods. The letter of credit contains the obligation of the bank or the bank instructed exporter to accept and pay at maturity bills of exchange.

As for foreign trade contract payment by installments is not provided, the exporter receives payment immediately and paying out the amount recorded on the bank accounts of the importer as his debt on the loan reimbursement (Armstrong, 2006).

The interest rate on the loan reimbursement is determined by the current market discount rate of bills and acceptance committee. Bank importer repays the debt on the loan by transferring funds to the exporter's bank. In turn, the importer's bank receives compensation made, payments from its client-importer.

When calculating the predicted values and planning of financial resources in relation to economic growth is the most preferred construction of a simulation model, which is a detailed diagram to describe in detail the structure and behavior of the object under study (Gordievsky, 2007).

Simulation models are used to obtain information about the simulated system and to develop in the future relevant assessments that are suitable for the formation of solutions (Kotler, 1999).

Indicators used by the experimenter analyzed in terms of their acceptability and corrected within an acceptable range. If they need to be changed, then the experimenter can change a control parameter. Once the experimenter concludes that achieving the optimum solution, it takes the system to settlements for the next year (Steinbruner, 2006).

Thus, the operation of the simulation system allows you to find variants of the forecast, providing the best balance between the sources of formation of financial and credit resources. Many possible solutions are calculated by computer (Wilson, A, Starbuck B, 2006).

Draw forecasting indicators for ongoing research: the GDP of the Republic of Kazakhstan, the turnover of small and medium-sized businesses, credit investments of commercial banks in SME equity capital to small and medium-sized businesses on the basis of multifactor models shown in Table 1.

Multi-factor model: variable Y_1 (volume GDP) depends on the turnover of small and medium-sized businesses X_1 , credit investments of commercial banks of Kazakhstan X_2 , and equity of small and medium-sized enterprises X_3 .

Taking the multiple linear regression model of the form:

$$Y_1 = a_0 + a_1 x_1 + a_2 x_2 + a_3 x_3 \quad (1)$$

- Where Y_1 – volume of GDP
 X_1 – turnover of small and medium-sized businesses
 X_2 – credit investments of commercial banks of Kazakhstan
 X_3 – equity capital to small and medium-sized businesses.

Define evaluation a_0, a_1, a_2, a_3 parameters.

Table 1: Dynamics of economic indicators of the Republic of Kazakhstan for the period of 2005-2013 (bn tenge)

Indicators	2005	2007	2008	2009	2010	2011	2012	2013
	1	2	3	4	5	6	7	8
GDP (Y_1)	2599,9	3250,6	3776,3	4449,8	5870,1	7590,6	9738,8	11613,9
Turnover of small and medium-sized businesses (X_1)	1273,5	1645,9	1938,9	2534	3617	4429,9	5866	7907,7
Loans to second-tier banks (X_2)	276,2	489,8	672,4	978,1	1484,2	2592	3583,7	3800,5
Equity SMEs (X_3)	114,6	148,1	174,5	228,1	325,5	398,6	527,9	711,7

Source: www.nationalbank.kz

Ratings a_0, a_1, a_2, a_3 counts by the method of least squares:

The regression equation with the parameter estimates is as follows:

$$y = 1414321 - 7,712x_1 + 0,9866x_2 + 94,7703x_3 \quad (2)$$

Based on the results of this equation, it can be noted that all indicators - factorial signs (trade, credit investments of the second-tier banks of Kazakhstan, the equity of small and medium-sized businesses) - have a positive influence on a productive indicator (volume of GDP).

Defining the parameters of the equation, it is necessary to identify the closeness of the relationship productive factor y and X_1, X_2, \dots, X_m signs using total factor r_y of multiple correlation, which is generally defined by the formula:

$$r_y = \sqrt{\frac{\sigma_{y12..m}^2}{\sigma_x^2}} = \sqrt{1 - \frac{\sigma_{y(12..m)}^2}{\sigma_y^2}} \quad (3)$$

Where $\sigma_{y12..m}^2$ – factorial variance
 $\sigma_{y(12..m)}^2$ – residual dispersion
 σ_y^2 – effective dispersion characteristic.

$$\sigma_{y12..m}^2 = \frac{\sum_{i=1}^n (y_i - \bar{y})^2}{n-1} \quad (4)$$

$$\sigma_{y(12..m)}^2 = \frac{\sum_{i=1}^n (y_i - y_i)^2}{n-1} \quad (5)$$

$$\sigma_y^2 = \frac{\sum_{i=1}^n (y_i - \bar{y})^2}{n-1} \quad (6)$$

Where y_i – estimated value of resultant variable
 \bar{y} – the average value of a productive attribute
 $\sigma_{y12..m}^2$ – dispersion y obtained by considering factors X_1, X_2, \dots, X_m
 $\sigma_{y(12..m)}^2$ – dispersion y obtained by considering factors X_1, \dots, X_m .

The denser the actual values of the y_i regression lines are arranged, the smaller the residual dispersion (greater factorial dispersion) and, hence more value r_y .

Thus, the multiple correlation coefficients as the value of the residual dispersion characteristic quality selection regression equation.

To achieve our goal of research of influence bank lending to SMEs in the sphere of economic growth in Kazakhstan was used econometric model in the form of a system of joint (simultaneous) equations.

To do this, we have a system of joint simultaneous equations (structural model), where y – the endogenous variables, x_1, x_2, \dots, x_K – exogenous variables.

$$\begin{cases} y = a_0 + a_1x_1 + a_2x_2 + a_3x_3 \\ x_2 = a_0 + a_1x_4 + a_2x_5 \\ x_3 = a_0 + a_1x_6 + a_2x_7 \end{cases} \quad (7)$$

Algorithm realization of predictive calculations submitted in the following form:

Given a spatio-temporal information. The forecast will consist of a series of steps.

Step 1. Assume that for each year (the time) found the system (7).

Step 2. Find the predicted values of one of the methods of predicting the dynamic series (which we considered above the exponential smoothing method), which are presented in Table 2.

Table 2: Forecast of economic indicators on the basis of single-factor models (bn tenge)

Years	The forecast on the basis of single-factor models		
	turnover of small and medium-sized businesses	the value of credit investments of banks in the Republic of Kazakhstan	equity of small and medium-sized businesses
2015	8634,0800	4773,0000	777,0300
2016	9539,9900	5325,4300	858,5600
2017	10445,8900	5877,8700	940,0900
2018	11351,7900	6430,3100	1021,6200

Source: own processing

Step 3: Determination of the predicted values of the GDP of Kazakhstan by multivariate method using the forecast data: the value of credit investments of banks of Kazakhstan, trade, equity, obtained using time series (Table 3).

Table 3: Forecast study of economic indicators based on multifactor models (bn tenge)

Years	Forecast based on multifactor models		
	GDP of Kazakhstan	the value of credit investments of banks in the Republic of Kazakhstan	turnover of small and medium-sized businesses
2015	13183,5723	4773,0000	8634,0800
2016	14469,5648	5325,4300	9539,9900
2017	15755,6442	5877,8700	10445,8900
2018	17041,7237	6430,3100	11351,7900

Source: own processing

Step 4: Determination of the predicted values of the endogenous variable and the calculation of the confidence interval according to the structural equation (Table 4).

Table 4: Forecast study of economic indicators based on multifactor models (bn tenge)

Years	Forecast volume of Kazakhstan's GDP	The upper confidence interval	The lower confidence interval
2015	13183,57	13785,825	13065,760
2016	14469,56	14527,983	14127,918
2017	15755,64	15812,739	15430,674
2018	17041,72	17496,960	16925,895

Source: own processing

$$\Delta Y_g^*(T+l) = \pm t_{\alpha, N-(G-1)-K-1} \cdot \sigma_{\varepsilon_i}(g) \quad (8)$$

Where $\sigma_{\varepsilon_i}(g) = \sqrt{\frac{\sum_{j=1}^N (y_{gi} - y_g)^2}{N-1}}$ – dispersion deviation values calculated from the actual Y_i according to the formula (7).

Prediction model according to the given algorithm is easy to implement if the model (8) is a recursive process, i.e.

$$Y_1 = f_1(\bar{X}) \quad (8)$$

Where $\bar{X} = (X_1, X_2, \dots, X_K)$

From the analysis of the targets, obtained the following conclusions can be drawn based on the use of structural econometric model. Features equations lead to the conclusion about the possibility of their use. These predicted values adequately describe the impact of the investigated indicators on the economic growth in Kazakhstan (Tasmambetova, 2008).

Thus, a comprehensive study of the regional bank lending conditions in the Republic of Kazakhstan industrial-innovative development, revealed its features, and identify ways to improve efficiency.

2. Conclusion

This paper is an output of the science project of the targets, obtained the following conclusions can be drawn based on the use of structural econometric model. Features equations lead to the conclusion about the possibility of their use. These predicted values adequately describe the impact of the investigated indicators on the economic growth in Kazakhstan.

Thus, a comprehensive study of the regional bank lending conditions in the Republic of Kazakhstan industrial-innovative development, revealed its features, and identify ways to improve efficiency.

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IMPLEMENTATION OF ECONOMIC VALUE ADDED IN CONDITIONS OF GLOBALIZATION

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Abstract. Globalization is an unstoppable phenomenon and it is impossible for a company to avoid it. Markets of different countries open and become one big worldwide market. This brings a lot of opportunities for a company, but also means that other companies can seize these opportunities. Company must be really competitive and effective in order to be successful. That is why they need to increase their performance. There are many modern managerial styles that can help a company to achieve increase in its performance. In order to gain increased performance a company must first be able to measure it, and compare the results of this measurement in different time periods. There are many methods to measure company performance. One of the most suitable and widely used all around the world is Economic Value Added. This performance indicator along with identification of the key value generators and successful implementation of Value Based Management can help a company to significantly increase the performance of a company and thus increase its value and competitiveness in the global markets. Economic Value Added, if implemented correctly, has become a very useful tool to ensure success in this time. Thou it may sound easy, it is very complex and difficult process.

Keywords: Economic Value Added, company performance, company value

JEL Classification: M10, D46, G32

1. Implementation of Economic Value Added in chosen company

One of the modern methods of financial-economic analysis is the Economic Value Added (EVA). EVA quantifies the value of the business added to it by operating activities in a certain period. (Cheng, 2011)

$$EVA = NOPAT - WACC \times C \quad (1)$$

Where:

NOPAT - Net operating profit after taxes increased by debit interest

WACC - Weighted average cost of capital

C – Total capital(Niznikova et al., 2015)

The first variable, which had to be specified, in the context of EVA quantification, is the net operating profit after taxes increased by debit interest (NOPAT). This was determined by multiplying the earnings before interest and taxes (EBIT) and the adjusted tax rate. (Richtarova, 2015) Equation (2) was used to determine this tax rate. The development of this indicator is displayed in Table 1. (Hahn, G. J., & Kuhn, H. (2010)

$$t = \frac{\text{tax payable on income from ordinary activities}}{\text{profit or loss from ordinary activities before tax}} \quad (2)$$

Table 1: Quantification of NOPAT in years 2011 - 2015

	2011	2012	2013	2014	2015
NOPAT	14,50363427	76869,99963	335571,1373	206236,1858	447011,0671
EBIT	1 231 767,37	1 015 791,77	1 306 814,44	1 385 844,30	1 642 949,20
Adjusted tax rate	0,000009972	0,064892615	0,218067986	0,126248616	0,234657624

Source: Own processing.

The inputs in the calculation of EVA indicator contain also other variables. Very important variable and often the most difficult to calculate is the determination of the cost of capital (WACC). (Todorov, 2016) Due to the structure of capital, we divided the capital into equity, interest-bearing foreign capital and non-interest foreign capital.

In case if we consider all the commitments as interest-bearing, this could significantly affect the overall costs for the capital. (Zhen-Jia-Liu, 2016), (Kunasz, 2008) Therefore, we have included foreign capital in non-interest liabilities with the exception of loans, that we consider interest-bearing foreign capital. Because it is a non-interest capital, already in its title it shows that the cost will be zero. (Lisztwanova, 2013)

The costs of interest-bearing foreign capital represent interest paid on bank loans. We have calculated the interest rate as an average interest rate of all bank loans of enterprise. (Zdenek, 2014) The total cost of interest-bearing foreign capital is the multiplication of the average interest rate of loans (r_d), which is reduced by the impact of tax and the total amount of interest-bearing foreign capital. (Matejova et al., 2015) The development of costs of interest-bearing foreign capital is displayed in Table 2.

Table 2: The development of cost of interest-bearing foreign capital

	2011	2012	2013	2014	2015
Interest-bearing foreign capital	1 594 105,54	1 809 180,00	3 603 154,14	3 527 582,36	3 030 423,99
Share of interest-bearing foreign capital on total capital	0,3020	0,2752	0,3669	0,3108	0,1933
Average interest rate (r_d)	0,0458	0,0496	0,0512	0,0538	0,0492
Average interest rate – Tax	0,0371	0,0402	0,0415	0,0436	0,0399
Costs of interest-bearing foreign capital	59 141,32	72 729,04	149 530,90	153 802,59	120 913,92

Source: Own processing.

The most problematic area in calculating the cost of capital is to determine the costs of equity capital. (Ponisciakova et al., 2015) These were determined using the modular method. The value of the cost of equity is the multiplication of the risk-free interest rate (r_f) plus premium for risk and the total value of equity. (Hřebíček et al., 2014) Risk-free interest rate was determined as the average interest rate on 10-year government bonds in the respective year. (Zakic, 2012) Its overview is presented in Table 3.

Table 3: The development of interest rates on 10-year government bonds for the chosen period

	2011	2012	2013	2014	2015
January	4,16%	5,22%	3,93%	2,54%	1,097%
February	4,24%	4,98%	3,96%	2,48%	0,662%
March	4,32%	4,91%	3,95%	2,47%	0,52%
April	4,33%	4,81%	3,01%	2,47%	0,96%
May	4,33%	4,80%	2,52%	2,73%	0,92%
June	4,39%	4,80%	2,45%	2,73%	1,15%
July	4,55%	4,41%	3,15%	2,07%	1,25%
August	4,55%	4,24%	3,15%	1,81%	0,99%
September	4,25%	4,20%	3,15%	1,57%	0,89%
October	4,33%	4,20%	3,15%	1,39%	0,75%
November	4,72%	4,14%	3,15%	1,38%	0,71%
December	5,21%	3,92%	2,69%	1,22%	0,72%
The average annual interest rate on 10-year government bonds (r_f)	4,45%	4,55%	3,19%	2,07%	0,89%

Source: Own processing based on <http://www.nbs.sk/sk/statisticke-udaje/menova-a-bankova-statistika/statistikadlhodobych-urokovych-sadzieb>

Risk premiums can be divided:

- risk premium for size of an enterprise,
- risk premium for lower business stability,
- risk premium for lower financial stability. (Ismail, 2011)

Premium for the size is assessed as follows. At the beginning it is necessary to determine the amount of total capital, which is the sum of equity and interest-bearing foreign capital. (Musa, 2008) If its value is less or equal to 3 700 000 Euro, the premium for the size of the company is zero. If the value is higher or equal to 111 000 000 Euro, the premium for company size is 5%. If the value is between 3 700 000 and 111 000 000 Euro, the premium for the size of the company is determined by equation (3) (Chen & Zhang, 2011):

$$\frac{(3 - \text{payable resources in billions})^2}{168,2} \quad (3)$$

It should be noted that the information presented in Czech crowns were calculated by the rate of the European Central Bank at the end of that particular year. (Jancovicova Bognarova & Basova, 2015) Calculation of premium for size is shown in Table 4.

Table 4: The determination of premium for the size of the company

	2011	2012	2013	2014	2015
Payable resources	3 245 615,15	4 146 054,51	6 795 825,05	7 631 819,91	8 094 359,85
Rate CZK/EUR	25,787	25,151	27,427	27,735	27,023
Premium for company size	0,00	0,0534	0,0533	0,0532	0,0532

Source: Own processing.

It was necessary to establish a premium for the risk of lower business stability, which is determined as follows. If $\frac{EBIT}{assets} < 0$, premium is 10%, if $\frac{EBIT}{assets} > r_d * \frac{\text{payable resources}}{assets}$,

premium is zero. In a case when $r_d * \frac{\text{payable resources}}{\text{assets}} > \frac{\text{EBIT}}{\text{assets}} > 0$, the premium is calculated by equation (4) (Ministry of Industry and Trade ČR, 2012):

$$\frac{(r_d * \frac{\text{payable resources}}{\text{assets}} - \frac{\text{EBIT}}{\text{assets}})^2}{(r_d * \frac{\text{payable resources}}{\text{assets}})^2} * 0,1 \quad (4)$$

Calculation of risk premium for lower business stability is shown in the Table 5.

Table 5: Determination of the risk premium for lower business stability

	2011	2012	2013	2014	2015
EBIT/assets	0,2660	0,1719	0,1495	0,1366	0,1184
$r_d * (\text{payable resources}/\text{assets})$	0,0272	0,0298	0,0338	0,0343	0,0247
Risk premium for lower business stability	0	0	0	0	0

Source: Own processing.

The last premium, which is necessary to calculate, is a risk premium for lower financial stability, which reflects the evolution of gross liquidity and is determined as follows. If the indicator of total liquidity is less or equal to 1, the premium is 10%, if it is equal or higher than 2,5, the premium is 10%. If its value is between 1 – 2,5, the risk premium is calculated by equation (5) (Shi et al., 2012):

$$\frac{(2,5 - \text{total liquidity})^2}{(2,5 - 1)^2} * 0,1 \quad (5)$$

Calculation of risk premium for lower financial stability is shown in Table 6.

Table 6: Determination of the risk premium for lower financial stability

	2011	2012	2013	2014	2015
Total liquidity	0,28	0,69	1,20	0,58	0,51
Risk premium for lower financial stability	0,1	0,1	0,075	0,1	0,1

Source: Own processing.

The development of cost of equity is then as follows.

Table 7: The development cost of equity capital

	2011	2012	2013	2014	2015
Equity	1651509,61	2336874,51	3192670,91	4104237,55	5063935,85
$r_f + \text{premiums}$	0,15	0,20	0,16	0,17	0,24
Cost of equity	247726,44	467374,90	510827,35	697720,38	1215344,61

Source: Own processing.

In the end we can calculate Economic Value Added for the period of years 2011 – 2015 by using equation (6):

$$EVA = NOPAT - C \times (r_d \times (1 - 0,19) \times \frac{CF_{ib}}{c} + (r_f + \text{premiums}) \times \frac{E}{c}) \quad (6)$$

Where:

C – Total capital,

C_{Fib} – Interest-bearing foreign capital,

E – Equity. (Majercak & Majercakova, 2013)

Table 8: Development of Economic Value Added

	2011	2012	2013	2014	2015
EVA	-306850,0646	-463190,5179	-324686,2175	-645209,1822	-889101,995

Source: Own processing.

Based on the calculations above it can be concluded that the company exhibits throughout the period under negative Economic Value Added. Its development in the years 2011 - 2014 is negative until year 2015, when the value of the indicator has increased, but remains negative. That means the company does not create value during the reporting period.

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GLOBALIZATION AND ITS IMPACT ON VALUES OF INFORMATION SOCIETY

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Abstract. The paper deals with the impact of globalization on shaping values in information society. The introductory chapter is devoted to definition of globalization, its various types such as: general environmental constraints, cultural globalization, globalization in communication and in the new era of information technology and political globalization. It further points out the positive and negative aspects of globalization and its current challenges. As the positive aspects are considered the following: overcome limitations of time and space, support of labour mobility, creative business clusters, implementation of transnational projects, global capital appreciation i.e. The negative are: restructuring of the labour market, growing number of unemployed, gradually increasing of international criminality, terrorism and violence, significant gap and inequity in the distribution of wealth of the world, global warming i.e. It further describes the values in information society affected by globalization. The paper provides with briefly summary of values such as: produce what the customer is interested in, trying to reduce the length of distribution channels, discuss and organize the processing and marketing activities, compare your business with global companies similar focus, promote innovative way of thinking own employees and consider a knowledge of workers and information i.e. The paper contains definition of customer value in the age of globalization. The objective of this paper is to describe tackle and emphasise the importance of values.

Key words: customer value, globalization, information society, value.

JEL Classification: M30, F60, D46

1. Globalization

In a current post-modern society, globalization is perceived as a phenomenon, which is a key factor in the development of the world economy. This phenomenon mutually interconnect economies of individual nations in the world economy to produce a global structure of the economy.

In literature we can find wide interpretation of this term. According to P. Drucker (1986) globalization is: „*A fundamental change in the world economy, with changes cause structural shifts in international markets, product mix and commerce in the developed countries. The way how the production is made has been changed.*“

Globalization can be also considered as a process where its drive force is liberalization and technological progress (Ceniga & Sukalova, 2015). Current society passes through

transformation which is conditioned by the technological boom, technological progress and satiation information. This has resulted in the transition so-called **information society**. This recent dynamic development of information technology and shaping the information society are considered to be the main factors of the globalization process. It is a complex process that has more dimensions:

- economic,
- social,
- political.

Globalization as a „megatrend“ leads to the international networks in all areas i.e. economics, politics, culture, communication and environment (Majerova & Krizanova, 2015); (Nadanyiova, Kicova & Rypakova, 2015). It brings gradually transition from the local and regional differences, therefore the **homogenized world culture** is formed.

Types of globalization

According to the American sociologist **Christopher Chase-Dunn** there are four kinds of globalization:

- general environmental constraints – a threat to the ecological system and to the existing environmental threats of a global nature,
- cultural globalization – the massive spread of pro-western oriented values,
- globalization in communication and in the new era of information technology – which is associated with the time-space compression, economic and ideological exchange and new networks,
- political globalization – the institutionalization of international political structures.

Globalization is a challenge that is driving today's information society and influences our lives in everyday contexts. „*For someone is globalization about what we must do when we want to be happy, for others is the cause of our unhappiness. For all of them is the irrevocable fate of the world, irreversible during events and at the same time process that affects everyone equally and in the same way.*” (Bauman, 1999)

The causes of globalization, according to U. Beck could be summarized as following:

- international business and global expansion,
- progress in information and communication techniques and technology,
- the constant increasing power of international concerns,
- demands for human rights and the principles of democracy,
- patterns in mass and industrial culture,
- development of international politics,
- work has become cheaper and capital has become more expensive,
- the fight against global poverty,
- environmental threats,
- transcultural and transreligion phenomenon.

Globalization has become one of the frequent modern themes. It is reflected in the number of literature that is growing in dynamic time.

1.1 Positive and negative views on globalization and current challenges

„If globalization has been successful, it must be successful for the poor as well as for the rich. It must bring rights as well as wealth. It must deliver social justice and equality as well as economic prosperity and better communication.“⁴⁷

The positive side of globalization, we could be summarized as following:

- overcome limitations of time and space,
- support of labour mobility,
- creative business clusters,
- implementation of transnational projects,
- global capital appreciation,
- create a global competitive environment,
- technology development,
- support of regional economic integration,
- new position of international institutions,
- explore different cultures and inspiration to creativity.

Globalization is considered as a challenge in transnational corporation and in a strong economy. It has a direct or indirect success on the others. The positive trends of globalization have found application due to concomitant and extensive rebuilding national economies.

Globalization brings positive and negative tendencies that can act as a threat to society.

These weaknesses include:

- increasing unbalanced economic and social development,
- social polarization (increase the number of rich and poor classes, disappearing middle class),
- restructuring of the labour market,
- growing number of unemployed,
- gradually increasing of international criminality, terrorism and violence,
- significant gap and inequity in the distribution of wealth of the world,
- global warming,
- degradation and pollution of environment.

In case that manifestation of globalization has grown, the more we can observe also resistance against it and increasing the number of critics. Dr. D.C. Korten said that: *„unregulated global economy where dominate corporations which prefer money as a single value, is basically unstable ... and in many ways it destroys humanity.“*

1.2 Globalisation and values in the information society

We have been living in a time where we are witnesses that the needs of our society increased the value of the information when we compared it with previous centuries. Globalization has greatly contributed to shaping the **global information society**. We can consider that the emerging information society is global.

⁴⁷ The statement from ex-Secretary-General of the United Nations

According to the historical point of view, the values have been changed (Majercikova & Bartosova, 2012). It is important to identify common and core values (Salaga, 2015). It is a variable in which we prefer something instead of something else. Its importance can be expressed by the price that we are willing to pay. A. Schopenhauer (1988) says that: „*each value is evaluate of things in comparison to some other thing, i.e. comparative term, thus something relative and this relativity creates the essence of the concept of value.*“ The old values are supplemented by new ones that reflect developments in society. We provide a brief overview:

- TQM (Total Quality Management) management and global strategic thinking which support the principle of continuous improvement Kaizen (De Aquino & De Melo, 2016),
- determine the direction of globalization and focus on the knowledge and communicate with the world,
- produce what the customer is interested in,
- trying to reduce the length of distribution channels,
- discuss and organize the processing and marketing activities,
- compare your business with global companies similar focus,
- promote innovative way of thinking own employees,
- consider a knowledge of workers and information as an intangible asset of the business,
- ensure the production of a global character,
- global management thinking.

Economic and social life have increased gradually, it depends on information services based on computer technology (Buno & Hraskova, 2015). The important part has become their mere protection and ensures the security of information in cyberspace. We are witnesses that: „*A new technologies and its focus on information is as a totem of today's time where places demand on high adaptability of human rights.*“ (Kondrla, 2002).

1.3 The value for customer in an era of globalization

According to the character of globalization which allows unrestricted flow of products and services across national borders, customers have a tendency to develop new and challenging requirements. On the side of offer, there is effort to achieve comprehensive benefits, to adapt the specific needs (customization) and reaching faster delivery as well as an effort for innovation, adaptability and ensure reliability.

Globalization contributes significantly to the formation of the concept of management thinking, creating new challenges and opportunities that are affected by the massive support of information and communication technologies. Their effort is to gain fast and quality fulfilment of customer's needs worldwide. These new needs have been evolving constantly (Ponisciakova, 2015).

The value is not a new term, it developed gradually and naturally passage of time has also increased its importance. Nowadays customers have expectations which are more challenging and they have become more comfortable. It is important to clarify what exactly we really mean by **customer value** (Gogolova & Ivankova, 2015), (Salaga, Berzakova & Majercak, 2015). It is a quality of meeting individual and specific requirements exactly. In practice it means to offer maximum benefit for an acceptable bid. The requirements, needs and values of both parties (customer – enterprise) are satisfied. It is an achievement of an ideal state.

Customer value increases when:

- benefits grow faster than the total costs,
- increasing benefits and total costs do not change,
- benefits increase and total cost decrease,
- benefits do not change and total costs decrease,
- benefits decrease more slowly than the decreasing of the total cost. (Vlček, 2002)

New products must have better features which can provide greater value for the specific target audience. It becomes a more competitive offer in market conditions (Tasci, 2016). We can conclude that the increasing demands of today's customers, strong competition and innovation will occur as opportunities to choose a specific product for this purpose. Current market trends do not show that consumers want to give up their requirements. Conversely, companies must keep up with this fact and ensure or possibly increase the value of the offered products or services.

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THE EU ECONOMY AND GLOBALIZATION – HOW TO CHANGE THE DESIGN OF MACROECONOMIC POLICIES TO MAINTAIN THE SOCIAL MARKET ECONOMY MODEL?

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Abstract. The main purpose of this article is to answer two questions. The first question is, how to actually specify what the aim of the social market economy, which was newly added to the Lisbon Treaty as a part of Article 3, means. As a basis, we turn to the original definitions of the term social market economy, which were established in the 50s of the 20th century. Consequently, we analyze, how the definitions evolved up to the present. In the globalized environment, this concept exhibits new expanding features. Based on this broadened definition we can then attempt to answer the second question – what policy measures are suitable for sustaining the social market economy model. Completing the institutional architecture of the EU or the Eurozone would restore the ability of the fiscal policy in all countries to act anti-cyclically, and that at the time of economic downturn to dampen fluctuations in employment and economic activity, which in the current institutional arrangement is made difficult precisely because of the centralization of the monetary policy and the lack of its usual supplements at a European level. The conclusions were achieved by using the latest sources of economic policy theory and optimum currency area theory in particular.

Keywords: European Union, Lisbon Treaty, social market economy, international public goods, institutional reforms

JEL Classification: E02, E61, B25

1. Introduction

Since December 2009 when the Lisbon Treaty on European Union (TEU) went into force, its Article 3, paragraph. 3 commits the European Union to strive for a highly competitive social market economy. In this article of the TEU, the contract follows a number of other provisions which result in a wave of social expectations regarding the future of the European integration. Besides these proclamations, whose legal weight, it is possible to speculate, there were also specific provisions included into the contractual basis of the European integration. At first, it was the so called horizontal social clause of Article 9 of the Treaty on the Functioning of the European Union (TFEU). Equal importance was attached to a legally binding Charter of Fundamental Rights of the EU which became part of the primary law of the integration and that both in its Chapter IV, entitled Solidarity

While the EU and the Lisbon Treaty have a constitutionally principled basis leading toward a social market economy, this does not mean that this objective has been clearly defined in the

primary law and that the EU would be vested with sufficient powers to achieve such objectives. After all, the very notion of a highly competitive social market economy is only given in the cited article 3, paragraph. 3, in the TEU: in TFEU it does not occur anymore, and there is nothing to be found in the EU primary law directly defining this term of highly competitive social market economy, or which would link specific objectives and competences of the EU to it.

Also for this reason some opinions found in literature state that the objective of a social market economy is not directing the EU to any specific model, certain common policies or the targeted budget expenditure, but it is a balancing clause (Costamagna, 2012). It is an "order to optimize" in the sense of continuous benchmarking market (growth, competitiveness, price stability) and social unilateral viewpoints (welfare, cohesion, social benefits) without being biased either way. On the other hand, Article. 3. 3 evoked a certain intellectual discourse in those circles, for which the social market economy is the greatest invention in the history of economic policy and constantly updated list of measures and criteria for ensuring a harmonious balance between economic performance and social welfare. Here, then, inevitably the question arises whether the model may become a federal form and therefore be at least partially developed by legal and political measures adopted at the EU level.

What are the features of such a system? The ambition of this paper is to present the original definition of the concept of social market economy as well as its possible modifications and extensions to the contemporary globalized economy. Using this defined concept, it seeks to define the possibilities and limits for the implementation of the objectives of the social market economy in the EU.

2. Ambiguity in the current theoretical frame concept

The answer to the question of what to understand under the concept of social market economy, is not clear. There are several reasons for it.

The first reason for the ambiguity of the current interpretation of the concept of social market economy in the economic theory is that current economics with this methodology may not have the ambition to give answers to practical questions of economic policy and certainly not when they are *a priori* associated with value preferences. (We cannot resist the temptation to recall that Alan Blinder very sensitively deals with the issues of separation of determining the optimal value priorities in the society by politicians and their subsequent achievement in the form of "policy design" by educated technocrats as presented in his famous article in Foreign Affairs (Blinder, 1997).

The second reason is that the concept of social market economy itself was born (in the work of Alfred Müller-Armack) as a part, a complement or an extension of the German concept of ordoliberalism and as Krabec - (Krabec, 2003), (Krabec, 2004) mentions, in English and American literature (which is dominated by economic theory), this school is usually overlooked.

Some authors rank the whole concept of ordoliberalism among predecessors to constitutional economics. Better than as an independent part of economic theory, ordoliberalism, containing also the concept of social market economy can be better called "the theory of economic policy", as defined by (Benassy-Quere, Coeuré, Jacquet, & Pisani-Ferry, 2010).

Current leaders and promoters of the concept of social market economy among German economists as Nils Goldschmidt, Bodo Herzog and Christian Glossner also point out that the

scope of the concept of the social market economy is broad and represents a rather peculiar normative concept of economic policy. Glossner (Glossner & Gregosz, 2010) literally states: „*However, the Social Market Economy as an extension of neo-liberal thought was deliberately not a defined economic order but an adjustable holistic conception pursuing a complete humanistic societal order as a synthesis of seemingly conflicting objectives, namely economic freedom and social security.*“

3. Trying to define the characteristics of the social market economy

Because of the reasons mentioned above for the ambiguity of the term "social market economy", we chose to define the term in the following ways. For the original meaning we are returning to the members and associates of the Freiburg school and we try to notice also how the current generation of German ordoliberals is interpreting the term. At this school of economic thinking, its integration of economics and law is interesting as well as the fact that it is not developing in isolation, but rather responds to the development of economic theory including the Anglo-Saxon environment and is not against the specific parts of economic theory but rather integrates and uses it as its own analytical tools. The proof of this concept is not only notorious by emphasizing the competition and monetary stability as the basic pillars of the order, but e.g. also the references to the specific parts of the international economics. Herzog (in Glossner & Gregosz, 2010), for example, works with the Heckscher-Ohlin and Stolper-Samuelson theorem as a basis for discussion of the principles of ordoliberal order in the area of globalization. We therefore consider it legitimate to refer in the following text to the teleological oriented parts of economic theory, such as the optimum currency area theory (hereinafter OCA) while we try to find normatively oriented recommendations for economic policy by the established experts in the field of theoretical economics.

The original meaning of the term social market economy in the works by the ordoliberals can be characterized by the fact that ordoliberalism itself builds on the so-called "Policy Rules" (Ordnungspolitik), where the role of the state is perceived as irreplaceable for the creation of the environment and to guarantee the quality of formal institutions (constitution, laws). In the Eucken concept (Eucken, 2004) the basic principle of the economic order is to establish a functional price system. Given the interdependence of the social and economic order, the existence of a functioning price system requires the fulfillment of six basic principles (see figure 1 below for detail).

These basic principles then correspond to the requirements for regulatory policy in addressing market failures and corrective (social) policies restricting inequalities arising from the market operation of correcting for the degree of inequality and strengthening social cohesion. The first group of permissible regulatory intervention in this concept is the control monopolies, regulation of income through progressive taxation, regulation and control of externalities, too high intensity of competition (e.g. the labor markets). Social policy should stay essentially beside a functioning price system and competition and correct distribution in accordance with the principles of solidarity and subsidiarity. For the purpose of redistribution, measures such as progressive taxation and social policies associated with various measures in favor of the less well-off society groups (child allowances, rent subsidies, social housing etc.) can serve. Along with the "only intervene where the problem arose" (subsidiarity) and only in the cases where people are unable to take care of themselves.

The state's role in this concept is to set the basic rules of the economic order - as aptly says Goldschmidt (2008) – the second role of the government, is the role of referee in the field, which is responsible for compliance with the rules of the game.

In contemporary theory - as we have already indicated above - the idea of a social market economy is usually posed by their original instrumental ideals, including the correction of too high levels of inequality arising from the principle of market partitioning and possibly suppressing the phenomenon of reproducing social exclusion and it is discussed in relation to the challenges of globalization and European economic integration. Here one can find a wide range of inspirations that theory has repeatedly discussed: the issue of the so-called international public goods.

For public goods are considered as established or agreed rules (in this case, for example, international agreements), common institutions and common currency.⁴⁸ Blinder (2006) and Blinder & Krueger (2013) point to new challenges in redefining the role of the state (i.e. the public sector anywhere - European, national and regional level) due to the increasing pressures of globalization transferring competition from the enterprise level to the level of departments and individuals.

Very interesting view offers also research among European citizens (Boeri et al., 2001).

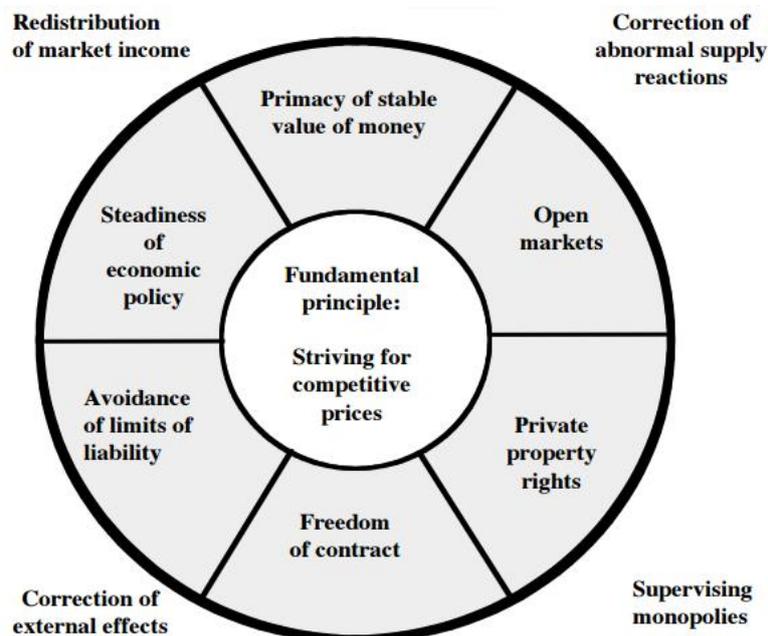
A number of authors of the OCA theory postulate the need for greater symmetry between monetary integration and of fiscal and social centralization (which would include both a European tax and European implicit transfers) policy and supplement it by providing international public goods and correcting the negative externalities at a supranational level. Among the negative externalities at this level, usually a question of excessive inequalities and issues related to environmental issues involved.

Herzog (in Glossner & Gregosz, 2010) literally states that "... the current challenges and problems stem from the fact that income inequality and financial stability have become the (nowadays) more problems of supranational than domestic economic policy."

The contemporary definition of the social market economy, therefore, can be characterized as Goldschmidt & Wohlgemuth did (2008) in the following diagram.

⁴⁸ Eichengreen and Wyplosz (Baldwin & Giavazzi, 2015) cite Buchanan (1991), who postulates that even in the provision of public goods and the creation of supranational institutions, the argument of economy of scale plays a part and consequently, it is a valid reason to create such powers at the supranational level, or move it there.

Figure 1: Social market economy



Source: Goldschmidt & Wohlgemuth (2008)

4. The causes of erosion of the social model and recommendations of economic theory to its sustainability

The long-term effort of European politicians to create an economic space that would be of the size (and thus indirectly also economies of scale associated with greater microeconomic efficiency of allocation) comparable with other global players such as the US or China, brought his contemporary result in the existence of the EU and Eurozone. In the economic community, there is a relatively broad consensus (see eg. Baldwin & Giavazzi, 2016) that the main immediate cause of forcing the breakdown of the welfare state through various fiscal austerity measures and pressure on structural reforms is not the globalization pressure going from outside the EU but the asymmetric path of integration which Europe has taken. For a design failure - in accordance with the broadly defined optimum currency area – it is described the fact that the European Monetary Union lacks the adequate mechanisms that could mitigate the effects of diverging economic developments or actual divergence by asymmetric economic shocks. Divergent economic growth leads the EU, in the current institutional settings, often to large imbalances leading to soaring external deficits or surpluses in various parts of the balance of payments of the Member States.

If it must be the aforementioned imbalance eliminated or alleviated (and it becomes obvious that they must be eliminated) then a mechanism that remains by the current state of asymmetric integration – i.e. internal devaluation - entails high costs sacrificing growth, employment and also provides social and political shocks.

Countries that have their own currency and are exposed to these imbalances, can simply devalue or revalue their currencies. In contrast, in a monetary union, member countries are suffering from external deficits, intensifying forced cuts in public spending that will inevitably

lead - directly or indirectly - to a rise in unemployment. This problem has been recognized by the founders of the optimum currency area in the 1960s.

The standard recommendation, which is then derived from the traditional optimum currency area, becomes the implementation of structural reforms, i.e. changes that increase flexibility (price and space) of labor and product markets. A greater downward flexibility in prices and wages then, should bring an easier adaptation (internal devaluation) of the economy without large losses in employment and output. In terms of potential for restoring the macroeconomic balance in member countries, these recipes in favor of more flexibility are of no dispute. But this is not the case from the perspective of social consequences any longer. Wage cuts, reductions in unemployment benefits, lower minimum wages, easier job cuts for employers and other implications of increased flexibility of labor markets in the country that needs an internal devaluation, could have serious political consequences. This creates a backlash to people adversely affected by the structural reforms and their inclination toward parties that promise other ways of addressing the situation, including the departure from the euro zone. So, from a purely economic point of view, greater flexibility of markets and in particular the labor market provides a sound solution. From a broader societal perspective, this unilateral solution becomes a problem.

The above described situation is the reason why the later, supplemented versions of optimum currency area include in the solution to the problem, besides structural reforms, also fiscal transfers and divide assessment criteria for the optimality of the currency area to the economic (flexibility of markets, synchronization of business cycle, similar industry structure, intensive trade relations) and political criteria, among which, it was presented in the first place, that countries were able to compensate a part of asymmetric shocks through fiscal transfers (redistribution).

The latter corrective and redistributive mechanism is missing in the Eurozone's contemporary design.

Besides that - gradually since the 1990s – the Euroarea countries have introduced a system of rules which has the ambition to undergo more thorough the implementation of national fiscal policies of central control (by the Commission and the Council). There is a growing risk that a government will call the bluff and openly defy the Eurozone's fiscal rules" as states Pisani-Ferry (in Baldwin & Giavazzi, 2016). Because the perceived level of legitimacy of these rules is low, doubts remain about the legitimacy of the relevant sanctions and growing danger that governments will resist fulfilling the spirit of the Eurozone fiscal rules. The more complicated is the surveillance system, the easier it is to bypass it.

It is not entirely clarified what is the role of the ECB in the event of a crisis in the financial markets and whether it is permissible to act as a so-called „lender of last resort“.⁴⁹

The removal of institutional defects that would reduce the risk of crises and expectations and thus tend to excess cyclicity and temperance of fiscal policies in the EU or in the Euro area - the aforementioned reasons – is seen in these interrelated areas:

- Development of tools (funds) of fiscal policy at the Euro area level in conjunction with mounting fiscal discipline policies at a national level

⁴⁹ Art. 123 paragraph. 1 TFEU prohibits the ECB to give governments and other public authorities of the Member States the possibility to overdraw the bank account, providing them with any other type of credit or directly purchased their debt instruments.

- System shared hedging against shocks at a European level
- Cutting the vicious circle between undercapitalized European banks and their high rate of holdings of government debt (doom loop)
- Completion of the banking union
- Restructuring (decrease) the public debt level

In each of the aforementioned areas, institutions and instruments in many different nuances can be designed. Many proposals in detail are available for example in Baldwin & Giavazzi (Baldwin & Giavazzi 2016), De Grauwe (De Grauwe 2015, 2016) or Zeitlin (Zeitlin 2016).

In the first area, a range of agendas is proposed. The closest to the idea of federal funding associated with the pan-European solidarity is the very frequently discussed idea of European unemployment insurance. It may not even be meant in the range of a pan-European fund, but for example, the system of pan-European and national funds. See in detail for example Beblavý (Beblavý, Gros, & Maselli, 2015) and many others. The latter step can be seen not only as a step toward fiscal union, but also as a symbol of pan-European solidarity.

In the second area, often the need for expanding the mandate of the ECB is discussed as to be able to guarantee the role of insurance against panic on financial markets („backstop financial markets“).⁵⁰ Eichengreen and Wyplosz (in Baldwin & Giavazzi, 2016) argue, for example, in this direction.. One of the proposed options is the emergence of such an entity from the existing ESM, but there are more possibilities to consider, see among others (Bofinger, 2016).

The third area of institutional reform requires two sets of measures and is connected with the fifth area. The first group is limiting banks' credit exposures to the States. Therefore - the second group of parallel measures in this area - should be some form of a common European restructuring (reduction, partial write-off) of public debt. There are many specific and relatively detailed proposals already available, see among others the PADRE Plan by Paris and Wyplosz (2014) or the broad variety of proposals by CEPR included at: A New Start for the Eurozone: Dealing with Debt (Corsetti et al., 2015), or Miller & Thomas (2013), or Mody, (2013) in Oxford Review of Economic Policy.

Regarding the banking union, there is a requirement for system stability which the supervisory and resolution mechanisms should operate quickly and smoothly..

5. Conclusion

This article belongs to the normative theory of economic policy. Its goal was to answer the following questions: How to interpret the concept of social market economy in the current conditions of globalization and European integration and what changes in the institutional framework of the EU are required to perform and preserve the principle of a social market economy, which is normatively newly declared in the Lisbon Treaty.

⁵⁰ Which clearly demonstrates the need for progress and decisions of the EU Court of Justice (ECJ) on the legality of so-called "Direct currency transactions" (OMT), the ECB announced precisely because of the stabilization of financial markets in 2012. The ECJ in its decision of June 2015 (C-62 / Gauweiler 14) stated that OMT are under certain conditions, breach of the prohibition of direct financing of Member States by the ECB pursuant to Art. 123 TFEU, but rather fulfilling the objective of maintaining monetary stability, the ECB explicitly confers TFEU.

We argue that if the aim of the EU is to succeed in the global competition with such players such as the US or China, integration is needed. The basic argument for integration is in fact a greater microeconomic efficiency of the allocation and the existence of economies of scale, inter alia, given by the size of the common market. The common currency contributes to the greater microeconomic efficiency allocation as well.

However, because integration was carried out asymmetrically, it has led to suboptimal structure of the hierarchs of institutions and powers. Together with the information asymmetry, this hierarchy has led to an increased pro-cyclicality of development in many member countries. During the financial and debt crisis there is a need for moderation and in recession even for pro-cyclical fiscal policy, enforced in some Member States, inter alia, its little functionality being, beyond the existing institutional arrangements, one of the decisive factors leading to the breakdown of the welfare state. The concept of social market economy is always built on the principles of a market economy with a strong protection of price stability, competition, freedom of contract, liability for debt and needed stability of the institutions and rules (economic system). Moreover, a public authority (the State) becomes the one who has to care about the order, supplement or correct the markets where they are failing, whether for externalities or the less socially accepted and coherence disrupting existence of poverty. Contemporary leaders of ordoliberalism, which is the solid foundation of the concept of social market economy, admit that in the context of the role of public authorities in providing and regulating public goods as part of their order, the so-called international public goods, counting among others a common currency international agreements and institutions, have necessarily a growing role of importance.

Therefore we conclude that for the EU it is necessary to carry out institutional reforms as outlined above in order to secure the efficient functioning of markets on the one hand and complementary social rights representing the concept of social market economy on the other hand.

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FINANCIAL MODELS OF TAXATION SYSTEMS: IDENTIFICATION APPROACHES

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Abstract. An important and significant element of the financial policy is the taxation policy, which projects its essential characteristics on the taxation system, and the latter one in its turn forms the environment for business activities and determines the comfort level of the business climate. By shifting the concentration of tax authorities to its regions, the countries with a large number of constituent entities can form the competitiveness concept of their taxation systems, thereby creating a race for taxpayers as a source of tax revenues. Within the current realities, the world practice allows to distinguish four basic models of taxation systems: the Anglo-Saxon system, the Euro-continental system, the Latin-American system, and the mixed system. Having some knowledge about the principles of each model, the authors decided to form an identification matrix for a taxation system model, highlighting the general parameters for each model, dividing them into two categories: quantitative and qualitative. Specific values and characteristics were determined (obtained) by analyzing taxation systems of different countries. To prove the validity of the proposed matrix, it was decided to test it when identifying the taxation system model of the Russian Federation on the basis of statistical data on the amount of income taxes and fees in the consolidated budget of the Russian Federation. Taking into account the specific characteristics of the Russian Federation, it was decided to use the identification matrix for the taxation system of the Krasnoyarsk Region - one of the largest regions of the Russian Federation. Interpretation of the analyzed data in terms of meeting the criteria of the identification matrix presented in the article confirms that the taxation system of the Krasnoyarsk Region corresponds to the Euro-continental model. Understanding the concept of the taxation system model may be of great interest when establishing the financial policy of any country on the basis of its strategic and tactical goals and objectives. With regard to economic entities, such knowledge will be important when choosing the region for business activities from the perspective of its economic stability and security.

Keywords: financial policy, taxation policy

JEL Classification: G 38, H21, H30

1. Taxation system: essential characteristics

The result of the state taxation policy is the development of the state taxation system, which combines existing taxation terms and conditions established in the state.

Nowadays, there are several definitions of the taxation system. For example, according to Aliyev B.Kh., Musaev Kh.M., Abdulgalimov A.M., "the taxation system in its general meaning

is a system of social relations developing in the process of establishing, calculating and paying taxes and fees. The elements of the taxation system include not only the combination of taxes and fees collected within the territory of the country, but also all participants of taxation legal relations, principles of the organization and functioning of the taxation system, as well as the rates and rules of taxation regulations" (Aliev, 2014).

The publications of Pinskaya M.R. include the following definitions: "the taxation system is very complex, evolving and constantly changing social formation. Since being closely associated with the development of the state and its economy, it is the main tool of financial assets redistribution" or "the taxation system is the organized on certain principles system of social relations between the state (represented by public authorities, which are to ensure compliance with the legislation on taxes and fees) and its citizens (organizations and individuals) regarding the establishment and collection of taxes" (Pinskaya, 2009). In the papers edited by Mayburov I.A.: "The taxation system is the aggregate unity of interrelated and interdependent elements, which is based on certain principles: legislation on taxes and fees, combination of taxes and fees, the payers of taxes and fees, the tax administrations" (Mayburov, 2015).

All the definitions mentioned above to the greater extent reflect the approach to the broad interpretation of the term "taxation system", but within the frameworks of this article, we have some different objectives that contribute to the need for its concretization in relation to today's realities. From this perspective, the term "*taxation system*" will be interpreted as the combination of taxes, duties, fees and other payments collected from individuals and legal entities in accordance with the current legislation in the field of taxation, as well as the principles and methods of their establishment, modification, cancellation, payment, and some measures taken to ensure their collection, tax control and liability for violation of tax regulations.

The taxation systems of different countries, and Russia is not an exception, are formed under different degrees of influence of various conditions and factors: political, economic, social, religious, etc. These influences lead to the situation that the taxation systems of different countries have significant differences and have their own set of essential characteristics.

1.1. Basic taxation system models

Within the current realities, the world practice allows to distinguish four basic models of taxation systems: the Anglo-Saxon system, the Euro-continental system, the Latin-American system, and the Mixed system.

The basic parameters for taxation systems' classification by different models is a set of corresponding characteristics, both quantitative and qualitative, namely:

- *The Anglo-Saxon system*, characterized by a high total level of tax burden, priority taxation of individuals and their income with direct taxes and insurance contributions, with low share of indirect taxes. This model is used in the countries with very stable economy, low level of inflation, stable currency exchange rate, a high level of citizens' incomes, etc. This taxation system model is used, for example, in the following countries: Australia, the UK and others;
- *The Euro-continental system*, characterized by the socially-oriented policy with a large number of transfer payments and a high level of tax burden on the income of both legal entities and individuals, with a high level of social insurance contributions and a significant share of indirect taxes - from 22% of total budget revenues and more. At the

present moment, this model is used in Germany, Sweden, etc.;

- *The Latin-American system*, characterized by its focus on indirect taxation – from 40% and more in the total amount of tax revenues and a significant share of taxes on the incomes of citizens in the total amount of direct taxes. The overall tax burden is generally at the medium level. This system is used in the countries with a high inflation level, as it allows to protect the budget revenues against the negative impact of processes related to the depreciation of the currency. This model is typical for the majority of countries in South America: Chile, Peru, etc.;
- *The Mixed system model*, characterized by almost equal share ratio of direct and indirect taxes in the total amount of tax revenues and a significant share of insurance contributions in the total amount of direct taxes. This model allows shifting of the tax burden toward individuals and organizations. It is characterized by a medium and a lower-than-medium level of the tax burden with an upward tendency, especially during the economic crises. This model is used in Italy, Spain and other countries.

1.2 Identification of taxation systems

Having some knowledge about the principles of each model, the authors decided to form an identification matrix for a taxation system model, highlighting the general parameters for each model, dividing them into two categories: quantitative and qualitative.

Specific values and characteristics were determined (obtained) by analyzing taxation systems of different countries. As the result, the matrix presented in Table 1 has been developed.

Table 1: Identification matrix for a taxation system model

Parameters		Global basic models of taxation systems			
		Anglo-Saxon	Euro-continental	Latin-American	Mixed
Quantitative	Income share of direct taxes	More than 80 %	Less than 80 %	Mehee 60 %	About 50 %
	Income share of indirect taxes	Less than 20 %	More than 20 %	More than 40 %	About 50 %
Qualitative	Tax burden level	High	High or medium	Medium or below the medium level	Medium
	Tax burden shifting	To individuals	To legal entities and individuals	Different options are possible	Different options are possible at the different development stages
	Prevailing payments share	Taxes on citizens income and social insurance contributions	Social insurance contributions	Indirect taxes and taxes on citizens income	Substantial share of insurance contributions in the total amount of direct taxes

Source: Koneva, 2016

2. Assessment of the identification technique for taxation system models (using the example of the Russian Federation)

To prove the validity of the proposed matrix, it was decided to test it when identifying the taxation system model of the Russian Federation on the basis of the statistical data on the amount of income taxes and fees in the consolidated budget of the Russian Federation, presented at the official website of the Ministry of Finance of the Russian Federation. The results are summarized in Table 2.

Table 2: Revenues from taxes, fees and other mandatory payments to the consolidated budget of the Russian Federation for the period of 2011-2013

Tax (fee)	2013			2014		
	bln RUB	ratio, %		bln RUB	ratio, %	
		without insurance contributions	with insurance contributions		without insurance contributions	with insurance contributions
VAT	3 539,44	21,0	16,6	3 939,66	20,9	16,7
Excise taxes	952,47	5,6	4,5	1 000,01	5,3	4,2
Customs duties	4057,92	24,0	19,0	4637,63	24,6	19,7
Total indirect taxes	8 549,83	50,6	40,1	9 577,3	50,9	40,6
Tax on the income of organizations	2 071,89	12,3	9,7	2 374,66	12,6	10,1
PIT	2 499,05	14,8	11,7	2 700,72	14,3	11,5
Taxes on property	900,73	5,3	4,2	957,49	5,1	4,1
Mineral production taxes	2 575,78	15,3	12,1	2 904,85	15,4	12,3
Consolidated income taxes	292,80	1,7	1,4	315,05	1,7	1,3
Total direct taxes	8 340,25	49,4	x	9 252,77	49,1	x
Total budget revenues	16 890,08	100,0	x	18 830,07	100,0	x
Insurance contributions to non-budgetary funds	4 436,19	x	20,8	4 755,08	x	20,2
Total direct taxes taking into account insurance contributions	12 776,44	x	59,9	14 007,85	x	59,4
Total budget revenues taking into account insurance contributions	21 326,27	x	100,0	23 585,15	x	100,0
For reference only: share of insurance contributions in the total amount of direct taxes and fees			34,7	x	x	33,9

Source: Official website of the Ministry of Finance of the Russian Federation: http://info.minfin.ru/kons_doh.php

As part of the identification process, the aim was set to get an idea of the relation between direct and indirect taxes, their structure, both within the group and as a part of the total income, in two different ways: taking into account insurance contributions to non-budgetary funds and without them. This can be explained by the fact that in all countries the insurance contributions to non-budgetary funds usually belong to the group of tax payments and are taken into account when calculating the tax burden, but in the Russian Federation since the certain moment, they don't have the status of tax payment, because they are not regulated by the Tax Code of the Russian Federation.

If we interpret the data presented in Table 2 regarding the compliance with the identification matrix criteria (Table 1), it can be affirmed that the taxation system of the Russian Federation corresponds to the Mixed model. This suggestion is confirmed by almost equal share ratio of direct and indirect taxes and the fact that the share of insurance contributions in the total amount of direct taxes is greater than 1/3. The percentage ratio of this value was 34.7% in 2013 and 33.9% in 2014. Moreover, it should be noted that there is a trend toward the tax burden shifting to the taxpayers – individuals. In order to assess the level of the tax burden, the information provided

by widely-recognized rating agencies, and official statistics data on the tax burden of more than 50 countries have been used. The results of the analysis led to the conclusion that the tax burden in the Russian Federation corresponds to the medium level or slightly below the medium level if comparing to the overall inter-country situation.

Taking into account the specific characteristics of the Russian Federation, such as 85 constituent entities within the country with 190 nationalities of different religions; a vast territory that includes four climatic zones: from the arctic zone to the subtropical one; high concentration of natural deposits in some areas, etc., it was decided to use the identification matrix for the taxation system of the Krasnoyarsk Region - one of the largest regions of the Russian Federation. (Shavshukov & Zhuravleva, 2015). The need of such identification was driven by the desire to check the author's hypothesis about the possible use of other taxation system models at the level of constituent entities that differ from the complex model being the national one.

For this purpose, the available information provided by the Directorate of the Federal Tax service of the Krasnoyarsk Region on tax revenues and other similar payments to the budget system of the Russian Federation was summarized in advance in Table 3.

Interpretation of the data presented in Table 3, regarding the compliance with the identification matrix criteria (Table 1), allows to suggest that the taxation system of the Krasnoyarsk Region corresponds to the Euro-continental model.

Table 3: Analysis of revenues from taxes, fees and other mandatory payments to the budget system of the Russian Federation (according to the data provided by the Directorate of the Federal Tax service of the Krasnoyarsk Region)

Tax	2011		2012		2013		2014	
	mln RUB	Ratio, %						
Taxes on goods (works, services) produced on the territory of the Russian Federation	9 828,4	4,9	21 319,5	7,9	28 989,5	9,9	45 874,8	14,5
Excise taxes on excisable goods produced on the territory of the RF	14 868,5	7,3	18 887,4	7,0	21 952,5	7,5	12 384,1	3,9
Total indirect taxes	24 696,9	12,2	40 206,9	14,9	50 942,0	17,4	58 258,9	18,5
Tax on the income of organizations	82 058,9	40,5	60 907,6	22,7	54 388,5	18,6	56 171,3	17,8
PIT	44 810,4	22,1	49 462,1	18,4	54 017,0	18,43	56 336,9	17,9
Taxes, fees, and regular payments for the use of natural resources	32 846,9	16,2	96 316,3	35,8	107 234,2	36,6	118 439,4	37,6
Taxes on property	13 242,4	6,5	15 650,6	5,8	19 710,2	6,7	18 647,3	5,9
Others	4 948,1	2,4	6 242,7	2,3	6 772,4	2,3	7 465,9	2,4
Total direct taxes	177 906,7	87,8	228 579,3	85,0	242 122,3	82,6	257 060,8	81,5
Total budget revenues	202 603,6	100	268 786,2	100	293 064,3	100	315 319,7	100

Source: Local authority of the Federal State Statistics Service of the Krasnoyarsk Region, as on the date of 18.02.2015.

When interpreting the data presented in Table 3, the authors kept in mind the following: when assessing the composition and structure of indirect taxes, the customs duties have not

been taken into account, of direct taxes - social contributions, and therefore they drew conclusion based on the observed trends, taking into account the differences mentioned.

Thus, the taxation system of the Krasnoyarsk Region consists of the following ratio of direct and indirect taxes: less than 80% and more than 20%. To avoid misunderstanding, we should emphasize once more that such conclusion is based on the trends shown in Table 3, but taking into account the fact that Table 2 reflects the broader composition of taxes and other similar payments.

The tax burden level in the Krasnoyarsk Region in general should be higher than in other regions, since a significant share of revenues come from taxes, fees, and regular payments for the use of natural resources, due to high concentration of large taxpayers in this region operating in the production industries, the development of which is related to the fact that this territory has the largest mineral deposits, while other regions can have no such deposits at all. Moreover, the tax burden on income (revenue) of legal entities and individuals almost came to the same level for the period of 2013- 2014. It is evident that if we consider the whole situation, the tax burden center will shift toward legal entities, due to the fact that they account for the mineral production tax, which is not paid by individuals according to the legislation on taxes and fees. If we consider insurance contributions to non-budgetary funds, the trend will be the same, both for the country as a whole and in different regions in particular, as these payments are regulated at the federal level and are the same, without any difference, throughout the whole country.

In addition, it is very important to consider issues related to the stability of the taxation system and the absence of any conceptual changes in the model during the short period of time. For this reason, it is necessary to take into account such parameter as the risk of shortfall in tax payments, which is calculated based on the analysis of the tax revenue plan implementation for the period of several years.

The results of such analysis, which was carried out according to the data for the Krasnoyarsk Region, are presented in Table 4.

Table 4: Lost revenue distribution in the budget system of the Krasnoyarsk Region according to the level of risk for the period of 2008- 2013

Level of risk	Group of revenues
Low (up to 10%)	The tax on the income of organizations (5.5%)
Medium (10-25%)	Taxes on goods (works, services) produced on the territory of the Russian Federation (11.8%); Revenue from the use of property in state or municipal ownership (13.8%); Other non-tax revenue (14.1%); Taxes, fees, and regular payments for the use of natural resources (16.1%); Non-repayable receipts (16.1%); Disbursements in using natural resources (17%); Administrative disbursements and levies (17%); Debt and resettlements on discontinued taxes and levies (20.7%)
High (over 25%)	The tax on the income of individuals (PIT) (35.8%); Taxes on consolidated income (38.9%); Revenue from providing paid services and state expenditure reimbursement (39%); Revenue from the sale of material and non-material assets (45.5%); Taxes on property (48.5%); State duty (67.9%); Fines, sanctions, damage reparations (68.4%)

Source: Makarova, 2015

The data presented in Table 4 reflect the low and medium levels of risk for almost all basic taxes. And the taxes, which correspond to the group with a medium level of risk, show the

estimated value that is close to the lower boundary. The exceptions are the personal income tax (PIT) and property taxes, which are characterized by a high level of risk. However, if we consider their share in the total amount of the revenues forming the budget, the share of the latter ones is insignificant. In this case, the key parameter is the high level of risk of PIT - 35.8% with the observed trend of share decrease in the whole structure of tax payments (Table 4). This trend, according to the authors, will lead to further shifting of the tax burden center toward the legal entities that should not lead to any qualitative changes in the taxation system model.

Thus, we can assume the possibility of using other models of the taxation system in other regions. From our point of view, that will explain the formation of the mixed model of the taxation system at the whole-country level. On the other hand, it allows economic entities to choose a region for their business activities. Since it is the comfort level of the business climate, which is the basis of stable economic development of any territory (Dyagel, 2013), in our opinion, the linear cooperation of the regions should be based on the concept of competitiveness of their taxation policies, thereby creating a race for taxpayers as a source of tax revenues. The validity of this conclusion is supported by the following remark of the Charles Tiebout's theory: "... in the country, whose citizens are free to move from one region to another, depending on their own needs and demands, the optimal level of taxes and local public goods can be achieved" (Tiebout, 1956). The process of the migration of the citizens to the regions with more favorable economic conditions is called by Charles Tiebout "voting with their feet".

3. Conclusion

Understanding the concept of the taxation system model may be of interest at both the macro- and meso-economic levels, when establishing the financial policy of any country on the basis of its strategic and tactical goals and objectives. With regard to economic entities (micro-level), such knowledge will be important when choosing the region for business activities from the following prospects of its economic stability and security: 1) compliance of the taxation system model used in the region with the strategy and tactics of the taxation policy of the economic entities, as part of the whole financial policy; 2) stability of the regional taxation system model.

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UPCOMING GLOBAL METHOD OF TEAM COACHING IN INCREASING EMPLOYEE MOTIVATION

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Abstract. This paper deals with the application of systemic team coaching in the selected organization. Due to prevailing influence of globalization, new methods and processes of human resource development “arrive” and are applied in local small or larger businesses. Systemic team coaching described here was aimed on helping organization find a common strategic focus and motivate members of team with a common goal. After undergoing the team coaching everyone in this team feels engaged, motivated, inspired and a part of something bigger than oneself. The following approach is based on the extensive work with the team. Walt Disney method of team coaching is one of the most popular coaching process used on the global scale. The paper discusses the improving employee motivation and human resource development in order to create highly performing team and develop winning mindsets. The results of the current study confirms that systemic team coaching is excellent tool for improving a team understanding of its own dynamics, and gives team members a knowledge of why they react to their colleagues in specific ways. Qualitative approach and subjective scales were used to measure the progress of defined goal criteria. The participants expressed significant improvements in motivation and other factors the team coaching was focused on.

Keywords: strategy, team coaching, motivation, human resource development, motivation factors

JEL Classification: J24, O15, I25

1. Benefits of team coaching

One can observe that a large number of organizations extensively call on coaches to ensure the development of individual competencies and performance. This case is for coaches who focus on developing performance of leaders, experts, managers, executives and individuals. These same organizations often almost systematically avoid calling on team coaches to develop collective interfacing competencies and performance. Within these organizations, the culture may be quite resistant to facing team issues, or may be privileging high profile personal success. Coaching is one distinct strategy that implementation scientists have emphasized as a key contributor to successful implementation (Fixsen, et al., 2009), (Greenhalgh, et. al., 2004), (Nadeem, et. al., 2013). Organizations develop more effective coaching strategies that integrate all their different coaching endeavors, including team coaching, and align them to create a sustainable coaching culture, both within the organization and its interfaces with its stakeholder, as outlined in (Hawkins, 2014). The coach will not let the couchee to fall, but do his best to move the client on to the solution (Bartlett & Ghoshal, 1995), (Hagen & Peterson, 2015). In some cases, coaches that claim to work on team coaching actually work on developing individual

performance in a collective or team setting. This is what could more correctly be called group coaching, focused on individual development in a group setting. It is not systemic coaching centered on the development of the performance of the team as an interfacing system. The equivalent in sports would be to coach a group of tennis players, knowing that the process objective is to increase each player's personal skills. Group coaching can achieve very good results, but these will not necessarily increase the systemic added value potentially gained from more performing professional interfaces. Group and team coaching are two other forms for the coaching expansion as an approach in the organization. They represent opportunities for expanding coaching capacity that is built in organizations and for the reduction of inventories (Britton, 2015). In organizational contexts, another more complex systemic field concerns "organizational coaching". This type of systemic coaching concerns the development of the added value potentially gained from improving the interfaces between a number of teams. This organizational coaching accompanying process concerns an ensemble of teams or a team of teams and the development of their performance as measured by their collective results. The object of team coaching or system coaching is surely different from the object of individual coaching, but that could lead us to hasty conclusions if one confuses a systemic approach with working with systems. In their frames of reference and in their skill set, both individual coaching, team coaching and organizational coaching are much more alike than one may first imagine, and all can very powerfully gain in effectiveness by integrating a systemic perspective and systemic coaching tools. For example, to train, develop and ultimately succeed, individual sports champions have very rarely progressed very far by themselves, on their own. In fact, truly individual successes often rest on occasional lucky opportunities, and are often very short-lived. The development of really sustainable individual performance more often rests on a much larger and systemic learning context and process. Notice indeed that champions in any individual sport are generally developed in champion contexts where they can measure up to partners who are at least as good if not better than them. Even when in competition, a winner's success often rests less on personal dynamics than on excellent interface management with the opponent as well as with the larger sports environment. Coaching for individual success must consequently also resolutely be centered on the development of performance interfacing with the individual client environment. This reality is far from the short-sighted comments that would have the coaching profession be another proof that modern society is focused on solitary, and fundamentally egotistical, competitive development based on a first philosophy of life. Whatever may think those who underline examples of apparently individual performance, most successes are the result of collective commitment and concerted action. Individual achievements are strongly supported and achieved by a large behind-the-scenes professional, personal, family and social environment which support champions. Even if they generally stay out of the spotlights. Each skill gained is use in coaching dialogues between the participants themselves, under the supervision of coaches. Intrinsic motivation is defined as the doing of an activity for its inherent satisfactions rather than for some separable consequence. When intrinsically motivated, a person is moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards (Auger & Woodman, 2016), (Ganjali & Rezaee, 2016). People can make use of this internal motivation and entrepreneurial confidence in venture planning and deriving mutual benefits for the organization and employees (Wakkee et al., 2010), (Kim, & Noh, 2016). Team intrinsic motivation as a shared motivational state within a team through which the members utilize their cognitive diversity to achieve team creativity (Wang, et. al., 2016).

2. Team coaching themes

In my opinion, the most important benefit of coaching is a systematic approach and cooperation with a client while supporting him even if later the problems encountered, coach should stand by his client and help with the implementation of the intended changes or steps. (Medland & Stern, 2009) Consequently, in organizations much like in sports, the fact that one has competitors (etymologically the word comes from “petitioning together”) permits each of the partners in a field or on a market to individually surpass themselves, while being stimulated by the others. In professional contexts, if a large number of people wish to develop their personal results, they will do better and go farther when they collaborate with their environment and peers than when they attempt to do it on their own or against others. The team coaching themes are shown in Figure 1.

Figure 1: Team coaching themes



Source: Seemann, 2016

2.1 Team leadership

This focuses on supporting leaders to lead their team more effectively. It involves the development of core leadership skills in enabling better performance, building flexibility in style, dealing effectively and productively with conflict, generating commitment, accountability and better results. Working in this area can facilitate:

1. understanding how teams are created, bond and become more collaborative,
2. greater trust, mutual accountability and effective working relationships that create efficacy and efficiency (Celoría & Hemphill, 2014),
3. team development – culture, relationships and results,
4. broad leadership skills development in supporting, developing and delivering team objectives.

Leaders play a pivotal role in either fostering or hindering creativity in the workplace (Lin, et. al., 2016), (Mainemelis, et. al., 2015), (Shalley, et. al., 2004).

2.2 Team objectives

Our experience is that many teams have a lack of true clarity about their role as a team, what they can achieve together that they cannot do apart. Our work ensures that there is a common

understanding of the team's purpose and the required objectives that enable the team to work together to achieve results.

2.3 Team strategy

This focuses on enabling the team to develop practical and purposeful action plans that map out the iterative steps needed to achieve the success they and the organization seek to achieve – with the provision of effective challenge and support to ensure mutual accountability within the team is maintained and that actions are carried through and sustained.

The recent literature preview and the coach discussions are focused on defining the areas of use coaching as a form of intervention in the organization that can facilitate organizational and individual change (Bond & Seneque, 2013).

2.4 Team relationships and dynamics

This supports individuals in understanding what is required of them to work effectively together as a team. The work focuses on ensuring those individual team members' talents and skills are recognized and harnessed and brought together to create greater overall team performance.

2.5 Roles and responsibilities

This focuses on enabling team members to gain clarity on what is required and expected of them in their role and the effective collaboration required with other team members and stakeholders, where responsibilities are shared.

Coaching on the other hand may be more effective for those with a higher level of awareness of their own role in their self-deceptive tendencies (Bachkirova, 2016).

2.6 Working as a 'top team' and the needs of the wider system

This focuses on supporting senior leadership teams to better recognize the strategic responsibilities of their role as a senior leadership team within the organization and within the wider system.

This focuses on enabling teams to understand how to work more effectively with high levels of complexity and change. Working in this area can facilitate:

- a better understanding of the impact of change and ambiguity for individuals, teams, organizations and systems (and identification of methods of managing this effectively),
- understanding the mindset, disciplines and behaviours required to create and maintain efficiency and focus when operating in highly complex environments,
- how to manage the impact of restructures in developing new team or organisational identity and purpose.

2.8 Building resilience

This focuses on supporting the team to develop 'resilience' in working under prolonged stress and pressure – and to support and lead others in doing so too.

The team coaching process and its associated questionnaire illustrate a moment in time. Two or more iterations can be used to measure progress against the identified performance

targets and demonstrate movement towards goals. The team coaching model and area, what we can influence with coaching are shown in Figure 2.

Figure 2: Team coaching model



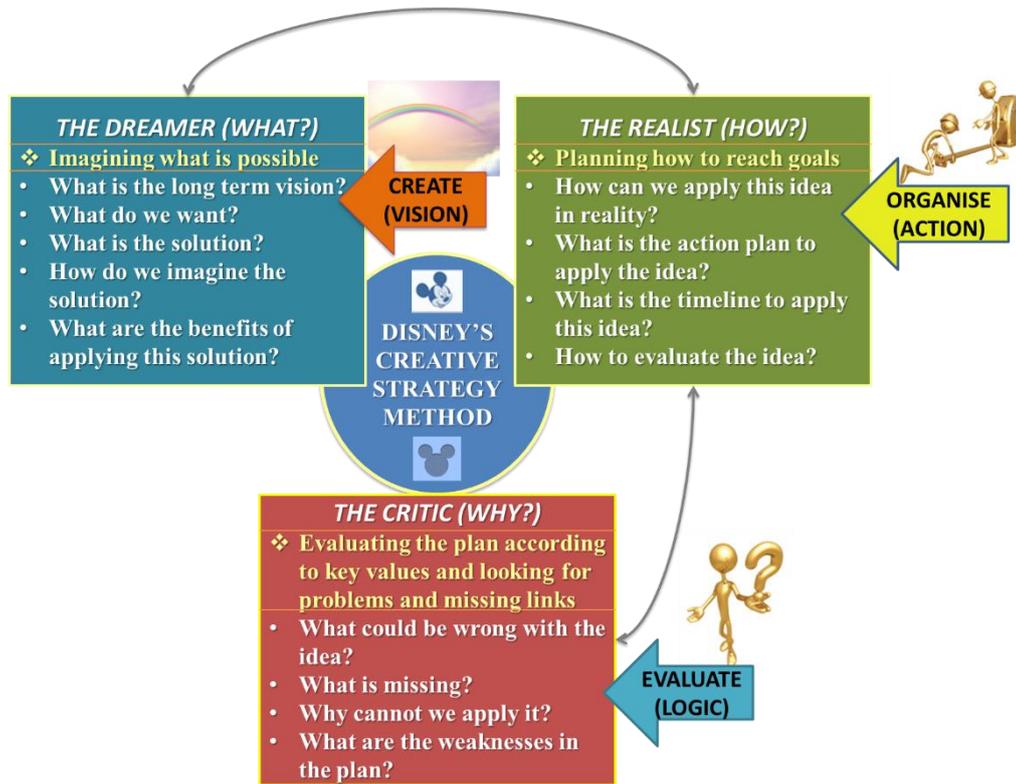
Source: Seemann, 2016

3. Case study – application of strategic team coaching

The personal vision statement then provides an artefact to be referenced and revised throughout other discoveries in the coaching process (Passarelli, 2015). The corticated professional couch use Disney’s creative strategy method for application of strategic team coaching in selected organization. This strategy is based on three main stages; the dreamer, the realist and the critic. Each stage represents a style of thinking and it should be applied in the same sequence as is shown in Figure 3.

By using this three coaching role (the dreamer, the realist and the critic), employees reach their internal visionary and realist criticism and establish a dialogue between them controlled. The coach got this effective technique for the coaching process to creating a vision of its review and its feasibility and the transparent substrate for a work in the coaching process.

Figure 3: Disney's creative strategy method



Source:

Seemann, 2016

The participant activates all three roles, in the indicated sequence. Guidelines for personal orientation for the Disney Strategy is shown in Table 1.

Table 1: Guidelines for personal orientation for the Disney Strategy

	Dreamer	Realist	Critic
Dominant question	What?	How?	Why?
Representational preference	Vision	Action	Logic
Approach	Toward	Toward	Away
Time frame	Long term	Short term	Long/Short
Time orientation	Future	Present	Past/Future
Reference	Internal - Self	External	External-others
Comparison	Match	Match	Mismatch

Source: (Seemann, 2016)

From the results in the Table 2, we can conclude that motivation has a growth trend. Motivation of the Resident Engineer and Manager is risen even after half a year of proceedings team coaching, which, as very positive. From the Table 2 we can also quantify the total change in value of the motivation for coaching from the value before coaching. The change was positive and motivation is increased by 32,5%.

Value of motivations six months after coaching has been compared to the situation at the beginning of the reporting period, on average 40% higher.

Table 2: Changes in motivation during the reporting period

	Motivation before coaching	Motivation after coaching	Motivation half years after coaching
Resident engineer	30%	70%	80%
Project engineer	30%	70%	70%
Manager (about himself)	60%	80%	90%
Manager (about employess)	40%	70%	80%

Source: (Seemann, 2016)

4. Conclusion

The creation of a high performance team depends on the team understanding and uniting on the direction and the leadership style required achieving the business goals. A team's ability to be consistent and unified has a significant impact upon business performance. The results of the current study confirm that strategic team coaching is excellent tool for improving a team's understanding of its own dynamics, and it gives team members knowledge of why they can react to their colleagues in specific ways.

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THE PROPOSAL OF INTERCULTURAL COMPETENCY MODEL OF MANAGERS IN MULTINATIONAL COMPANIES

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Abstract. Internationalization - the process of international economic integration in the world market is very strongly reflected in the current international scene which includes also the Slovak Republic. Economic interests and activities of many companies go beyond national borders and thus they become global companies. The global environment leads companies to change management system, content of manager's work, quality of working life and create and change working conditions for employees. Moreover, flexibility in management, pressure on the quality of the provision of individual activities, taking a position in a growing competitive environment are threats as well as challenges for managers, too. The key factor of their success is to know, to take into account and respect the new and important facts, such as political, economic, legislative, religious or cultural specificities in the global business space. The movement of people, ideas, innovations, products and information throughout the world necessarily requires managers with high competence - preparedness to manage challenging and often unpredictable situations, to be able to learn, collaborate and manage diversity, complexity and ambiguity and ultimately the international mobility. The aim of this paper is to present the views of experts on the management system and the requirements of managers working in an intercultural environment. The paper presents the results of research in this area and proposes competency manager model.

Keywords: competence, system of management, competency model, multinational company.

JEL Classification: F23, M15, M16, M50

1. Introduction

Hlavným dôvodom vzniku nadnárodných spoločností je získanie konkurenčnej výhody prepojením výroby a distribúcie v globálnom priestore (Isidor et al., 2011). V snahe dosiahnuť konkurenčné výhody rastúcej globálnej ekonomiky začali aj slovenskí podnikatelia po transformácii hospodárstva využívať rôzne formy vstupu do nadnárodných spoločností. Pôsobenie v interkultúrnom prostredí mení požiadavky kladené na pracovnú spôsobilosť manažérov i zamestnancov nadnárodnej spoločnosti (Zhang & Edwards, 2007). Kritériom úspechu nadnárodnej spoločnosti sa stávajú mäkké pracovné kompetencie manažérov, najmä schopnosť interpersonálnej a interkultúrnej komunikácie a ich skúsenosti s prácou

v interkultúrnom prostredí. Manažéri nadnárodných spoločností musia byť citliví aj voči štátnej administratíve, lokálnemu trhu práce, verejnej mienke a reguláciám. Záujmom a zodpovednosťou manažérov nadnárodných spoločností je dosahovať výkonnosť na svetovej úrovni (Lim & Morris, 2006). Z toho dôvodu sa predpokladá, že manažéri pracujúci v rôznych hospodárskych, sociálnych, legislatívnych a kultúrnych podmienkach budú disponovať predpokladmi pre prácu nielen v národnom ale aj globálnom priestore. V snahe zaviesť do práce s ľuďmi určitý systém, sa v mnohých organizáciách doma i v zahraničí začal uplatňovať kompetenčný prístup s využívaním tvorby kompetenčných modelov.

Pojem kompetencia sa v odbornej literatúre a v praxi vyskytuje veľmi často, je však rôzne interpretovaný. Vo všeobecnosti sa kompetencia poníma ako súbor oprávnení a povinností, ktoré sú zverené určitému subjektu a v ďalšom význame ako schopnosť vykonávať určitú funkciu alebo súbor funkcií a dosahovať pritom určitú úroveň výkonnosti. V anglicky hovoriacich krajinách sa aplikujú pojmy *competence* a *competency*. Slovo „*competence* (kompetencia)⁵¹“ znamená odbornú kvalifikovanosť, pripravenosť a oprávnenosť subjektu vykonávať určité povolanie (Koubek, 2007). Vyjadruje predpoklady a očakávania (výsledky vzdelávania), čo musí byť človek schopný robiť a aké štandardy práce plniť, ak bude zastávať konkrétnu rolu na určitom pracovnom mieste. Slovo „*competency*“ definuje schopnosť správania alebo celkovú schopnosť človeka pracovať, zahrňujúcu odbornú spôsobilosť, schopnosť správania a vrodené schopnosti (Teodorescu, 2006; Armstrong & Taylor, 2014). V prípade, že jednotlivec vykonáva správnu prácu a robí ju dobre, precízne a správne, je pracovne spôsobilý.

Napriek tomu, že v slovníku slovenského jazyka sa neuvádza pojem kompetentnosť (*competency*), v publikáciách domácich autorov (Porvazník, 2011; Seková et al., 2013, Vetráková & Klincková, 2013; Minárová, 2014) sa rozlišujú pojmy kompetencia a kompetentnosť. Kompetenciou sa rozumie vymedzenie povinností, ktoré treba plniť na pracovnom mieste, právomoci a oprávnenia na efektívne vykonávanie pracovných úloh a zodpovednosti za využívanie získaných právomocí pri plnení povinností. Spôsobilosť sa viaže výlučne k osobe, ide o jej disponibilný ľudský kapitál, ktorého je výhradným vlastníkom. Dôsledkom rozdielných spôsobilostí jednotlivcov, napriek rovnakému vzdelaniu pre vykonávanie určitého povolania, je diferencovaná úspešnosť a výkonnosť. Integrita kompetencií (*competence*) a spôsobilosti (*competency*) jednotlivca tvorí jeho kompetentnosť.

Kompetenčné modely sú založené na modelovaní sústavy kľúčových (všeobecných, nešpecifických) a funkčných (špecifických osobnostných a profesijných) kompetencií a spôsobilostí. V praxi sa využívajú ako nástroj na zefektívnenie riadiacich procesov a hlavne riadenia trvalého rozvoja schopností a zručností zamestnancov v súlade s víziou, misiou a strategickými cieľmi organizácie (Veteška & Tureckiová, 2008). V kompetenčných modeloch manažérov nadnárodných spoločností (Antolíková (2012) je potrebné rešpektovať aj požiadavky pre prácu v interkultúrnom prostredí. Manažérske pozície obsadzujú jednotlivcami, ktorí disponujú odbornými vedomosťami, schopnosťami a kompetenciami pre vykonávanie práce v domácej krajine, ale aj tzv. mäkkými kompetenciami charakterizujúcimi osobnosť manažéra, schopnosť prispôbiť sa novej kultúre a mať globálne poznanie a globálnu orientáciu (Mendenhall & Osland, 2002 in Thomas & Lazarová, 2014).

⁵¹ Kompetencia (*competence*) sa vzťahuje k práci a znamená pripravenosť, oprávnenosť jednotlivca na vykonávanie určitej práce. Kompetentnosť (*competency*) sa vzťahuje k osobe, jednotlivcovi, ktorý prácu vykonáva a svojim správaním, prístupom k úlohám, povinnostiam preukazuje pracovnú spôsobilosť.

2. Metodika skúmania

Cieľom skúmania bolo zistiť, akú kvalifikáciu, aké vedomosti, schopnosti a kompetencie pokladajú manažéri nadnárodných spoločností pôsobiacich v Slovenskej republike za dôležité pre vykonávanie ich práce. Objektom skúmania boli manažéri vybraných nadnárodných spoločností pôsobiacich v Slovenskej republike. Pri skúmaní sme využili metódu sociologického opytovania a to dotazník a štruktúrovaný rozhovor. Získané informácie z dotazníka sme spracovali pomocou aplikácie Google Docs. Výstupom skúmania je návrh interkultúrneho kompetenčného modelu manažéra nadnárodnej spoločnosti.

Dotazník sme distribuovali osobne prostredníctvom kvalifikovaných anketárov, čím sme získali odpovede od 410 respondentov pracujúcich na manažérskych pozíciách. V dotazníku sme sa okrem identifikačných údajov zamerali na kvalifikačné predpoklady, potrebné na vykonávanie ich práce. Sústredili sme sa na požadované vedomosti pri voľbe 3 najdôležitejších z ponuky; zručnosti – schopnosti uplatňovať vedomosti a využívať know-how na splnenie úloh a riešenie problémov, ktoré si vyžaduje ich práca; kompetencie – preukázané schopnosti použiť vedomosti, zručnosti a osobné, sociálne a/alebo metodologické schopnosti potrebné pre úspešnosť ich práce; kľúčové kompetencie – kombinácia vedomostí, zručností a postojov primeraných danému kontextu, ktoré potrebujú všetci jednotlivci na osobné uspokojenie a rozvoj, aktívne občianstvo, spoločenské začlenenie a zamestnanosť (zoradenie podľa významnosti); základné všeobecné kompetencie nevyhnutné pre ich prácu. Skúmali sme názory na školské vzdelávanie v prepojení na pripravenosť pre prácu manažéra v interkultúrnom prostredí (výber zo škály určite nie až po určite áno) a zvládnutie adaptačného procesu na manažérsku prácu v interkultúrnom prostredí (otvorená otázka s uvedením najzložitejších a najťažších situácií v procese adaptácie).

Osobné rozhovory sme uskutočnili s 22-mi manažermi vybraných nadnárodných spoločností, prevažne s manažermi ľudských zdrojov. Z hľadiska odvetvovej štruktúry výberový súbor tvorilo 13 hotelov, ktoré sú súčasťou 4 hotelových spoločností, 7 výrobných spoločností, 4 obchodné spoločnosti, 3 spoločnosti zamerané na poskytovanie služieb a informačných technológií, 2 automobilové spoločnosti a 2 finančné spoločnosti. V rámci rozhovorov sme pozornosť sústredili na prístupy k riadeniu z úrovne materskej spoločnosti, právomoci a zodpovednosti miestnych manažérov, predpoklady na vykonávanie práce v interkultúrnom prostredí a zhodnotenie práce v národných a nadnárodných spoločnostiach. V príspevku prezentujeme čiastkové výsledky skúmania, týkajúce sa predpokladov na vykonávanie manažérskej práce v interkultúrnom prostredí.

3. Výsledky skúmania

Z vyhodnotenia identifikačných údajov respondentov vyplýva, že v skúmanej vzorke 410 podnikov, bolo najviac (63,9%) spoločností s ručením obmedzeným, 32,2% akciových spoločností, zvyšok tvorili verejné obchodné spoločnosti, komanditné spoločnosti, družstvá a združenia. Podľa oblasti pôsobenia najväčším podielom boli zastúpené spoločnosti s priemyselnou produkciou (41,7%), 21% z oblasti obchodu, 9,8% tvorilo peňažníctvo a poisťovníctvo, 6,1% stavebníctvo a zvyšok ostatné. Nadnárodných spoločností obsahovala skúmaná vzorka 62,9%, domácich so zahraničnou majetkovou účasťou 37,1%. 31,5% spoločností zamestnáva viac ako 500 zamestnancov, 47,6% od 25 do 500 zamestnancov a 21% pod 24 zamestnancov. Najviac respondentov bolo vo vekovej kategórii od 31 do 40 rokov (39,5%), od 41 do 50 rokov 29,5%, od 20 do 30 rokov 17,6% a viac ako 50 rokov 13,4%. Muži boli zastúpení 61,2%, ženy 38,8%. Podľa stupňa ukončeného vzdelania najväčšie zastúpenie

mali respondenti s 2. stupňom VŠ vzdelania, 20,2% SŠ s maturitou, 11,7% s VŠ 1. stupeň a 3,4% s VŠ 3. stupeň. Slovenskú národnosť malo 95,1% respondentov a inú 4.9%.

Manažéri národných i nadnárodných spoločnosti pokladajú vedomosti o manažérskych funkciách a schopnosť efektívnej komunikácie za najvýznamnejšie. V obidvoch kategóriách respondentov sa na poslednom mieste významnosti umiestnila schopnosť sebariadenia. Z poradia kompetencií potrebných na dosahovanie pracovných úspechov je zodpovednosť za svoj výkon najdôležitejšia, nasleduje iniciatívnosť a samostatnosť pri riešení problémov. Pre prácu v interkultúrnom prostredí sú dôležité všetky všeobecné kompetencie a to najmä schopnosť plánovať a riadiť svoj čas (48 %), komunikovať v cudzom jazyku (43,9%), pracovať v tíme (41%), motivovať ľudí a angažovať ich na dosiahnutie spoločných cieľov (40,7%) a schopnosť identifikovať, predstaviť a riešiť problémy (39,5%). Manažéri pôsobiaci v nadnárodných spoločnostiach nevnímajú školské vzdelávanie na stredoškolskej a vysokoškolskej úrovni ako významný faktor prípravy na prácu manažéra v interkultúrnom prostredí.

Manažéri 22 nadnárodných spoločností v štruktúrovanom uviedli, že najdôležitejším predpokladom na vykonávanie vrcholovej manažérskej v interkultúrnom prostredí patrí jazyková vybavenosť (14), schopnosť vedenia ľudí (11), odolnosť voči stresu, flexibilita a empatia (5). Ďalšie v menšej početnosti: manažérske funkcie, pochopenie trhu a potrieb zákazníkov, kľúčové vzťahy, tolerancia, entuziazmus, proaktivita, integrita, objektivnosť, vytrvalosť, zodpovednosť, tvorivosť, analytické a strategické myslenie, ovládať IKT, adaptácia, akceptácia rozdielnosti, ochota vzdelávať sa, riadenie zmeny, praktické skúsenosti, ochota cestovať, rešpekt ku kultúrnym odlišnostiam, otvorenosť novým veciam / názorom / spôsobom práce / formám komunikácie, skúsenosť v zahraničí. Diskutované prejavy správania, ktoré charakterizujú jednotlivé, vyššie uvedené schopnosti a zručnosti sú súhrnne spracované v zložkách interkultúrnej kompetencie, ktoré sú súčasťou návrhu kompetenčného modelu manažérov nadnárodných spoločností.

Na základe teoretického poznania (Lasonen, 2005; Graf, Mertesacker, 2009 a iní) a realizovaného skúmania môžeme konštatovať, že autori teórií interkultúrneho manažmentu aj manažéri nadnárodných spoločností sa zhodujú v tom, že interkultúrna kompetencia obsahuje nasledujúce zložky: schopnosť efektívne komunikovať a spolupracovať v rôznorodej skupine, otvorenosť voči rôznorodosti, hodnotová integrita, zvládanie záťaže a sebakontrola.

Table 1: Úrovně prejavov schopnosti efektívne komunikovať

4	Ústny a písomný prejav je vždy zrozumiteľný a jasný, stručný, vyzdvihuje všetky dôležité informácie. Vie predvídať, alebo okamžite rozpoznať potreby a rôznorodosť publika, a vie sa vždy prispôbiť štýlu komunikácie vhodnému v danej situácii. Vnímavo počúva počas celej doby komunikácie a prejavuje svoje pochopenie správy a snaží sa získať všetky dôležité informácie. Vždy prezentuje odborné, zložité informácie tak, že ich rozloží do menších logických a pochopiteľných častí, používa rôzne pomôcky, prirovnania na podporu pochopenia obsahu v interkultúrnom kontexte.
3	Komunikuje jasne, stručne, štruktúrovane a prejav obsahuje všetky dôležité body. Vo väčšine prípadov vhodne prispôbuje svoj prejav rôznorodosti a potrebám publika. Pozorne počúva iných – pýta sa doplňujúce otázky, ktoré sú v súlade s kontextom a zmyslom komunikácie. Komunikuje odborné, alebo zložité informácie v logických a pochopiteľných častiach.
2	Vo všeobecnosti komunikuje zrozumiteľne, ale prejavu môže chýbať jasnosť a má veľa nepotrebných detailov. Uvedomuje si, že príjemcovia majú rôzne potreby, ale nevie sa im vždy prispôbiť. Prejavuje určité aspekty počúvania, ale nevie určiť dôležité informácie, alebo sa prejavuje nezaujmom, ale vie zozbierať určité množstvo informácií. Vie zjednodušiť zložité údaje, ale nie vždy do takej miery, aby boli zrozumiteľné a pochopiteľné aj pre iných.
1	Komunikuje nejasne, zdĺhavo, bez štruktúry a prejav neobsahuje dôležité body. Neberie do úvahy, že príjemca má rôzne potreby, svoj prejav neprispôbuje štýlu, ktorý sa očakáva. Nie je schopný zjednodušiť zložité správy, alebo pomýli/zmätie príjemcu zdôraznením nesprávnych častí informácie.

Source: Vlastné spracovanie.

Tieto zložky sú súčasťou návrhu kompetenčného modelu manažérov nadnárodných spoločností. Úroveň rozvinutosti kompetencie škálujeme podľa BARS, pritom úroveň 4 predstavuje najvyššiu úroveň. Schopnosť efektívne komunikovať sa prejavuje v dimenziách zrozumiteľnosti komunikácie, vnímania rôznorodosti publika a situácií a v aktívnom počúvaní v národnom i v interkultúrnom prostredí.

Schopnosť spolupráce v rôznorodej skupine má dimenzie motivácie, vytvárania a formovania vzťahov a dôveryhodnosti v skupinovom partnerstve. Táto schopnosť je vytvorená kombináciou schopnosti tímovej spolupráce a vedenia.

Table 2: Úrovne prejavov schopnosti spolupráce v rôznorodej skupine

4	Pravidelne motivuje ľudí pri plnení úloh, pri delegovaní úloh poskytuje jasné a zrozumiteľné usmernenia a podporu, a pravidelne povzbudzuje ľudí, aby dosiahli podnikové ciele. Podporuje pozitívne pracovné vzťahy s rovnakým zameraním na interné a externé strany, v snahe zistiť a zdôrazniť spoločné ciele a záujmy. Logicky argumentuje a chápe potreby iných, efektívne ovplyvňuje správanie rôznorodých členov skupiny tak, aby sa dosiahli stanovené ciele. Pôsobí dôveryhodne, plánuje a buduje svoj dobrý imidž a imidž zamestnávateľa.
3	Vie motivovať ľudí - pri delegovaní úloh poskytuje usmernenia a podporu, a príležitostne povzbudzuje ľudí, aby dosiahli ciele podniku. Buduje pozitívne interné a externé pracovné vzťahy tým, že zdôrazňuje spoločné ciele a záujmy. Pri presvedčaní používa argumenty, a/alebo presvedčanie prispôbuje rôznorodým záujmom, potrebám a úrovni ľudí tak, aby boli dosiahnuté stanovené ciele. Vierohodne buduje dobrý imidž vlastného pôsobenia, ako aj pôsobenia zamestnávateľa.
2	Prejavuje pozitívne aspekty motivácie ľudí pri plnení úloh, ale väčšinou deleguje úlohy bez usmernenia a podpory a zlyháva pri povzbudzovaní ľudí, aby dosiahli ciele podniku. Má negatívny názor na budovanie pozitívnych pracovných vzťahov, zameriava sa iba na oblasti konfliktov a nezaujíma sa proaktívne o budovanie pevných pracovných vzťahov. Prejavuje určité schopnosti ovplyvňovať iných, ale vzdá svoje úsilie, keď sa stretne s odporom, alebo tlakom okolia. Snaží sa o budovanie dobrého vlastného imidžu a imidžu zamestnávateľa, ale nevie to plánovať a riadiť.
1	Nevie motivovať ľudí pri plnení úloh, pretože nerozumie kultúrnym odlišnostiam. Pri delegovaní úloh neposkytuje usmernenia, ani podporu. Nepovzbudzuje ľudí, aby dosiahli ciele podniku. Nebuduje pozitívne interné a externé pracovné vzťahy, naopak - umožňuje, aby sa ľudia na základe interkultúrnych odlišností navzájom odcudzili. Nesnaží sa o budovanie dobrého vlastného imidžu a imidžu zamestnávateľa na verejnosti.

Source: *Vlastné spracovanie.*

Otvorenosť voči rôznorodosti je predpokladom spolupráce jednotlivcov z rôznych kultúrnych prostredí. Prejavuje sa v rešpektovaní odlišných názorov a potrieb a v prejavovaní spravodlivého a etického prístupu vo všetkých situáciách. Otvorenosť voči rôznorodosti je aj vyjadrením ochoty uznať odlišnosti, ktoré predtým neboli vnímané a porozumené. Môže obsahovať aj schopnosť empatie.

Table 3: Úrovne prejavov otvorenosti voči rôznorodosti

4	Proaktívne prejavuje férové a etické správanie, zhromažďuje objektívne informácie z rôznych zdrojov a povzbudzuje ostatných, aby konali tak isto. Je otvorený k ostatným, bez ohľadu na ich individuálne rozdiely, správa sa podľa princípov rovnosti.
3	Férovo a objektívne zhromažďuje neskrútené informácie z rôznych zdrojov. Prejavuje otvorený prístup, ktorý podporuje a zohľadňuje individuálnu rozdielnosť iných (ich názorov, postojov a správania).
2	Zhromažďuje informácie z rôznych zdrojov, rozpoznáva nespravodlivosť, ale nerieši ju. Chápe potrebu otvoreného prístupu, ale nie vždy podporuje a zohľadňuje individuálnu rozdielnosť iných (ich názorov, postojov a správania).
1	Nezhromažďuje informácie z rôznych zdrojov, nerozpoznáva nespravodlivosť a/alebo ju nerieši. Nie je otvorený voči individuálnej rozdielnosti iných (ich názorov, postojov a správania) a nezohľadňuje ju.

Source: *Vlastné spracovanie.*

Hodnotová integrita predstavuje porozumenie hodnôt zamestnávateľa, ich rešpektovanie a presadzovanie hľadáním vhodných vzorov správania v interkultúrnom prostredí. Manažér v nadnárodnej spoločnosti pôsobí ako vzor, ktorý vie rozlíšiť správanie ktoré podporuje alebo nepodporuje hodnoty a prístupy materskej spoločnosti k lokálnym podnikom.

Table 4: Úrovně prejavov hodnotovej integrity

4	Vždy presadzuje rešpektovanie hodnôt organizácie v rôznych situáciách, je vzorom správania sa v zmysle hodnôt a zabezpečuje prezentáciu hodnôt organizácie. Je vzorom v správaní a vo vysokej miere prijíma zodpovednosť za aktivity, ktoré riadi. Aktívne spochybňuje neprijateľné správanie, bez ohľadu na miestne normy, prijíma zodpovednosť za svoje správanie, otvorene vystupuje proti nevhodnému správaniu iných, prípadne navrhuje preventívne opatrenia. Je lojálny, vzor hrdosti príslušnosti k podniku, problémy podniku vníma ako svoj problém.
3	Rešpektuje hodnoty a pravidlá podniku a správa sa podľa nich vo všetkých situáciách. Prejavuje čestnosť, prijíma zodpovednosť, rešpektuje záväzky a otvorene priznáva vlastné chyby, preberá zodpovednosť za svoje správanie. Vyzýva na zmenu nevhodného správania u iných apelom na hodnoty podniku. Je hrdý na to, že je súčasťou podniku.
2	Chápe hodnoty a pravidlá organizácie, ale nespráva sa podľa nich vo všetkých situáciách. Prejavuje čestnosť a zvyčajne prijíma zodpovednosť za svoje správanie. V niektorých krajných prípadoch nevhodného správania využíva štandardné opatrenia, menšie prehrešky prehliada. Je lojálny a hrdý na to, že je súčasťou organizácie, ale nesnaží sa ovplyvňovať iných.
1	Neprejavuje záväzok alebo porozumenie voči hodnotám, nespráva sa podľa nich. Nepripúšťa svoje chyby a popiera zodpovednosť za svoje správanie alebo koná nečestne. Sám sa nevhodne správa alebo ignoruje nevhodné správanie druhých, nezasahuje. Nestará sa o problémy organizácie, v organizácii „len pracuje“, stará sa len o uspokojenie vlastných individuálnych záujmov.

Source: *Vlastné spracovanie.*

Zvládanie záťaže a sebakontrola (predchádzanie konfliktom v interkultúrnych situáciách) je súčasťou práce manažéra nadnárodnej spoločnosti. Ide o schopnosť pracovať pod tlakom a zachovať si sebakontrolu aj v situáciách kedy je manažér vystavený neporozumeniu, prípadne nepriateľskému správaniu, nevráživosti alebo provokácii.

Table 5: Úrovně prejavov schopnosti zvládania záťaže a sebakontroly

4	V mimoriadnych a naliehavých záťažových zostáva racionálny, kontroluje svoje správanie aj pod dlhodobým tlakom, prípadné emócie sa prejavujú až po odznení záťaže. Je schopný vnímať a posudzovať emócie vzniknuté v záťažových situáciách. Je schopný sústredene zvládať väčšie množstvo úloh naraz, efektívne pracuje aj napriek konštantnému tlaku (z nedostatku času, protichodných informácií, neporozumie úloh skupinou, nových úloh a iných požiadaviek). Reaguje primerane asertívne po celý čas, aj keď je vystavený dlhodobej neistote a frustrácii. Aktívne preberá kontrolu nad situáciou alebo udalosťou, bez ohľadu na tlak, zohľadňuje pritom názory druhých, pričom dôveruje svojmu vlastnému rozhodnutiu.
3	V mimoriadnych a naliehavých záťažových situáciách ostáva pokojný a rozvážny, môže prejavovať mierne emócie, ale primerane rýchlo ich vie dostať pod kontrolu. V extrémne náročných situáciách sa naplno sústreďuje, v mimoriadnej a naliehavej situácii dokáže stanovovať priority. Reaguje primerane väčšinu času (rešpektuje seba aj druhú stranu), aj keď je vystavený neistote a frustrácii. Verí si a ovláda sa v prípadoch, keď čelí kritike. Otvorene vyjadruje svoje myšlienky a názory, aj keď sa môže stretnúť s nepochopením, či kritikou iných.
2	V záťažových situáciách sa prejavuje pokojne, ale pod vplyvom dlhotrvajúcej záťaže javí známky emócií alebo až iracionálneho správania. Je sústredený, ale má tendenciu byť občas pri práci nepozorný alebo frustrovaný, keď je pod tlakom. Snaží sa správať asertívne, ale v náročných situáciách reaguje konfrontačne. Sú zjavné jeho pokusy prevziať kontrolu, ale rýchlo stráca sebadôveru, keď je ostatnými spochybňovaný.
1	V záťažových situáciách rýchlo stráca pokoj a správa sa iracionálne. Je neefektívny a úplne stráca koncentráciu na úlohu, ak je pod tlakom. Zriedkakedy sa správa asertívne, reaguje spravidla pasívne alebo neprimerane agresívne (konfrontačne). Nesnaží sa prevziať kontrolu, neverí si a je skôr pasívny.

Source: *Vlastné spracovanie.*

Prezentované zložky interkultúrnej kompetencie sú obrazom viacerých schopností a kompetencií. Aj pre tento návrh kompetenčného modelu platí, že rozvoj jednotlivých zložiek musí prebiehať komplexne vo všetkých jeho dimenziách.

4. Conclusion

Cieľom teoretickej časti príspevku bolo zosumarizovať názory odborníkov na požiadavky, ktoré majú splňať manažéri nadnárodných spoločností, aby bola ich práca efektívna a na tvorbu kompetenčných modelov globálnych manažérov. Cieľom výskumnej časti bolo preskúmať, akú kvalifikáciu, aké vedomosti, schopnosti a kompetencie pokladajú manažéri nadnárodných spoločností pôsobiacich v Slovenskej republike za dôležité pre vykonávanie ich práce. Na základe excerptie poznatkov z odbornej literatúry domácich a zahraničných autorov a spracovaných výsledkov primárneho skúmania sme navrhli všeobecný kompetenčný model manažéra nadnárodnej spoločnosti. Model je prispôsobiteľný na konkrétne pomery a situáciu akejkoľvek nadnárodnej spoločnosti.

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BUSINESS-PROCESS APPROACH IN AN AUTOMOTIVE INDUSTRY ENTERPRIS IN CONDITIONS OF GLOBAL COMPETITION

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Abstract. Background: Despite the diversity of theoretical and methodological approaches to the formation of business-processes in the management of companies, theoretical and methodological provisions are necessary, including approaches to the management of the efficient organization of industrial enterprise, personnel management system, which allow us algorithm realization approach of landscape design business processes in the enterprise engineering. Methods: In this article, based on comparative analysis and sociological study. Results: Researched and compiled existing approaches and methods for optimization of business processes to accelerate the development of new technological products, the algorithm implementation approach landscape design business processes in the enterprise engineering, assessed the effectiveness of the project.

Keywords: mechanical engineering, business processes, effective management

JEL Classification: L23, L71, F15

1. Introduction

Interaction between manufacturers predetermines the necessity of changing the approaches to business solutions and requires the use of new strategic methods of management, altering the theoretical and methodological basis of the production management in terms of creating a new highly technological product. The increasing of the “complexity of the product” can be explained by the presence of asymmetrical information in the market, when the value of the product for the customer is also defined by his expenses for searching when buying certain products and the fiercer competition in the age of economic globalization. The task of developing a complex product is often solved in the context of the perpetual growth of technical, market and organizational interdependences. The complexity grows even more in industrial production, where the rates of technical development, competition and growing requirements from customers determine the need for new technical solutions/functions of the product and the growing need for flexibility of production. The concept of the product development control dominating over the technological solution of organizing the production becomes insufficient in such complex and dynamic conditions. Most of the companies often have a strong need in organizing the complex development of the product and reducing the market ambiguity by means of thorough planning of the projects of complex high tech products development.

The goal of this study is offering practical application to the development control model for an automotive industry enterprise based on landscape design. According to the proposed goal the following tasks have been set: to research and summarize the existing approaches and methods of optimizing business processes for acceleration of the new high-tech products

development, to suggest an application algorithm for the approach to the application of landscape design of business processes at a machine-building enterprise, to estimate the efficiency of the implementation of this project.

The research of theoretical and methodological approaches to the formation of business-processes in works of Ansari, Garud & Kumaraswamy (2015), Ansari, Garud, Kumaraswamy, Abu-Nabah, ElSoussi & Alami (2016), Kamp & Ostergard (2016), Randari, Lin, Andersen & Medlin (2015), Fleming, Lynch & Kelliher (2015), Fleming, Lynch & Kelliher (2015).

2. Discussion

A fiercer competition between the manufacturers requires more effective production, introducing a system of early product planning, radical accelerating of the process of new products development – the reduction of time from the emergence of a product idea to its appearance on the market. The reduction of this time allows the manufacturer to gain competitive strengths with an earlier entry into the market; to improve the turnover indicators; to increase the product life cycle; to increase the gross revenue and the investment efficiency. With that being said, according to the researchers, financial losses when accelerating the process at the development stage of a new product are minimal compared to the opportunity lost due to the delay. In the late 1980s being one month late to enter the market for a company with a \$100 mln. annual volume of sales meant losing \$100 000. Intensifying the development process was several times less expensive. Nowadays lost profits are even more costly.

There is a number of approaches to accelerating the development of a new product. The most popular methods of accelerating the development, applied by many foreign and Russian companies, are:

- reduction of the fuzzy front end period – the time frame between ascertaining the demand for a product and the start of its development;
- simplification of communication between the team of developers and the management, creation of specific structures that follow the whole process;
- forming small cross-functional (multifunctional) groups of developers;
- start of the production process, creation and adjustment of the equipment before finishing the project. Involvement of production worker into the development process;
- dividing the process into small cycles. Abandoning regular control over phases of development in favor of quality control during the whole process;
- dividing the project into small parts or modules. Working on each module simultaneously. “Intersecting” developments. Alternative solutions;
- outsourcing, involving professionals from outside;
- wide use of models and prototypes that allows to reorganize the development process “on the go”. Introduction of the “pilot projects” practice.

At the present moment, as exemplified by the automotive industry, there is a tendency of mass production being orientated to satisfying the individual needs of customers, as well as the chain of activities of supplier companies gaining more significance for the key manufacturer processes.

The concentration led to the creation of standards for main business processes at the technology level and the development of an interenterprise cooperation system.

The process landscape (the landscape of business processes) is a set of business processes of an upper level enterprise, as well as the interconnection between them. Such processes can be many when the company's activity is highly developed. All of them can be described using the so-called productional-commercial chains: «the primary interaction with the customer to determine his demands – implementation of a request (application, order, contract, etc.) – aftersale support – monitoring the satisfaction of the demands».

The landscape allows to identify and regulate the processes (as part of the process approach) divided into four categories: management processes, business processes, supporting processes and the processes of measurement, analysis and improvement. The development of landscape (pattern of communication) of the business processes implies a certain algorithm:

- determining the limits of the business processes;
- description of the business processes using notations;
- development of documented procedures (standards, instructions, statutes);
- conducting risk measurement for the business processes;
- development of a balanced system of indicators of performance and efficiency of the business processes;
- choice of methods of monitoring and measuring business processes;
- introduction of a system of business processes auditing;
- development of remedial measures based on the results of the auditing;
- analysis of the integrated business processes and their further improvement based on the Shewhart-Deming PDCA cycle;
- reorganization experience for the organizational structure of a company directed at optimizing the interaction between the company's subdivisions in order to increase the results and effectiveness of business processes enterprise-wide;
- optimization of the existing business processes.

The main purpose of the process landscape is to standardize the structure and the main peculiarities of the interaction between the processes of an enterprise.

The next stage in understanding a landscape is the definition of landscape units:

1. The business processes (the main processes, the supporting processes, the processes of management, measurement, analysis, improvement);
2. Technologies (algorithms) of interaction (interrelation) of the processes;
3. The human factor.

This study, in the context of the acceleration of new products development, proposes to unfold / expand the traditional process landscape by integrating an outsourced manufacturer into it – the so-called manufacturer of the original equipment (the OEM-supplier); the subcontractor; the logistics agent. The integration is possible via:

1. Forming an inner logistics chain with further development of an integrated logistics chain of a brand as part of the preserved functional product life cycle;
2. Involvement of the suppliers and subcontractors in a set of interconnected manufacturing steps (within a single product-assortment chain) in the context of the unified process of the product development and production preparation, as well as development of the company standards; the organization of a single set of engineering and production documentation and other data used in the process (Andersen & Medlin, 2015). Thus, in this study we propose to understand a business processes landscape of a modern industrial company as an open multidimensional adaptation system that

provides uniform conditions, sufficient resources and balanced processes (business processes, technological processes) when manufacturing a high tech product.

3. Methodics

The methods of forming a new generation business processes landscape includes a number of measures:

Step 1: development of the product's concept – product initialization that includes the idea for the product, product selection and conceptual testing. The creation is viable on the basis of PLM (Product Lifecycle Management) tools that include standards and technologies, CAD and CAM tools, facilities for cooperative work and the integration of applications and documents that are uniform for all the participants of the corporate network. I. e., besides the functional features of the product the manufacturer has to decide on the suppliers of the product's components, subcontractors and the logistics chain;

Step 2: implementation of the product concept. This includes the development, experimental marketing and the startup of a large-scale production. At this stage the landscape of the enterprise is formed. It's based on a detailed elaboration of the product by using the "Manufacturability-Based Designing" method . The process of landscape formation includes:

1. Elaboration of the landscape configuration (determining the clusters of the upper level processes), including the identification of the limits of business processes; development of documented procedures (standards, instructions, statures); development of a balanced system of indicators of performance and efficiency of integrated business processes of all the participants; development of remedial measures and further improvement of the processes;
2. Management – establishing relations between the clusters of the upper level processes;
3. Software. Considering the large volume of work in the proposed solution , the development of systems of interaction between OEM-manufacturers and suppliers, subcontractors and logistics agents is possible in the area of the Business-to-Business (B2B), i.e. the integration of business scenarios; the alteration of the processes' architecture (EA) and integration of various business applications in IT-landscapes (Application-to- Application).

The landscape model of business processes as a simplified model of the value chain must basically be a multi-level integrational network that includes all the participants of the process and must include eight elements:

- 1) A BPM-system – the business processes management (BPM) for the participants of the integrational system, establishing rules of interaction;
- 2) Tools for end users of the system;
- 3) An information management system (collecting, aggregation, coordination, storage, etc.), the procedure-documenting procedure, the chart of accounts, agreements / contracts with business partners, etc.;
- 4) A B2B system;
- 5) A system of an operational service of processes;
- 6) Open networks for the participants' interaction;
- 7) Monitoring information and management;
- 8) Technical and operational support of the system – IT-support of databases, integration, etc.

Using this model will help to provide: reduction of expenses for designing the product, as well as for maintenance and use of the system up to 30 %; reduction of the time of product development – 1.5–2 times; reduction of the time of introduction of new products to the market up to 75 %; reduction of the reject rate and the expenses related to engineering changes up to 75 %; reduction of expenses for the technical documents preparation up to 40 %; reduction of expenses for the development of operational documents up to 30 %; significant decrease of defective products, improvement of quality; decrease of equipment stoppage time caused by an unbalanced load of production facilities.

Table 1: Efficiency/performance indicators for the main business processes that characterize the development level of Kamaz in terms of foundry production

Process	Efficiency/performance indicators for the business process	indicator value	2013	2014
Production	1. Compliance with the plan, %	100	100	100
	2. Gain in production compared to the previous year, %	20	5	10
	3. Expenses for reworks, % of prime cost	0	0,25	0,02
	4. Transferring products to the quality office after the first presentation, %	98	98	98
	5. Losses due to rejects in commercial production, %	0	2	0
	6. Number of procedural violations	0	5	2
	7. Number of rejects statements	0	2	0
	8. Reduction of direct costs, %	5	5	5
	9. Reduction of overhead costs, %	4	4	4
Materials management	1. Rate of non-certified raw materials, %	0	0	0
	2. Rate of raw materials that did not pass the incoming goods inspection	0	0	0
	3. Materials and components accepted at the incoming goods inspection after the first presentation, %	90	90	90
	4. Number of complaints about the components, pcs.	0	0	0
User feedback	1. Rate of completed orders to accepted ones	100	100	100
	2. Number of signed agreements	150	150	150
	3. Number of new agreements	10	20	20
Monitoring of customer satisfaction	1. Number of accepted complaints	0	10	9
	2. Increase in sales compared to the previous year, %	20	10	10
	3. Number of complaints about storage, loading and unloading operations and transportation	0	0	0
Managing the products that do not comply with the established requirements	1. The rate of products that do not comply with the established requirements, %	0	0	0
	2. Number of non-conformant reports about the non-compliant products.	0	0	0
	3. Rate of actions based on non-conformant reports about the non-compliant products.	100	100	100
	4. Rate of expenses for reworking the defective products to the prime cost, %	0	0	0

Source: self-processed

Uniting internal and external business processes can be implemented using SCM (Supply Chain Management), CRM (Customer Relationship Management), VAN (Virtual Area Network), ERP (Enterprise Resource Planning). This concerns not only the internal working processes of the company but also (Sharafutdinova, 2015).

The proposed organization of business processes of a new generation implies four groups of business processes: 1. Incoming flow; 2. Expansion of the system through separate new elements; 3. Developing a new business architecture of the system. Every group of processes, in its turn, can be divided into internal management and functioning processes.

4. Results

The proposed method of forming a business processes landscape of a new generation helps to solve the following tasks: structuring (improving) the work in the sphere of dissimilar business processes; simultaneous designing of the product and the processes, i.e. complex technical systems; integration of the systems of product development into the business processes landscape of the company; integration of the participant enterprises within the PLM concept. In particular, the performance targets of the main business processes that characterize the development level of Kamaz, that resulted from proposals for new generation business processes in terms of foundry production are presented in table 1.

On the basis of the Harrington scale of processes performance level detection we established that the majority of the processes (80 %) have a “high” level of performance, with the “medium” level being 20 %. The performance indicator for an integrated management system based on the processes performance findings and weight coefficients is equal to 0.81, judging by which we can make a conclusion that the integrated management system of an enterprise is functioning effectively, but it is necessary to develop marginal remedial actions.

The methods of forming and developing business processes landscapes in the automotive industry within the evolutionary model change must include several stages:

Stage 1. “Transition from batch production” at OAO Kamaz to the creation of a “Single-piece flow”. Its essence is as follows.... When produced in large batches most materials spend 95% of the whole time in the production process either waiting for added value, or as a part of the end product stock. The stocks slow down the processes, slow processes are prone to losses, and any losses affect the prices .

Goals of creating a Single-piece flow:

1. Reduction of the time of an order execution (ideally – a single-piece flow from raw materials to the end product, without creating stock between operations and surplus of the product in warehouses);
2. Eliminating losses in the work of operators (repackaging, recosting, transportation, etc.) and providing balanced loading;
3. Flexibility – for effective production of small batches according to the consumption rate for each product type;
4. Releasing the resources (stocks and premises);
5. Reduction of costs for both repairable and irreparable rejects [9].

Stage 2: Visualization and control of the parameters of existing processes at the enterprise, which helps to standardize and partially unite them. Russian automotive enterprises see the solution of this problem in the use of the “Heijunka” tools – leveling the production both in terms of the volume of work and according to the listed products. For this purpose one flow of simple and complex products can have a “flows leveling” principle.

Stage 3. Reduction of the number of business projects that serve to the technological process by designing hybrid production processes. The hybridization of modern state-of-the-art technologies, as well as business processes is a way of achieving new possibilities in production. It has been practically established that hybrid processes can improve the production in terms of the process of shortening the chain, introduction of new properties of the product and increasing the productivity.

Stage 4: Benchmarking to determine the effectiveness of business processes. For example, the company and the results of all its activities are assessed by the management and the customers in ppm (parts per million) – an indicator of measuring the quality.

Stage 5: The introduction of the process management concept at the enterprise via the benchmarking process (benchmarking as a regular business process).

The challenge for the management of an enterprise in the 2010s is the transition from the functionally-oriented management to process management (Krumeich, Werth & Loos, 2016). The basis for that is that the economic efficiency of a process-oriented management system is several times higher than the basic performance indicators of the company in the context of a functionally-oriented management (table 2).

Table 2: Comparison of customer-oriented enterprises with average enterprises (average indicators for 2000s)

Company performance indicators	Process-oriented management system, %	Functionally-oriented management, %
Refund and return on equity capital	17	11
Return on turnover	9.2	5
The growth in market share	6	2
Reduction of costs	10-15	2-3
The growth rate of the Central Bank. at the exchange market	16.9	10.9

Source: self-processed

5. Conclusion

The study revealed that.

1. Currently, Russia has an extremely low level of structuring / optimization of business processes of manufacturers that makes any attempt to improve production efficiency destined to fail.
2. Most often, the process management that has been developing in Europe, was applied in Russia in a very limited way - usually only in the framework of an integrated enterprise quality management system (Ferreira, Nogueira, Bernard, Spencer. et al., 2015). Elements of successful process management can be found at Bor Glass Works (town of Bor), Zavolzhye Engine Factory (town of Zavolzhie), Instrum-RAND and Pavlov Bus Factory (town of Pavlov), OSVAR (town of Vyazniki), AvtoVAZ (city of Tolyatti), NPO Electromashina (Moscow).
3. The most important problem for the Russian engineering is the problem of low efficiency of business processes – Russian indicators are 4 times lower. An example is the number of employees working on the same operation. While in Europe or in the United States one person manages an operation, in Russia we will have four professionals working on it. (Ansari, Garud & Kumaraswamy, 2015; Walters, James, Sampson, Bhattacharya, Xue & Wadsworth, 2016). The labor compensation fund and production comparisons also confirm that.
4. Not a single company, even the largest one, does not have the necessary resources and competences for the development and implementation of complex methodologies and process management systems. Problems of such magnitude are solved at the state level or by joint developments of several consulting companies competing with each other, which contributes to their distribution and uniformity of emerging new processes and methods that would later become generally accepted. The APQP (Advanced Product

Quality Planning and Control Plan) methodology serves as a good example (Kamp & Ostergard, 2016).

5. In the absence of a government program, the benchmarking concept is the one responsible for solving this task, this concept having a key role in the strategic planning systems of such foreign companies as Toyota, Nissan, Ford, Volkswagen and others, and this concept is an effective tool. For instance, in the years 1990-2000 the majority of large foreign companies have already introduced programs for the introduction of advanced and exemplary methods of several famous companies: Fuji for production processes, Dupont for production safety, Hewlett Packard for allocation of production facilities and product development, Bin for distribution, American Express for financial statements, Toyota for quality management, Honda for working with suppliers, etc. (Ferreira, Nogueira, Bernard, Spencer. et al., 2015).

Accordingly, the process landscape of an enterprise should include benchmarking as an ongoing business process.

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OPPORTUNITIES FOR THE DEVELOPMENT OF THE EMISSION ACTIVITY OF THE RUSSIAN MUNICIPALITIES IN A GLOBALIZED ECONOMY

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Abstract. Currently in the Russian Federation in the structure of debt of municipalities are not a significant proportion of borrowings through the issuance of local securities. The purpose of this paper is to study the obstacles hindering the development of emissive activity of local authorities, and the formulation of proposals allowing to increase the interest of municipalities in the implementation of borrowing by issuing securities with minimum risk to local budgets in the globalized economy. The search for methods of stimulating the development of the Russian municipal bonds should be carried out using the comparison of statistical information of the Russian Federation and foreign countries for a certain period of time. As shown by the results of the study in Russia and Ukraine observed a similar trend: a small number of issuers and a small number of issues of municipal bonds. At the same time in the United States of America (USA) the situation is different: local bonds serve as an important tool for attracting financial resources by municipalities, as well as a stimulus for the development of local infrastructure. The implementation made in the article of suggestions would enhance the emission activity of municipal formations of the country and would contribute to financial market development in the Russian Federation.

Key words: municipal bond, budget, municipal budget, municipal debt, municipal securities.

JEL Classification: H74, H72, G28, R10

1. Introduction

International legal basis for the establishment of a national system of financing of municipalities in the Russian Federation is the European Charter of local self-government. In accordance with article 9 of the Charter: "local Authorities are entitled, within national economic policy, to adequate financial resources of their own, which they may dispose freely in exercising their powers. To Finance investments, local governments should, in accordance with the law have access to national capital market".

As shown by both international and Russian experience, still in no country in the world there is an optimum system of financing, which would allow us to fully and effectively meet the needs of municipalities. One of the sources of financing the municipal development programs in Russian and foreign practice are municipal securities.

In modern literature there are a small number of papers with international comparisons of borrowings by the local governments. First of all, it is necessary to note the works that characterizes the markets of debt securities (Aguiar & Amador, 2014), in particular, the market of municipal bonds (Schultz, 2012); the possibility of financing budgets (Shishkina & Sharafutdinova, 2016); comparison of the state and municipal loans (Baber et al, 2013); the system of regulation (Agnello & Sousa, 2014); as well as the forms and mechanisms of regional and municipal debt in Russia and in foreign countries (Newberry, 2015); effect on the issuing activity of municipalities of various factors (Rivers & Yates, 1997). The development of the municipal bond market reflects the process of financial integration of the countries of Central and Eastern Europe (Deltuvaitė, 2015, A).

2. Method

Legal regulation of loans to public entities in the countries of post-Soviet space in many ways similar. So in Russia and Ukraine it is based on the budget code and a special laws regulating the issue of securities, and by adopting for each issue of separate legislation. At the state level, the law stipulates the order of release and the feature of circulation of securities of state and municipal authorities, as well as the order of execution of debt obligations publicly-legal formations.

In the budgetary legislation of the Russian Federation the definition of "municipal loans" and secured the right for their implementation, and identifies possible targets of borrowing. Under the municipal borrowing refers to the borrowing undertaken by securities issue on behalf of the municipality, placed on the domestic market in the Russian Federation currency, and loans from other budgets of the budgetary system of the Russian Federation and of credit institutions that give rise to debt obligations of local government as borrower or guarantor. It should be noted that not allowed borrowing of municipalities in the currency of the Russian Federation outside the country.

Municipal securities do not have the status state, but their releases are registered by the Ministry of Finance of the Russian Federation.

In Ukraine, with the unitary system, local level authorities and regional and city councils. Therefore, in accordance with the budget legislation of Ukraine, local borrowing is the operation for obtaining the local budget credits (loans) on conditions of repayment, interest payment and urgency for the purpose of financing the local budget. In the legislation of the Ukraine establishes the right of city councils to make local domestic borrowings. In addition, city councils of cities with population over 300 thousand persons have the right to exercise local external borrowing. At the same time obtaining credits (loans) from international financial organizations is available for all city councils.

The current budget legislation in Russia allocated only two goals of the use of funds raised through issue of municipal bonds: financing of budget deficit, repayment of debt obligations. It envisages financing at the expense of borrowed funds "programs of development of public legal entities" that are allowed in the Budget code of Ukraine.

3. Result

For many reasons (the complexity of the issue procedure, limitation of the calculations of the expected volume of income, etc.) the funding needs of municipalities with municipal securities are widely disseminated in Russia have not received (Astrauskaite & Paškevičius,

2014). According to the Ministry of Finance of the Russian Federation on 1 October 2015 nominal amount of debt securities of municipalities amounted to 7.8 billion rubles (in 2011 - 8.3 billion rubles) from 447 billion rubles total debt of the subjects of Russian Federation and municipalities (in 2011 - 415.5 billion rubles). According to data of the Ministry of Finance to undertake an analysis of issue activity of local governments (table 1).

Table 1. Editions of municipal securities in Russia in 2009 – 2015

The municipality	2009	2010	2011	2012	2013	2014	2015
Volgograd	1	1	1	1		1	1
Kazan	1	1	1				
Krasnodar		1	1				
Krasnoyarsk	1		1	1			
Novosibirsk		2	2	2	3	1	1
Omsk						1	
Smolensk	1						
Tomsk		2		1		4	1
Ufa		1					
Elektrostal	1						
Total	5	8	6	5	3	7	3

Source: Ministry of Finance of the Russian Federation.

As can be seen from table 1, for the period 2009 – 2015, only 10 municipalities were issuing bonds, while the majority was registered on 1 release. Among the active issuers are allocated Novosibirsk, Volgograd and Tomsk.

The low percentage of municipal bonds on the Russian market confirms that "The municipal bond Index (MICEXMBITR)" of Moscow exchange (MICEX) now includes only 1 type of municipal bonds, the remaining 20 are the bonds of subjects of the Russian Federation (Table 2).

Table 2. The Index of municipal bonds of the Moscow exchange

Indicators	The Index of municipal bonds	Bonds of Novosibirsk
Price, rubles	214.13	91.32
The total number of securities	156,300,000	5,000,000
Market capitalization, millions of rubles	65,908,886,000	3,639
% of Total	100	2.6

Source: Moscow Exchange.

As can be seen from Table 2, the share of municipal bonds in the composition of the index is not more than 2%. In the period 2011-2013 in addition to the Novosibirsk in the composition of the index included bonds 3 more cities: Volgograd, Kazan and Krasnodar. The selection of bonds in the composition of the index occurs on a number of criteria: volume of issue at face value; the number of trading days during which the bonds were made of the transaction; duration of bilateral quotations. Low number editions of the Russian municipal bonds is due to the fact that interest rates on budgetary loans were well below market level, and municipalities were actively using them. Previous studies have shown that there are various factors affecting the issuance of municipal bonds and their interest income (Ziebell & Rivers, 1992). However, the development potential of the market, because borrowers to refinance Federal loans issued totaling more than 100 billion rubles a year. In addition to low emission activity of municipalities in Russia there is the problem of uneven territorial implementation issues (Glaeser, 2013). The vastness of Russia's territory requires an appropriate geographic development of stock market infrastructure. However, the state stimulation of regional development of this sector don't notice until only formulate the problem of economic

transformation in the country. Existing territorial disparities indicate the imbalances in the resource potential of public education (Ramazanov & Grigorian, 2015). In addition, the lack of regional professional securities market participants that are able to provide services in support of the issue of securities, is one of the limiting factors in the implementation of emissions by local authorities. Substitution of regional organizations of large companies from the capital restricts the ability of a regional segment of the stock market has a negative impact on the distribution of investment resources on a national scale.

Analysts identified the main problems typical of regional segment of the stock market, among which:

1. The lack of concepts of stock market development in the regions;
2. The low percentage of active transactions in the secondary market;
3. Lack of information transparency;
4. Lack of competence in matters of issuing and managing loans.

Unlike the budgetary legislation of Russia in Ukraine there is a norm, according to which local borrowing not only to Finance municipal budgets, but are used to create, increase, renewal strategic facilities long-term use or objects that provide implementation of tasks of city councils aimed at meeting the interests of the population. Analysis of the data registration issues of local bonds in 2007-2015 in Ukraine showed that the active issuers are: Zaporozhye, Kiev and Vinnitsa (Table 3).

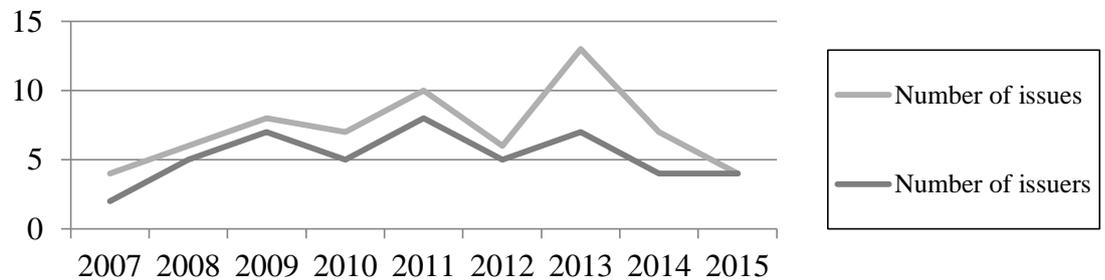
Table 3. The issuance of local bonds in Ukraine in 2007-2015

The Issuer	Number of issues	Total volume of issues, million UAH
Berdiansk	1	10
Borispol	1	9
Cherkask	1	5
Dnepropetrovsk	2	200
Donetsk	5	250
Ivano-Frankivsk	1	5.5
Kharkiv	4	704.5
Kiev	6	3,600
Komsomolsk	1	8
Kramatorsk	2	30
Kremenchuk	1	25
Lugansk	3	79.3
Lutsk	5	50
Lviv	5	582
Odessa	3	125
Severodonetsk	1	20
Vinnitsa	6	45
Zaporozhye	15	260

Source: Stock market infrastructure development agency of Ukraine.

Dynamics of equity issues and municipal activities in Ukraine in 2007-2015 years is presented in figure 1.

Figure 1. Dynamics of equity issues and municipal activities in Ukraine in 2007-2015



Source: Stock market infrastructure development agency of Ukraine.

As the chart in figure 1, there is similarity in the trends of development of the emission activity of the Russian and Ukrainian bodies of local self-government: a small number of emissions (13 issues per year) and issuers (8 municipalities).

However, in other countries, for example, in U.S. municipalities actively use the bonds to raise the required funding. So, at the beginning of 2013 municipal debt in the USA was \$3.7 trillion from \$17 trillion total domestic debt.

The history of the development of municipal bonds in the United States has more than 200 years. Local bonds are a popular instrument for financing infrastructure development in the United States. Local bonds are a popular instrument for financing infrastructure development in the United States. According to experts in the energy sector annually invests over \$ 11 billion received from placing local bonds (Racheva-Sarabian, A. et al, 2015). In 1975, created the self-regulatory body of the municipal bond market - the Council to establish rules of the municipal securities market, carrying out the defense and public control over the issuance of municipal bonds. Data on the number of issuers and bond issues until 2013 is not officially tracked. According to various sources was issued more than 46,000 bond, but was included among States, cities, towns, state and municipal institutions. At the same time, issues of public companies was approximately 5,700 (Racheva-Sarabian, A. et al, 2015).

The emission activity of municipal entities of the USA are presented in Table 4.

Table 4. Issue local bonds in the USA in 2014-2015

Indicators	2014	2015
Number of issues	12,522	12,087
The total volume of emissions, \$ Millions	359,777.5	365,597.1

Source: Racheva-Sarabian, A. et al (2015).

As can be seen from Table 4, despite the reduction in the number of emissions, the total volume of loans grows, increasing their average size.

Municipal bonds are popular among the people of the United States. They despite the small yield of have two advantages: low probability of default, implement them under civilian control residents of the municipality; granting to the bondholders the tax benefits.

The Russian tax law provides an investment tax deduction for the payment of the tax to incomes of physical persons. The condition of its granting is a three-year period of ownership by way of securities, that at current short-term municipal bonds can be difficult to meet.

U.S. law gives more autonomy to their municipalities in the implementation of the bond issue.

Set in Russia a phased reduction of budget loans makes it relevant to the municipalities use market instruments to raise finance. The researchers note that development of municipal bond is also necessary in European countries such as Germany (Borck et al, 2015). The development of the market for municipal securities is required under the conditions of globalization (Deltuvaitė, 2015, B).

4. Conclusion

On the basis of the study in order to enhance the emission of activity of municipal formations of Russia, we consider it necessary to implement the following proposals:

- changes in conditions of provision of investment tax deductions the owners of municipal bonds, excluding term securities owned;
- based on the experience of Ukraine to include in the purposes of use of funds from issue of municipal bonds: "creation, growth, renewal strategic facilities long-term use or objects designed to meet the social needs of the population";
- establishment of specialized public institutions, carrying out the functions of public control over target use of borrowed funds municipal budgets, by analogy with the Council on the establishment of rules of the municipal securities market USA;
- creating and expanding the number of platforms for the trading of municipal securities, regional professional participants of the market, able to provide services on placement issues and deal with them.

Thus, this will create conditions for increase of issue activity of municipalities, which will lead to the formation of an efficient structure of funding that best meets the needs of municipalities for financial resources. Ultimately, the increase in sector of municipal bonds will have a positive impact on the development of the financial market of Russia.

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BRICS AT GLOBAL DEBT CAPITAL MARKETS (2005–2015)

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Abstract. The article reviews the BRICS's position on the global debt capital market during the 10 year period 2005–2015. The study analyses BRICS' activity in the segment of direct foreign investment and stock market, reveals new phenomena and objective laws of stock Indexes correlation, reviews stocks and Eurobond issues. It identifies common trends for developed and emerging markets, and the limitation of BRICS' markets as the source of world economic growth during post crisis period. There are some identities of BRICS' segment of global debt capital market. The stock markets are developed and have modern infrastructure. High level of liquidity and profits make it attractive for the global investor. National financial markets are used as trading venues for the global one. IPOs are placed in major financial centers such as London and Hong Kong, and in the peripheral stock markets. IPOs are accompanied by ADR option. IPO book-runners include not only global investment banks, but also Indian, Russian financial institutes. Before Global crises BRICS national stock markets provided sufficient investment capital, stock indexes demonstrated stability. Listing on the LSE and NYSE has become a regular practice. Before crises the annual gap between the highest and the lowest price was only 7% (correlation coefficient 0.9) compared to DJIA, FTSE and NASDAQ indexes. Comparable correlations with the London Stock Exchange (0.85) and NASDAQ (0.68) show that indexes were changing synchronously and unidirectionally with DJIA. Annual price/earnings ratio was 12–24%, which is only slightly less than DJIA and NASDAQ coefficient. In 2007 global capital market experienced fundamental changes and companies of emerging countries became major global investors.

Keywords. BRICS countries, Global finance, BRICS stock market, International money and debt capital markets, Stock Indexes correlation.

JEL codes: F30, G10, G15

1. Introduction

Modernization of the BRICS countries coincided with the development of the global economic environment which made it possible for the BRICS to enjoy all the benefits of globalization. One of the key features is the movement of capital (direct/portfolio foreign investments). Production is transferred from the financial center to the periphery and turns national markets into a segment of the global one, creates high-tech enterprises with modern management and production methods, opens access to international markets and creates MNCs. Dynamic economic development in the BRICS countries led to an increase in sovereign credit ratings from BBB to A, from speculative to investment grade. The BRICS' leading companies became increasingly competitive, gained access to the international money and capital markets, carried out syndicated borrowing and issued IPOs up to \$8–9 bln. (Vedomosty, 2007). Analysis

of the BRICS segment of the international capital markets with their trends, variations and correlations with leading stock indexes is highly relevant to contemporary economic research.

2. Results

The stock markets of developing economies are rather well developed and have an advanced infrastructure. High levels of liquidity and profits make them attractive for the global investor. National financial markets are used as trading venues for the global capital. Assets of such leading TNBs as *HSBC*, *Citigroup*, *UBS* are located in 60–80 countries around the world. In the 2000s average annual investment flows between developed and developing markets ranged from \$200bln. to \$700 bln.

Table 1 shows new types of transactions for BRICS companies on debt and capital markets: IPOs are placed in major financial centers such as London and Hong Kong, and in the peripheral stock markets of Brazil; IPOs are accompanied by ADR options. IPO book-runners include not only such global investment banks as *CS*, *Merrill Lynch*, *JPMorgan*, but also Indian financial institutes as *Kotak Mahindra*, *Enam Financial Consultants* and the Russian bank “*Renaissance Capital*”.

Comparing volume of securities issued per country, their share of the international capital market, number of issuers; BRICS countries still fall behind developed economies. For example, in 2006 Chinese companies placed 88 issues worth \$31bln. (7.4% of international market) and almost equal to England and France, Indian companies – 104 issues for a total of \$6.5 bln. (1.5%), Brazil – 30 issues (\$9.5 bln., 2.3%), in Russia – only 14 (\$15bln., 3.6%). To compare, in 2006 American companies placed 436 issues worth \$94 bln. (22.4% of the market). Overall, BRICS accounted for 14.5% of the international market and 10% of all issues, which may be an underestimation of BRICS activity, according to the International Financing Review, 2006.

In 2014 BRICS national stock markets provided sufficient investment capital (see table 1).

South African companies placed their shares only on the *Johannesburg Stock Exchange*. Major IPOs (12 issues) for the amount of \$286 mln. were carried out in ZAR by *Alexander Forbes Group Holding*, the diversified financial company. Brazilian companies made 42 initial and secondary public offerings, one of which was placed on the *NASDAQ*, the remainder – on *BOVESPA*. While funding was comparable (\$120–125 mln.), the number and quality of deals varied: Indian companies carried out 42 IPOs on Indian Stock Exchanges (*BSE u Natl India*), Chinese issuers carried out 178 transactions: 3 on the *NYSE*, others in *Hong Hong*, *Shenzen* and *Shanghai*, *Alibaba Group Holding* set the world record with \$21.77bln. IPO and Russian *Lenta* successfully placed shares on the *LSE*.

Listing on the LSE and NYSE and participating in deals with major western investment bankers (*Credit Suisse*, *Deutsche Bank*, *Goldman Sachs*, *JP Morgan Securities*, *Morgan Stanley*, *Citi*, *HSBC Bank Plc*, *UBS*) has become a regular practice for underwriters, book-runners and lead-managers. In these transactions book-runners rely on the financial institutions of emerging markets: *VTB Capital Plc* (Russia); *BOCI Asia Ltd*, *Pacific Crest Securities*, *China International Capital Corp*, *HK Securiti*, *Mizuho Bank Ltd*, (HK); *Religate capital markets*, *Kotak Mahindra Bank*, *Sarathi Capital Advisors Ltd*, *Microsee India Ltd*, (India); *Dougxing Securities Ltd*, *China Securities*, *Huarong Securities Co Ltd*, *China Lion Securities Ltd*, *Huafu Securities Ltd* (China); *Java Capital*, *One capital* (South Africa).

Table 1. Initial/secondary public/private offerings of BRICS companies on developed and national stock markets in 2006 and 2014

Country	Issuer	Ammo unt, \$bln.	Type of offering	Organizer/ Book-runner	Issuer	Ammo unt, \$bln.	Type of offering	Organizer/ Book-runner
	2006				2014			
India	<i>Power Finance Corp</i>	0.321	IPO Privatization (according to Government plan)	<i>Enam Financial Consultants, Kotak Mahindra</i>	<i>Adlabs Entertainment</i>	4.3 bln INR	IPO Natl India 20.3 mln Ord. shares	<i>Kotak Mahindra Capital Co SPV Deutscher Equities India Pte Ltd</i>
	<i>Cairn Energy India</i>	2	IPO LSE	<i>ABN AMRO, Merrill Lynch</i>	<i>HDFC Bank Ltd</i>	1.3 bln USD	IPO	<i>Goldman Sachs, Barclays, Mahindra Bank Ltd</i>
	<i>Kalpataru PowerTransmission</i>	0.075	Private Qualified Institutions Placement with an option ADR/GDR markets	<i>Kotak Mahindra</i>	<i>Bharti Infratel Ltd</i>	311 mln INR	Secondary 144 A	<i>UBS, Bank of America</i>
Brazil	<i>Medial Saude</i>	0.300	IPO (secondary) First healthcare deal	<i>Credit Suisse</i>	<i>Ouro Fino Saude Animal Pa</i>	363.460 mln BRL	IPO Bovespa, 13.46 mln Ord. shares	<i>Banko do Brazil SA</i>
	<i>Electropaulo Metropolitana</i>	0.533	IPO (secondary) Level 2 listing on the Bovespa	<i>Credit Suisse, JPMorgan</i>	<i>Garnero Group Acquisition</i>	125 mln USD	IPO NASDAQ 12,5 mln Ord. shares	<i>Early Bird Capital Inc</i>
					<i>Porto Sudeste VM SA</i>	188 mln BRL	Secondary	<i>Credit Suisse</i>
China	<i>Action Semiconductor</i>	0.083	IPO (primary)	<i>Citigroup, Morgan Stanley</i>	<i>Alibaba Group Holding Internet Co</i>	21.7672 bln USD	IPO NYSE	Lead manager <i>Credit Suisse</i> Co-lead manager books: <i>Deutsche Bank, Goldman Sachs, JP Morgan, Morgan Stanley, Citi, BOCI Asia Ltd, China International Capital Corp, Security, CLSA Ltd, DBS Bank, HSBC Bank, Mizuho Bank, Pacific Crest Securities</i>

	<i>Beijing North Star</i>	0.461	IPO (primary)	<i>Galaxy</i>	<i>Jumei International Holding Retail</i>	204 mln USD	IPO NYSE	<i>Goldman Sachs</i>
	<i>China Blue Chemical</i>	0.341	IPO (primary)	<i>JPMorgan</i>	<i>Fuyao Glass Industry Group Co</i>	951.9 mln HKD	IPO 144 A	<i>HSBC JP Morgan UBS</i>
	<i>Focus Media</i>	0.140	IPO (secondary)	<i>Credit Suisse</i>	<i>Industrial Bank Co Ltd</i>	3.7 bln CHY	IPO, Private placement	<i>Goldman Sachs</i>
	<i>Hopson Development</i>	0.104	IPO (primary)	<i>Credit Suisse</i>	<i>Wintime Energy Co Ltd</i>	1.6 bln CHY	IPO, China A Shares	<i>Bank of America, UBS, Morgan Stanley, JP Morgan, Nomura, Credit Swiss</i>
	<i>R&F Properties</i>	0.206	IPO (primary)	<i>Morgan Stanley, JPMorgan</i>	<i>Goundong Guanghua Sci-Tech Co</i>	60.2 mln CHY	IPO, China A Shares	<i>GF Securities</i>
	<i>Beijing Jingkelong</i>	0.076	IPO (primary) Hong Kong listing	<i>UBS</i>	<i>Grand Group Investment Plc</i>	10.860 mln GBP	IPO	NA
	<i>China Merchants Bank</i>	2.41	IPO Hong Kong listing	<i>UBS, JPMorgan</i>	<i>Wowo Ltd</i>	40 mln USD	IPO	<i>Axiom Capital Management Inc</i>
Russia	JSC “Open Investments”	0.881	IPO	<i>ING, Renaissance Capital</i>	<i>Lenta Ltd Retail</i>	225 mln USD	IPO LSE	<i>JP Morgan Secur VTB Capital Plc</i>
	PJSC “Uralkali”	1	IPO Includes a GDR listing at LSE	<i>Credit Suisse, UBS</i>				
The Republic of South Africa					<i>Alexander Forbes Group Holding Diversified financial company</i>	3.477 bln ZAR	IPO Johanbln nesburg SE 431.9 mln ord.shares	<i>Deutsche Securities Inc</i>
					<i>SA Aspean Pharmacare Holdings Ltd</i>	855.7 mln ZAR	IPO	<i>Citi, UBS</i>
					<i>Nothan Platinum Ltd</i>	202.7 mln ZAR	Secondary	<i>One capital</i>
					<i>Novecs Holdings Ltd</i>	90.5 mln ZAR	IPO	<i>Investec</i>

Source: *International Financing Review – 2006, Sept. 9. – P.99–100; Ibid, 2006, Sept. 16. – P.111; Ibid, 2006, Sept.23. – P.104, 106. Bloomberg Professional. April 10, 2015.*

New features of BRICS’ stock markets. The Pre-crisis stock indexes demonstrated stability. In 2006 the annual trading range between the highest and the lowest share price at BRICS stock markets was only 7% (correlation coefficient 0.9) compared to DJIA, FTSE and NASDAQ indexes (see Table 2). Comparable correlations with the London Stock Exchange (0.85) and NASDAQ (0.68) show that indexes were changing synchronously and unidirectionally, with DJIA as a price benchmark. The markets hadn’t yet experienced volatile oil prices or other macro-economic imbalances.

Global crisis and post-crisis difficulties interrupted this trend. In 2014/2015 (YOY 03.2014/03.2015) the situation worsened: trading range reached 28% (41 vs. 13), correlation coefficient equaled 0.5 (YOY 26.06.2014/26.06.2015). In 2014 the Moscow Stock Exchange experienced two shocks: collapse in the price of oil and national currency devaluation. Statistical sampling of coefficient correlations in 2014/2015, 2006–2015, 2012–2015 (see table 2) demonstrates negative values of Indian, Russian and Brazilian indexes: markets were under competing pressures, external and internal factors were prevailing over the global benchmark. Shanghai A, a major stock index in China, showed a low level of correlation (0.1). Dynamics of BRICS stock index correlation varying from 0.4 (2006–2015) to 0.2 (2012–2015) seems to reflect decreasing significance of a traditional price benchmark.

Table 2. Financial indicators and correlation of stock indexes for leading stock exchanges and BRICS countries, 2006–2015*Indexes

	2006			2012–2015			
	Price range, %, 52 weeks	DIV (P/E)	Correlation coefficient (against DJIA**)	Price range, %, 52 weeks, 2014/2015	Correlation coefficient (against DJIA, 2014/2015**)	Correlation coefficient (against DJIA, 2006–2015**)	Correlation coefficient (against DJIA, 2012–2015**)
DJIA	11.7	0.1–2.9 (18,1)	1	13.25	1	1	1
FTSE	12.5	0.3–2.2 (25)	0.9	7.93	0.6	0.9	0.92
NASDAQ	NA	NA	0.68	16.70	0.78	0.96	0.98
Nikkei225	NA	NA	0.39	38.46	0.5	0.6	0.97
Bovespa	14	3.38 (12)	0.8	35.6	0.7	0.06	–0.6
RTS/MOEX	16	0.82–6.4 (16.9)	0.8	39.59	0.8	–0.01	–0.8
BSE Sens.	16	1.15 (20.7)	0.9	35.24	–0.2	0.8	0.9
Shanghai A	24	0.77 (23.5)	0.8	79.10	0.4	0.1	0.5
FTSE/JSE Africa TOP 40	14	1.17 (15.34)	0.9	15.62	0.7	0.9	0.9

*Stock index sampling from Bloomberg professional database, 2006–2015, Pearson correlation coefficient.

** Source: Financial Times, Jan.20, 2007. – P.10–11; <http://www.bloomberg.com/quote/TOP40:IND> 09.11.2012; http://www.jse.co.za/Home/Market_Data.aspx 12.11.2012; Factsheet: FTSE/JSE TOP 40 Index/ p-2; www.bloomberg.com/quote/indexes/:IND 17.03.2015; Bloomberg professional, 26.06.2015.

Emerging markets have much higher profitability (2–3 times), but they are unstable and show a downward trend. Thus, in 2006 Morgan Stanley Capital International (MSCI), index of emerging markets, grew by 29%, while DJIA BRIC index – by 53% (Financial Times, 2007). Russian RTS Index grew by 85% in 2005, by 70% in 2006 and only by 19% in 2007 (Vedomosty, 2007).

Annual price/earnings ratio was 12–24% (table 2), which is only slightly less than DJIA and NASDAQ coefficient (mean value 21.5 with coefficient range 5–60). It demonstrates an overall growth trend in share price, capitalization and bull speculations on emerging markets. It is characteristic that high-tech companies have higher P/E ratio compared to traditional manufacturing industries. According to NSE and BSE, among Indian stock market leaders are such IT companies as Lanco Infra – 577, Unitech – 167, HMT – 297, Cambridge Sol – 320, with Znari Inds – 1.5, Tata Steel – 7.8, Varum Ship – 5.5 being outliers (Financial Express, 2007).

Asian markets are traditionally first to respond to changes in American financial markets. They are, however, less vulnerable than in the 90s. The share of emerging markets in the global private investment capital flow increases (The Economic Times, 2007) due to stable economic development (7–12%), increasing stability and competitiveness of the emerging financial markets with a profitability 2.67 times higher than developed ones (23% vs 8,6%), growing

ambitions of companies and market capitalization. Compared to 2006, in 2007 capitalization of the Russian stock market grew by 50% from \$1 to \$1.5 trln., capitalization of Indian stock market in 2006 among other 3600 issuers on the *NSE* and *BSE* accounted for \$1.6trln. (Vedomosty, 2007; The Financial Express, 2007).

In 2007–2008 instability of interest rates on American and European financial markets had a lasting impact on the global liquidity crisis. This influence was not constant either: in 2006 correlation coefficient was 0.9 (see table 2), while during the period from 1997 to 2007 it was within the 0.2-0.3 range. It is because of the increasing stability of BRICS markets that it grew by 3.4 times. It was a natural reaction to the strengthening of the economic and financial sector of BRICS countries which has achieved greater stability and attracted global investors.

In order to hedge global liquidity crisis risks, emerging markets reviewed their investment strategies: reduced borrowings on international foreign exchange markets and diversified their currency basket (by 3 b.p.), increased investments into national markets and stimulated small and medium-sized businesses, while continuing to support major national enterprises on global trade and financial markets.

The sectoral composition of stock market is shifting towards processing and IT industries. In 2007 the share of the oil and gas sector of the Russian stock market reduced from 60% to 48.6%, while financial sector increased to 13.8%, metallurgy – to 13.7%, energy production – to 13.4%, telecommunications – 7.9% (RBC – RosBusiness Consulting, 2008).

In 2007 the global capital market experienced fundamental changes and companies of emerging countries became major global investors. Total volume of acquisitions on developed markets accounted for \$130.5 bln., companies of developed countries carried out M&A deals on emerging markets for the amount of \$128.6 bln. (RBC – RosBusiness Consulting, 2008). Companies of emerging markets now invested mostly in processing and high-tech industries of developed countries, unlike in the 90s when they acquired assets in oil and goldmining companies. In 2007 they demonstrated a particular interest in global iron and steel, automobile, aviation and “electronic” companies (*Accelor, EADS, GM*).

High tech, innovative industries are becoming a new area of confrontation between the companies from emerging economies on developed markets, as, besides management, it is probably the last area where developed economies have an advantage.

The investment strategies of BRICS countries on global capital market vary. Chinese and Russian companies carry out M&A deals in accordance with government plans and decisions. India encourages their major national companies (*Tata, Wipro, Infosys Technologies*) to form MNCs. The same aim is set for the Russian Gazprom and VTB. New phenomena in the investment confrontation between the financial center and periphery modify strategies for the protection of national assets. Developed countries prevent or limit investment flows from the UAE, South Korea and BRICS countries into high-tech sector, engineering, construction and ports. Governments of BRICS countries limit or regulate the volume of foreign investment into resources, defense-industrial sector and assets of natural monopolies. Only 30% of all M&As in BRICS countries with companies from developed markets are successful and it is not just because of the protectionist policy of governments, but also due to poor marketing and neglecting industry-specific conditions of emerging markets.

3. Discussion

Emerging markets, and primarily BRICS, have become a subject of scientific analysis and analytical assessments of market participants. The historiography includes geo-economic, macro-economic and market studies. Geo-economic and macro-economic research looks at the place and role of BRICS in the world economy (Adriana, Chirinos, 2013); internal problems of national economic development (Luo Min; Li Jing-wen, 2012); sovereign economic, political and financial risk ratio, which is reflected by credit ratings, market sensitivity (Hammoudeh, Shawkat; Sari, Ramazan; Uzunkaya, Mehmet, 2012); impact of the global financial crisis of 2008-2009 on BRICS financial systems (Radulescu, Irina Gabriela; Panait, Mirela; Voica, Catalin, 2014). Market research includes such problems as symmetrical/asymmetrical influence of global factors (S&P 500, stock and commodities markets) on BRICS finances (Mensi, Walid; Hammoudeh, Shawkat; Duc Khuong Nguyen, 2016); analysis of BRICS position and trends on international stock and bond markets (BRICS and Beyond, 2013); assessment of portfolio diversification risks (Michalkova, 2015).

4. Conclusions

Emerging markets have become increasingly attractive for direct investments from the financial center. For example, in the free economic zone of Shanghai there are about 3000 international companies, about 200 MNCs manufacture in India (*Oracle, Intel, Adobe, St Microelectronics, SAP*) and successfully compete in the high-tech and R&D sector. Other MNCs (*Texas Instruments, HP, Microsoft, GE, Philips, Motorola, Google, Cisco, Bayer, and Siemens*) attract Chinese, Indian, and Russian IT specialists to their research and manufacture.

One of the characteristics of global finance is reduction of the barriers between national and international financial markets through liberalization of currency regulations, creation of proper market infrastructure and elimination of excessive administrative barriers. Lower barriers result in lower money market rates, as demonstrated by the BRICS. During the ten-year period (1996 – 2006) China lowered rates from 12.4% to 3.3%, India – from 11% to 6%, Brazil – from 27.5% to 18% (International Financial Statistics. 2002; International Financial Statistics, 2006). It was reflected in the decline in credit rates. While in 1996 the average rate in the BRICS was 51.64%, by 2009 it went down to 16.16% (International Financial Statistics. 2002; The Economist, 2011).

Emerging markets and BRICS in particular, were a source of growth for the world economy during the 10 years before the crisis. Their demand for investment led to a 3.4 fold increase in the number of transactions on international money markets from \$82.2 bln. in 1996 to \$275.5 bln. of syndicated loans in 2006 s (International Financial Statistics. 2002; BIS, 2006). As the amount of borrowing by MNCs significantly exceeded syndication of emerging market companies, the share of the latter decreased from 16% to 11%.

From 1990 till 2005 total amount of syndicated loans in the emerging market segment reached \$927 bln. Among the major borrowers were Asian countries (53.8%), Latin American countries (13%) and Africa (7%). The number of Russian syndicated loans tended to increase over time: \$3.7 bln. in 2000; \$2.2 bln. in 2001; \$4.2 bln. in 2002 – 4,2; \$7.4 bln. in 2003; \$13.4 bln. in 2004; \$38.9 bln. in 2005 (World Bank, 2005).

Compared to the money market, the global debt and capital market is a larger and more attractive source of long-term funding. It stands to reason that developing countries demonstrated remarkable growth in this segment: during the five year period (from 2000 to

2005) their issuing volumes increased fourfold from \$216.6 bln. to \$862.8 bln. (BIS, 2006; BIS, 2011). In 2005 states issued securities in the amount of \$452.5 bln. (3% of the international market), financial institutions – 30% less – \$273.8 bln. (1.9%), corporations – \$136.6 bln. (0.9%). (IMF, 2006).

Emerging markets are experiencing a new round of changes: national banks and companies are increasing their capital base, capitalization, transparency and credit ratings. The stability of local stock markets is also increasing. This increases funding of new companies and banks on the international capital market which becomes the main source of borrowing. That is why BRICS made their debut bond issues in Eurobonds. In 2006–2007 BRICS placed corporate bonds for \$500 mln. with a maturity period of 5–7 years, coupon 150–160 b.p. over U.S. T-Bills, which was reflected by sovereign and corporate issuers' ratings.

What are the new market trends? During the global crisis and in the post-crisis period (2006–2015) Eurobonds failed to provide sufficient funding for BRICS companies. Though 99% of all issues were carried out by developed markets and in USD, there were first issues denominated in CHY and ZAR. Maturity date increased from 5 to 10 years (2006–2011 vs 2015–2025), when developed markets offer up to 20 years (2017–2046). Price of placement of developing and developed markets was comparable (98.8–100 vs. 97.9–100) and all issuers use *EuroClear u Clearstream*. However, the majority of emerging markets included in their deals either off-shore companies *Cayman Islands, British Virgin, Cyprus, or SPV*, registered in the Netherlands and Ireland. BRICS coupons, which show credit ratings, are 2-4 times higher than those of developed markets (4–13% vs. 0.75–4%).

From 2000 to 2006, funding of emerging markets doubled (from \$216 bln. to \$411 bln. a year), their credit ratings grew, profitability and liquidity increased. BRICS financial markets became attractive for MNCs, mutual and hedge funds.

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