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Financial Support versus Economic Development of Selected Regions in the EU

Vojtěch Beck
VŠB – Technical University of Ostrava
Faculty of Economics, Department of Economics
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
vojtech.beck@vsb.cz

Abstract
The aim of this paper is to conduct a general economic analysis of potential relationships and linkages in the system of allocation of public funds from European Union structural funds designed to promote the regional development and reduce economic and social disparities in NUTS II regions. The basic instrument used is a comparison method through which relationships and dependencies between the amount of allocated resources (EU funding) and the economic development of regions are monitored and verified, measured by the GDP per capita. The target areas of investigation are NUTS II regions in the Czech Republic and Slovak Republic.

Keywords: *NUTS II region, GDP per capita, European Union subsidies*

JEL codes: *R11, F36, O47*

1. Introduction

Recently, there have been more and more discussions taking place in the professional and lay public concerning the problems associated with utilising funds from EU structural funds, along with a relatively high risk of under spending all funds that had been approved for the Czech Republic in the programming period 2007 - 2013, the European Commission highlights the greatest shortcomings especially in the field of public contracts and control mechanisms set. Many of the audit findings question the transparency of the project selection process for obtaining support from the public funds, and refer to the opacity of tenders for the project implementation. The European Commission has suspended the flow of subsidies from European funds in the Czech Republic and established the deadline of June this year to eliminate shortcomings in the management and utilisation of the European money in the Czech Republic (Journal of Public Administration, 2012).

The topicality of the theme of this paper consists, first, in mapping the continuous utilisation of funds from the European Union for development projects in various NUTS II regions and also in analysing the economic development of these regions during the period when the funds in the form of subsidies from the EU flowed into these regions, as well as in offering a comparison of the utilization of funds within the EU subsidies and the economic development of the NUTS II regions in the Czech Republic and Slovak Republic.

For the programming period 2007 – 2013, the regional and structural policy of the EU declares meeting three fundamental objectives - Convergence, the European territorial cooperation, the Regional competitiveness and employment (Kučerová, 2010). To what extent the convergence targets in the NUTS II regions have been met, the reader will learn in the practical part of this paper.

2. Problem formulation

The European Union and its individual regions are characterized by a relatively high differentiation in the economic and social maturity. If we focus on the NUTS II regions it can be concluded that the most developed regions according to indicators of PPS per capita include the following regions: Luxembourg (62 500), Rég. Bruxelles/Brussels Gewest (52 500), Hamburg (44 100). The Prague Region (41 200) can also be ranked among the most developed EU regions (Eurostat, 2012).

When we used the real GDP growth rate as an indicator of comparison, then among the regions that showed the highest economic growth, we ranked the regions of Groningen (10.6%), Sud-Est (9.6%), Eastern Slovakia (9.4%), and Central Slovakia (9.2%). Central Bohemia (7.1%) High growth rates were recorded in the region Central Bohemia (Eurostat, 2012).

The basic problem is defined by an effort to find links between the volume of finance received from the EU funds by the NUTS II regions in the Czech Republic and Slovakia as well as the development of the economic growth in the regions over the period 2005 - 2009.

3. Problem solution

First, we will deal with the analysis of the economic level of the individual NUTS II regions in the Czech Republic. From Tables 1 and 2 it is evident that in the monitored period from 2005 to 2009 the highest GDP (PPP per capita) was achieved by the Prague Region. The other seven regions lag distinctly behind Prague, while the highest value of GDP per capita is evidenced by the Central Bohemian Region, on the other hand, the Central Moravian Region showed the lowest GDP per capita in the monitored period.

Between 2005-2009 there was a decline in GDP per capita in all NUTS II regions as compared with the Prague Region, except for the South-East Region, which shows a continuity in the years of the GDP growth per capita with the Prague Region, and in addition, the Central Moravian Region reached a higher GDP per capita at the end of the observed period than in 2005.

Table 1: Regional GDP (PPS per capita) in NUTS II regions – Czech Republic

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Prague R.	26 400	29 300	31 000	33 300	35 300	37 400	39 900	42 700	43 700	41 200
Central Bohemian R.	12 900	13 600	14 200	14 800	15 800	16 200	17 800	18 600	18 700	17 300
South-West R.	12 600	13 300	13 800	14 600	15 800	16 500	17 500	17 800	17 100	16 700
North-West R.	11 300	11 800	12 400	13 200	13 900	14 400	15 100	15 700	15 700	15 700
North-East R.	12 200	12 900	13 200	13 500	14 300	15 000	15 800	16 400	16 400	15 700
South-East R.	12 100	13 100	13 500	14 300	15 000	15 700	16 800	17 800	18 200	17 500
Central Moravian R.	11 000	11 700	12 000	12 600	13 300	13 800	14 700	15 500	16 100	15 500
Moravian-Silesian R.	10 600	11 300	11 700	12 300	13 800	15 100	15 800	16 700	17 200	15 900

Source: Regional gross domestic product (PPS per capita), by NUTS 2 regions [cit. 2012-03-26]. Available: http://epp.eurostat.ec.europa.eu

Table 2: Expression of the regional GDP (PPS per capita) in NUTS II regions as compared with the Prague Region

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Prague R.	100	100	100	100	100	100	100	100	100	100
Central Bohemian R.	49	46	46	44	45	43	45	44	43	42
South-West R.	48	45	45	44	45	44	44	42	39	41
North-West R.	43	40	40	40	39	39	38	37	36	38
North-East R.	46	44	43	41	41	40	40	38	38	38
South-East R.	46	45	44	43	42	42	42	42	42	42
Central Moravian R.	42	40	39	38	38	37	37	36	37	38
Moravian-Silesian R.	40	39	38	37	39	40	40	39	39	39

Source: Own processing and calculations

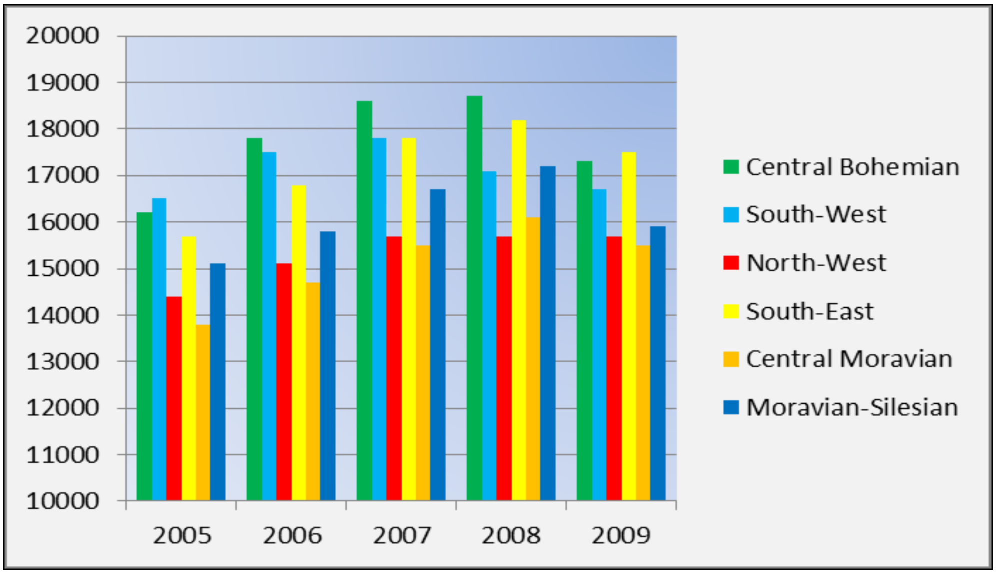
Table 3: Expression of the regional GDP (PPS per capita) in NUTS II regions as compared with the annual average without the Prague Region

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Central Bohemian R.	109	109	109	109	109	106	110	110	110	106
South-West R.	107	106	106	107	109	108	108	105	100	102
North-West R.	96	94	96	97	95	94	93	93	92	96
North-East R.	103	103	102	99	98	98	97	97	96	96
South-East R.	102	105	104	105	103	103	104	105	107	107
Central Moravian R.	93	93	93	93	91	91	91	92	94	95
Moravian-Silesian R.	90	90	90	90	95	99	97	99	101	97

Source: Own processing and calculations

If we average the GDP per capita indicator in each region so that we remove this average from the Prague Region, then we can conclude that over the average in the period 2005 - 2009 were the Central Bohemian Region, the South-West Region and the South-East Region. The Moravian-Silesian Region oscillated around the average rate and the Central Moravian Region appeared as the poorest region of the Czech Republic, however, that region recorded the highest increase in GDP per capita in the years 2005 – 2009.

Figure 1: Regional GDP (PPS per capita) in NUTS II regions – Czech Republic in the years 2005 – 2009



Source: Regional gross domestic product (PPS per capita), by NUTS 2 regions [cit. 2012-03-26]. Available: http://epp.eurostat.ec.europa.eu

If we evaluate the rate of the economic growth in the NUTS II regions, we can say that in the years 2000 - 2009 the highest average economic growth (GDP in PPS per capita) was showed by the Central Bohemian Region (5.6%), followed by the Prague Region (4, 4%), the South-East Region (3.6%) and the Central Moravian Region (3.4%). The slowest growing regions were the North-West Region (1.7%) and the Moravian-Silesian Region (2.5%).

In the years 2005 – 2009 the highest growth is shown by the Central Bohemian Region (6.3%), the Prague Region (4.6%), the South-East Region (3.3%), and the Central Moravian Region (3.1%). The largest decline was recorded by the South-West Region (0.9%), and then the South-East Region grew the least (0.9%) along with the Moravian-Silesian Region (1.2%) (Eurostat, 2012).

Table 4: Growth rate of the regional GDP (PPS per capita) in NUTS II regions – Czech Republic

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Prague R.	4,3	6,0	1,0	3,1	3,8	6,8	7,3	9,5	2,4	-0,7
Central Bohemian R.	5,3	3,0	7,1	2,4	6,5	6,4	14,1	7,7	7,1	-3,6
South-West R.	4,0	1,4	2,0	3,3	7,1	6,3	7,6	1,5	-1,7	-3,7
North-West R.	2,0	-2,0	3,3	5,0	1,2	4,6	5,4	2,1	2,0	-6,1
North-East R.	4,7	0,5	2,6	0,9	4,8	7,5	6,0	4,9	3,1	-6,8
South-East R.	3,9	3,7	2,2	3,3	3,5	6,4	8,5	5,8	5,2	-6,2
Central Moravian R.	3,4	1,1	3,0	2,4	5,5	6,0	7,4	5,6	5,9	-6,6
Moravian-Silesian R.	1,8	1,5	1,2	3,3	4,3	7,7	4,2	4,7	3,3	-7,6

Source: Regional gross domestic product (PPS per capita), by NUTS 2 regions [cit. 2012-03-26]. Available: http://epp.eurostat.ec.europa.eu

Table 5: Overview of the utilization of the EU public funds in NUTS II regions – Czech Republic (mln CZK)

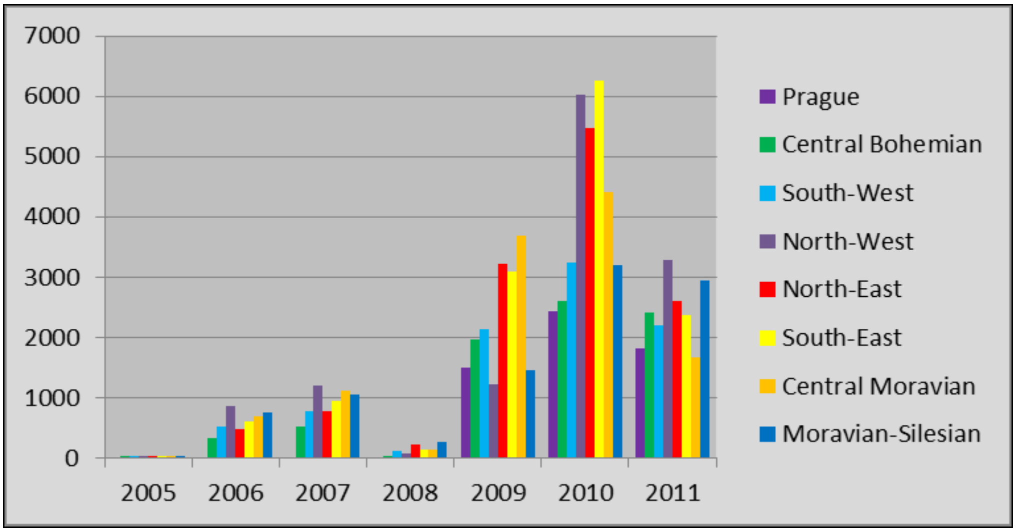
Region	2005	2006	2007	2008	2009	2010	2011
Prague R.	-	-	-	-	1491,2	2441,5	1822,8
Central Bohemian R.	9,4	327,3	513,5	35,8	1968,3	2598	2416
South-West R.	19,8	514,8	785,3	121,5	2144,8	3245,7	2210,0
North-West R.	27,4	870,1	1 209,3	67,1	1219,9	6030,2	3275,8
North-East R.	23,3	486,6	784,3	229,3	3210,7	5469,9	2601,5
South-East R.	14,1	611,2	941,9	141,3	3085,3	6261,0	2365,9
Central Moravian R.	9,1	696,2	1 117,1	137,2	3697,6	4419,5	1671,6
Moravian-Silesian R.	18,3	755,8	1 060,3	259,6	1457,2	3196,7	2953,6

Source: Own processing, based on data from the Ministry for Regional Development of the Czech Republic- Evaluation of the Joint Regional Operational Programme, Monitoring Report on the Utilization of the Structural Funds, Cohesion Fund and national funds in the programming period 2007 - 2013

The data in Table 5 in the years 2004 to 2007 includes the utilised state funds from the EU within the Joint Regional Operational Programme. The project implementers were paid within a total operating program the amount of 12.3 billion CZK for the period 2004 - 2007. Most paid from EU funds was the Moravian-Silesian Region (16%) the Usti Region (12%), the Zlín Region and the South Moravian Region (9%). In terms of indicators of completed projects it can be stated that a total of 2 801 projects implemented were most in the Moravian-Silesian Region (13%), the Olomouc Region (10%), the South-Moravian Region, and the South-Bohemian Region (9%).

In the years 2008 - 2011 the data is given, which proceeds from the statistics of the Ministry for Regional Development of the Czech Republic in terms of the utilization of the regional operational programs in the NUTS II regions. In the case of the Prague Region data is given, which relates to the utilization of funds under the operational programs for Prague under the Regional competitiveness and employment. All data given are funds submitted to the European Commission for certification.

Figure 2: Overview of the utilization of the EU public funds in NUTS II regions – Czech Republic (mln CZK)



Source: Own processing, based on data from the Ministry for Regional Development of the Czech Republic - Evaluation of the Joint Regional Operational Programme, Monitoring Report on the Utilization of the Structural Funds, Cohesion Fund and national funds in the programming period 2007 - 2013

Table 6: Regional GDP (PPS per capita) in NUTS II regions – Slovak Republic

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bratislava R.	20700	22800	25000	25800	27900	32900	34900	40100	41900	41800
Western Slovak R.	9000	9600	10100	10800	11700	12800	14800	16500	17400	16100
Central Slovak R.	7900	8600	9300	9500	10100	10400	11600	13400	14800	13600
Eastern Slovak R.	7200	7900	8400	8600	9100	9700	10400	11600	12800	11500

Source: Regional gross domestic product (PPS per capita), by NUTS 2 regions [cit. 2012-03-26]. Available: http://epp.eurostat.ec.europa.eu

Table 7: Regional GDP (PPS per capita) in NUTS II regions as compare with the Bratislava Region

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bratislava R.	100	100	100	100	100	100	100	100	100	100
Western Slovak R.	43	42	40	42	42	39	42	41	42	39
Central Slovak R.	38	38	37	37	36	32	33	33	35	33
Eastern Slovak R.	35	35	34	33	33	29	30	29	31	28

Source: Own processing and calculations

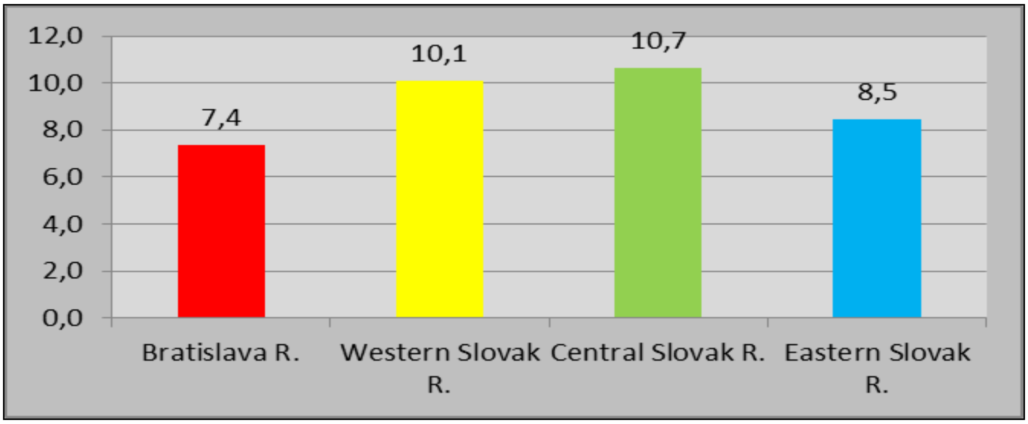
Table 8: Regional GDP (PPS per capita) in NUTS II regions in comparison with the annual average without the Bratislava Region

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Western Slovak R.	112	110	109	112	114	117	121	119	116	117
Central Slovak R.	98	99	100	99	98	95	95	97	99	99
Eastern Slovak R.	90	91	91	89	88	88	85	84	85	84

Source: Own processing and calculations

During the period 2005-2009 the highest values of indicators of GDP (PPP per capita) was reached by the Bratislava Region, the West Slovak Region came second, further the Central Slovak Region, which as the region recorded a growth of GDP per capita as compared with the Bratislava Region in the given period. The poorest Slovak region was the Eastern Slovak Region, which does not achieve one third of GDP per capita of the Bratislava Region. If we average the GDP per capita, along with removing the average from the Bratislava Region, then the results obtained will show us that the Western Slovak Region was long above this average, the Central Slovak Region oscillates at the average rate and in the period 2005-2009, it recorded the average increase in the GDP per capita, while the Eastern Slovak Region has a declining GDP per capita.

Figure 3: Average growth rate of the GDP (PPS per capita) in NUTS II regions– Slovak Republic in the years 2005 - 2008



Source: Regional gross domestic product (PPS per capita), by NUTS 2 regions [cit. 2012-03-26]. Available: http://epp.eurostat.ec.europa.eu

Table 9: Overview of the utilization of the EU public funds in NUTS II regions – Slovak Republic (mln €)

<table>
<tr><th>Region</th><th>2005</th><th>2006</th><th>2007</th><th>2008</th><th>2009</th><th>2010</th></tr>
<tr><td>Bratislava R.</td><td>0,5</td><td>13,7</td><td>19,2</td><td>0,3</td><td>4,6</td><td>8,9</td></tr>
<tr><td>Western Slovak R.</td><td rowspan="3">6,8</td><td rowspan="3">223,9</td><td rowspan="3">333,4</td><td rowspan="3">3,9</td><td rowspan="3">72,4</td><td rowspan="3">202,9</td></tr>
<tr><td>Central Slovak R.</td></tr>
<tr><td>Eastern Slovak R.</td></tr>
</table>

Source: http://www.opbk.sk , http://www.ropka.sk, http://www.nsrr.sk [cit.2012-04-23]

The data in Table 9 in 2005-2007 includes the utilization of state funds from the EU within the JPD NUTS II - Bratislava Objective 2 and the Operational Programme Basic Infrastructure cumulatively for the three NUTS II regions. In the years 2008-2010 data is given that shows the utilization of funds from the ERDF under the Operational Programme Bratislava Region and the Regional Operational Programme cumulatively for the three NUTS II regions. All data given is submitted to the European Commission for certification.

4. Conclusion

The basic objective of this paper was to analyse the economic development of regions at the NUTS II level in the Czech Republic and Slovak Republic and to discover a specific connection or relation between the public funds expended from the European Union into these regions in the form of subsidies and the real economic advancement of those regions, or whether the supply of funds from the EU into regions corresponds to the increasing economic development of regions, i.e. the increasing GDP per capita and as a result the convergence objective is fulfilled in accordance with the strategic objectives of the economic and social cohesion of the European Union.

In the Czech Republic through the analysis it had been established that even though in 2005-2009 the cohesion region was a recipient of the EU subsidies, still, the difference in the economic development between regions did not diminish, respectively, the difference in the economic development of Prague and other regions deepened - as opposed to Prague there was a rise in 2005 only in the Central Moravian Region, which is very positive, since this region exhibits absolutely the lowest GDP per capita from all regions. In terms of GDP per capita comparisons, in each region, with annual averages for all regions outside of Prague it can be stated that in comparison between 2005 and 2009, the largest convergence had taken place in the Central Moravian Region and the South-East Region. The largest decline in GDP per capita occurred in the South-West Region.

In terms of the average rate of the regional economic growth in the years 2005 - 2009 the Central Bohemian Region surpassed the Prague Region and a significant growth was experienced by the Southeast Region and the Central Moravian Region. Conversely, the biggest drop was recorded in the South-West Region, as a well as a relatively low level of the economic growth was demonstrated by the North-West

Region and the Moravian-Silesian Region. When taking into account the total utilisation of EU funds in 2005-2009, most subsidies had been utilized by South-East, North-East, North-West and Central Moravian Regions. The lowest amount of funds had been yet exhausted by the Central Bohemian Region.

The analysis of the data for Slovakia in the period 2005-2008 shows that in terms of the economic development, measured by GDP per capita, the Bratislava Region is the dominant region, the Western Slovak Region in 2008 reached 42% of GDP per capita of the Bratislava Region, the Central Slovak Region comes third and the least developed region is the Eastern Slovak Region. In terms of the average regional growth rate of GDP per capita in 2005-2008 the highest growth was achieved by the Central Slovak Region, the second largest growth in the regions was showed by the Western Slovak Region, the Eastern Slovak Region came third and the Bratislava Region was the fourth. Based on the collected data it can be stated that while differences in the Czech Republic among the regions cannot be fully reduced, in the Slovak Republic, the differences between the regions are not increasing, and vice versa all NUTS II regions achieved a higher average growth rate of GDP per capita than the dominant Bratislava Region.

Within the mutual comparison of the Czech Republic and Slovakia in terms of utilizing European funds it can be stated that any comparison is considerably vitiated by the lack of the uniform management system for utilising funds from the EU. Namely we are dealing here with the divergence structure of operational programs, the non-uniformity in the methodology as for demonstrating indicators in utilization statistics, for instance, Slovakia uses a regional program and operational programme and the Czech Republic has a special program dedicated for each operating region NUTS II separately.

In conclusion, in the Czech Republic one of the most promising regions based on the assessment of both criteria monitored in 2005-2009 – the economic development and the amount of funds utilised from the EU – is the South East Region and the Central Moravian Region. On the contrary, under the Convergence regions in particular the South-West Region and Moravian-Silesian Region need to strengthen. On the territory of Slovakia, all three regions of Western Slovakia, Central Slovakia and Eastern Slovakia start showing promising signs of development. It should be noted that a key player in the development of national economies and the economy of the European Union as a whole are, and will be the individual regions, which is necessary to bear in mind not only in the current programming period 2007-2013, but particularly in the subsequent programming period in accordance with the adopted strategy Europe 2020, which clearly points to the future of the EU financial support for projects focusing on education, the support of research and development, increasing employment and the elimination of social exclusion and poverty.

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How to Achieve a Common European Energy Policy?

Ján Bocora
University of Economics in Bratislava
Faculty of International Relations
Dolnozemská cesta 1/b, 852 35 Bratislava, Slovak Republic
jan.bocora@euba.sk

Abstract
The aim of this paper is to analyze the factors, risks and opportunities, which lead to the development of a common European energy policy. We will focus on the main issues in the development of the European energy affairs, which influenced the creation of a common strategy for a more coherent energy policy and more sustainable energy security of the 27 member states. The emphasis will be put on the analysis of the liberalization of gas and electricity markets and new regional energy infrastructure initiatives, which support the idea of a more integrated internal energy market, as well as on the differences in energy mix and the dependence on foreign energy imports of individual countries, which present the most crucial issues hindering a common approach of the European countries in the energy affairs.

Keywords: *Energy policy, energy security, energy mix, liberalization, dependence*

JEL codes: *O52, P48, Q43*

1. The way to a common energy policy in the 21st century

Sustainability of economic growth and development, competitiveness, greenhouse gas emissions, security of external and internal supply of energy, growing import dependence and the process of deepening the integration efforts into the area of an effective internal energy market are the most critical issues when talking about a common approach for identifying the European energy policy. The reason for worry about the development of the energy situation in the EU is the fact that the 27 member states consume much more energy that they could produce from their own resources. Thus, to secure stable and affordable supplies of energy and to foster internal cooperation and coordination of initiatives among regions and states, the EU needs to build a more coherent and "common" energy policy. Despite huge differences between the member states regarding their energy mix or external relations with suppliers, integration of energy policies needs to be improved. A truly common energy policy consisting of liberalized energy markets, regional and interregional infrastructure initiatives or renewable energy programmes can save billions of Euros and create hundreds of thousands of new jobs.

Since the completion of the Single European Market in 1992 the European energy policy has been almost entirely focused on strengthening competition and fostering liberalization of the highly concentrated energy market, which was dominated by giant private and state owned companies. Rising prices of energy, low investments to new power generation facilities or infrastructure and slow progress in the implementation of the European legislation have led the European Commission to develop a new framework for energy policy. Along with the internal factors, external issues such as rising global demand for oil and commitments for lowering global greenhouse gas emissions forced the decision-makers to introduce a new concept of European energy policy and security for the 21st century. The document *Green Paper on Security of Energy Supply*, which has been introduced by the European Commission in year 2000, brought the identification of three main energy concerns for the EU for the upcoming years (European Commission [online], 2001):

- Growing dependence on energy imports;
- Limited scope of influence of the EU in energy producing countries;
- Difficulties connected with meeting the commitments of the Kyoto Protocol.

These documents were dealing mostly with the external factors and global risks, which influenced the sustainability of European economic growth. But first of all, Europe needed a fully functioning internal energy market with strong mechanisms for sustaining low prices and high investments. This was only achievable by fostering competition. But the national champions did not want to allow the opening of the markets and lobbied for a slower implementation of the legislative. The European Council of Lisbon in 2000 also stressed the need to accelerate competition. The Lisbon agenda promoted liberalisation and competition in a general way, introducing a programme to support a wide range of economic activities. Energy policy was one of the main areas, where competition stood at a low degree, so the decision-makers presented the idea of networks ownership unbundling (Helm, 2007). The idea of ownership unbundling of transmission networks was imposed to restructure the generation and production markets, introduce new regulation, open the retail market and allow the presence of third party access in distribution and transmission. But there are also fixed cost elements connected to the restructuring of the assets and the establishment of regulatory structures, which only very few were ready to accept. Therefore unbundling was likely to be cheaper when also other restructurings would be taking place, which did not happen (Pollitt, 2007). So in 2003, in response to the negative development, aiming at completing the creation of an internal gas and electricity market, the Second Electricity and Gas Directive was adopted. It should have given a new impetus to unbundle the rigid structures in most of the European countries, requiring national gas and electricity markets to be liberalized by July 2004 for large purchasers of energy and by July 2007 for all consumers. However, until 2005 the market opening reached only 66% for electricity and 57% for gas (Andoura, Hancher, van der Woude, 2010). The implementation of the second Electricity and Gas Directives remained incomplete in many member states.

Further on, the discussions about the sustainability of the European energy situation proceeded and in 2005 at the Hampton Court Summit a new paper on energy policy was introduced, which was published as the *Green Paper – A European strategy for sustainable, competitive and secure energy* in March 2006. This concept was based on three objectives that should be achieved by building a stronger and more competitive internal energy market and by strengthening the international energy dialogue with main EU energy partners (European Commission [online], 2006). The

European Commission pushed forward six priority areas (Checchi, Behrens, Egenhofer, 2009):

- Immediate completion of the European internal electricity and gas market and the completion of the physical networks and energy grids;
- Building solidarity among member states, notably in cases of supply disruptions on external borders of the Union;
- Creating a more sustainable, efficient and diverse energy mix;
- Choosing a more integrated climate change approach;
- Creating a strategic energy technology plan;
- Building a stronger common European external energy policy.

These energy priorities were confirmed by all EU members at the summit of the European Council in March 2007 in the Energy Action Plan for the period of 2007-2009, which was based on the communication of the Commission - An energy policy for Europe of January 2007. The Action Plan sets out the way for tackling the three cornerstones of EU´s energy policy – climate change, energy security and a truly liberalised electricity and gas market as preconditions for enhancing the security of supply and increasing business competitiveness in the EU (Council of the European Union [online], 2007). In the same time, the Commission published its first *Strategic Energy Review*, which reviewed a number of the proposals outlined in the Green Paper of 2006. The main proposals included new objectives to reduce greenhouse gas emissions, increasing the use of renewable energy and biofuels, ways to improve the functioning of the internal electricity and gas market and strengthening the internal Emissions Trading Scheme, improving energy efficiency and increasing spending on energy related research (UK Department for Business Innovation and Skills [online], 2009). The report concluded that the EU member states and especially their consumers and businesses, were losing competitiveness mostly because of inefficient gas and electricity markets, high energy prices and low investments in energy research, new energy generation capacities and infrastructure. The state of the European energy affairs led the European Commission to carry out a broad sectoral review of the energy policy and especially the liberalization process and in 2009 it proposed the Third Energy Internal Market package, which provides a new regulatory framework for the promotion of the internal energy markets. The effort to deepen the integration of the energy markets has been also confirmed in the European primary law by the Treaty of Lisbon, which created a separate and specific chapter on current energy issues and set out four main aims of the EU’s energy policy for the coming decade (Braun, 2011):

- Ensure the functioning of the energy market;
- Ensure the security of supply in the Union;
- Promote energy efficiency and energy saving and develop new and renewable forms of energy;
- Promote the interconnection of energy networks.

The principles of the European energy policy are very ambitious and could present a new era in the development of the European integration. But the common energy policy is marked with an inconsistent process of setting goals and objectives on a regional basis, which are hardly to implement in local conditions. In the last 10 years the way to a truly common energy policy was more about pursuing national priorities than common European goals and values. Each member state has a different energy mix, which is based not on European preferences, but on domestic political and economic pressures that hinder the development of clean and efficient sources of energy. Cheap is mostly superior to clean and thus it is even more difficult for the EU to keep the international and regional commitments for reducing green gas emissions. A liberalized and functioning internal market is mostly based on growing emphasis for new investment, which are not coordinated by the EU, but performed by the individual members, serving their best needs. Other point is that the EU does not have a common external approach for dealing with main suppliers of energy. The overall situation is best expressed by Kevin Rosner, who stated that no state was or is willing to being dictated by the EU about the form and type of energy consumed or produced on a national level. National governments keep their right to determine their own energy mix based on local access to resources, individually determined and developed power grids and energy generating facilities and national decisions taken on the suitability of one type of energy source over another (Rosner, 2009).

2. Fragmented European energy policy and the way ahead

The main problems the EU is facing in regard to a common European energy policy are the structural deficiencies in the market liberalisation process and the external dimension of the policy implementation. Andoura, Hancher and Van Der Woude identified three main reasons for the fragmentation of the European energy scene (Andoura, Hancher, van der Woude, 2010):

1. Lack of compliance with internal market rules. Member states, despite their commitments to follow the rules and recommendations of the Commission in the area of the single market, are not legally obliged to implement the norms concerning energy policy. Therefore, the EU as a whole lacks the desirable progress in implementing also the Third Energy Internal Market Package, because most of the member states failed to correctly implement the previous two packages.

2. Weak policy tools. The EU does not have the authority to set guidelines for energy policy in areas that would be necessary to improve the overall situation on the energy market (e.g. in research and development activities, investments in new networks, taxation discouraging certain activities and promoting sustainable alternatives etc.). Important policy issues, such as the security of supply or the reaching of the clean energy targets are mainly of a declaratory nature.

3. Weak external dimension of the EU´s energy policy. The EU has a very weak representation on the international energy scene, despite the fact that

the EU is one of the largest importers of energy resources. Its belief in market forces is not shared at all by major producers such as Russian federation, as well as by consumers like China or India. Moreover, the fact that Europe has not developed a comprehensive common energy policy is also an obstacle to the development of a common foreign policy.

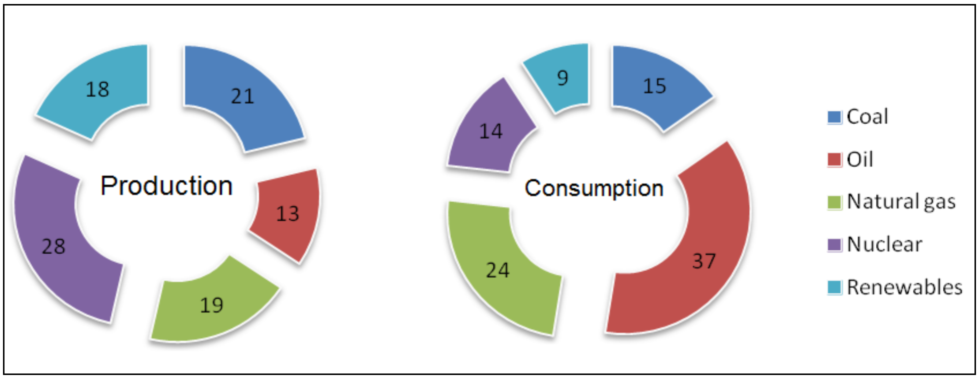
Energy presented the impetus for the European integration in the 1950´s and it could be today as well. Therefore, as noted by John Bruton, the former EU´s Ambassador to the US, to avoid the biggest failure in European integration over the last 50 years, the member states need to adopt a common energy strategy, not only to boost economic growth, but also to present Europe as a strong and flexible unit, able to negotiate with the largest market players and especially with the Russian federation, as the single largest supplier of energy to the EU (Bloomberg Businessweek [online], 2011).

The overall process of integration in the energy sector has been influenced by several crucial factors. In the next part we will take a look on some positive aspects of the integration process, such as the implementation of the third package for electricity and gas market or the regional infrastructure initiatives in Europe, which help to increase diversification of energy sources and suppliers as well as build solidarity among member states in case of another energy crisis. We will also examine the risks and costs of these initiatives to present a more complex overview.

3. Liberalization, infrastructure, cooperation

European energy policy, based on the legal basis in the Lisbon Treaty, is understood as a shared ownership of the EU institutions and the member states, a compromise between national sovereignty over national resources and energy taxation and a shared Union competence for several other issues (Braun, 2011). That means member states have a full responsibility over the composition of their own energy mix and the internal preference for energy generation. Thus, on the one hand, the EU is trying to develop a common strategy to increase the use of renewable energy, secure the external supplies of main energy resources like oil and natural gas and fight climate change, whereas, on the other hand, it does not have the competence to influence energy production, consumption and imports of its own member states. Thus, considering the slow progress in the integration of the energy markets, we can identify two crucial factors that negatively influence the overall process of creating a common energy policy. First of all, we need to consider the huge differences in the energy mix of each country. Generally, the EU produces more than the half of its energy needs from fossil fuels, but these sources make a three quarters share of the overall consumption. (see Figure 1).

Figure 1: Share of each fuel to total primary energy production and to total gross inland consumption of energy in the EU, 2009 (%)



Source: Eurostat (2011). Eurostat Pocketbooks. Energy, transport and environment indicators.

The European energy mix is shaped by huge differences among the member states. For example France produces more than 80 % of its own energy from nuclear, whereas countries like Austria or Ireland have banned nuclear facilities. On the other hand, Poland generates most of its electricity from coal fired power plants, whilst Germany is promoting large renewable energy projects. This development does not allow the European institutions to set a policy that would be easily implemented and also beneficial for all member states. Therefore, the only thing the EU can do is to bring new mechanisms for market liberalization to allow secure, stable and cheaper flows of energy between the 27 member states.

The other factor is the growing dependence of the EU on foreign sources. The member states do not have enough own resources to satisfy the demand for energy, therefore, it needs to be imported. The EU gets more than 84 % of its oil needs and 62 % of natural gas from outside its borders. The rising dependence creates not only economic tensions from high prices of energy, but also political confrontation with mayor suppliers, especially with Russia. Belgium, Bulgaria, Greece, Spain, Cyprus, Finland, Slovak republic or Slovenia need to import almost all of their oil and natural gas needs from other regions. On the other hand, only Denmark and Netherlands are self-sufficient in natural gas production and only Denmark also in oil production. The other point is, where do these resources come from? Middle and East European countries are almost entirely dependent on Russian imports, western European states depend mostly on Norway and the Persian Gulf, while southern Europe imports oil and gas from north Africa. The EU speaks about a general diversification of suppliers and lowering dependence on several countries. But mostly the geographic proximity and the state of the infrastructure prevail over common goals. Therefore, the EU should focus on other internal affairs such as the final stage of the liberalization of electricity and gas market or new regional infrastructural projects for more stable transfer of energy among the member states.

Liberalization and cooperation have always been the main instruments in the process of European integration. Despite differences between member states in the way they produce and use the energy, opening the markets and enhancing competition should be in the interest of all. In March 2009, this assumption was confirmed with an agreement on the third energy package. The main aim of this new legislation is to strengthen consumer rights at the expense of full ownership unbundling. The new liberalization package consists of two directives for the internal electricity and gas markets, two regulations on conditions for access to these markets and the establishment of the Agency for the Cooperation of Energy Regulators. The third package will also establish the European Network of Transmission System Operators for Electricity and Gas, which will be responsible for the implementation of common security standards and facilitation of cross-border trade by creating equal operating conditions. On the other hand, national governments will be responsible for protecting vulnerable energy consumers and taking appropriate measures to address energy poverty (The Institute of International and European Affairs [online], 2009).

During the implementation phase, member states will have to choose between three options for separating supply and production activities from gas and electricity transmission networks and thus allow greater competition on the supply side of the market (European Parliament [online], 2009):

- Full ownership unbundling - it will force integrated energy companies to sell off their gas and electricity grids thus establishing separate transmission system operators, which handle all network operations;
- The independent system operator (ISO) – this model allows the energy companies to retain the ownership of their transmission networks, but they have to shift the operation of their transmission networks to a separate body - the independent system operator;
- The independent transmission operator (ITO) - preserves integrated supply and transmission in a company, but forces it to obey certain rules to ensure so that these two sections of the company operate independently. This is possible through establishing a “neutral supervisory body” or a compliance programme.

The relevance of this package lies also in strengthening the rights of the consumers, who suffered mostly under rising prices of energy products and weak opportunities for choosing alternative energy service providers. After the closure of the implementation process in all member states, consumers around Europe will have the possibility to (European Parliament [online], 2009):

- Change their gas and electricity suppliers within three weeks and free of charge;
- Receive all relevant gas and electricity consumption data;
- Safeguard efficient treatment of complaints and disputes through an energy ombudsman or a consumer body;
- Be compensated if service quality levels are not met, etc.

The key elements of the third package cover requirements for more effective unbundling, enhancing powers and independence of national regulators, the need to coordinate regulatory action at EU level and extensive transparency requirements as well as a proposal to restrict third country control of local transmission networks (UK Department for Business Innovation and Skills [online], 2009). It will be a difficult task for all 27 member states to implement the necessary legislation due to local specifics of the internal energy markets. According to studies by Baarsma, Mulder and Shestalova, who analyzed the cost and benefit matrix, enhancing market competition may also facilitate further generation of mergers of vertically unbundled transmission assets, which provide financial resources for horizontal integration. Unbundling may also create information problems between electricity generators and transmitters in the absence of adequate investment in better information systems. Implementing these regulative may also create significant costs connected to the contract response of foreign suppliers. And if the EU will not put enough attention to the deregulation process, foreign companies may easily buy strategic assets in the newly created structures (Pollitt, 2007).

The completion of the internal energy market can bring huge benefits in form of higher economic growth and employment. According to the European Commission, the effects of a fully liberalized gas and electricity market can add 0,6 – 0,8 % to EU´s GDP in the next 5 to 10 years and create new 500 000 new jobs. But to achieve these benefits, investment of over 1 trillion Euro will be needed by 2020 to replace old power plants, modernise and adapt energy infrastructure and to create stable demand for low carbon energy (European Commission [online], 2011). But the EUs budget for the period of 2014-2020 will only make up 200 billion Euro for new infrastructure investment (Euractiv [online], 2011), which is far behind the overall requirements. On the other hand, the EU and its member states need to tackle the problem of growing prices of energy, which present a great hindrance to the overall economic competitiveness of the Union. Electricity prices are of particular importance for international competitiveness, as electricity usually represents a significant proportion of total costs faced by industrial and service providing businesses. But between the first half of 2010 and the first half of 2011 the price of electricity and natural gas for households in the EU rose by 6,9 % and for industrial consumers in by 5 % for electricity and 12,6 % for natural gas (Eurostat [online], 2011), which is largely over the average inflation index of 2,7 % (Inflation.eu [online], 2012). Therefore, price stability, affordable energy generation and transmission and incentives for new investment should become the core elements of a common European energy policy, on one hand to avoid market discrimination and on the other hand to foster competitiveness, innovation and job creation.

Liberalization of the energy market is one of the main components leading to the completion of a common energy policy. The other way to achieve a joint position in the issue of energy security policy is through regional initiatives focused on inter-state energy generation and transmission facilities. One of the most inspiring efforts is the project of the North-South energy corridor, which connects the countries of middle Europe through mutual infrastructural projects. The aim is to create a fully functional and operational regional market for electricity and gas, something like a small version of the future trans-European energy market. The North-South initiative is divided into two main components – electricity and natural gas. The aim of the electricity interconnection is to strengthen the regional networks in North-South and East-West flow directions, support an appropriate balancing system and solve the rising infrastructure gaps, especially those related to increasing generation from renewable energy sources. The objective of the gas component is to enhance security of supply and promote market integration through diversification of supplies, as well as through internal market actions (European Commission [online], 2011).

The joint initiative, first of its kind in the new member states, started in February 2010, when the ministers of the Visegrad region introduced a plan to interlink the LNG terminals in Poland and Croatia, and thus strengthen the security of supply in the region (Ministerstvo hospodárstva SR [online], 2011). The interconnection will mostly consist of existing networks, which will be linked together with several new pipelines and networks. The total length of the completed network will reach more than 2300 km and the project will require investments of 3,8 billion Euro (Rau, 2011). The North-South Interconnection was set up with the aim of promoting the implementation of energy infrastructure projects and improving security of supply and market development in the Visegrad region in cooperation with Austria, Croatia and possibly also Romania and Bulgaria. To achieve this goals new electricity networks must be upgraded and modernised in order to meet increasing electricity flows due to a major shift in the overall energy chain and energy mix. The new natural gas corridor requires the reconstruction of the LNG Terminal in Swinoujscie in Poland with a regasification capacity of 5 billion cubic metres a year of natural gas with further extension to 7,5 billion in the following years, completion of the LNG terminal in Krk in Croatia with a capacity of 4 – 6 billion cubic metres a year and building of new interconnections between Poland, Slovakia, Czech republic, Austria, Hungary and the Adriatic and Black sea (European Commission [online], 2011). To conclude, this project presents a guide for execution of a common approach to European energy policy. The only way how to support new infrastructure projects and implement new legislature is through cooperation and the involvement of several member states, who share common values and goals in energy policy and security. Following this local approach, Europe will be able to rebuild, modernize and interconnect its vast energy networks in the years to come and thus finalize its vision of a truly common energy market.

4. Conclusion

Europe's current energy policy lacks the legitimacy of a truly integrated policy area. Liberalization tendencies are accompanied by strong national unwillingness to lose its sovereignty over its energy policy and protection rules for its energy enterprises and consumers. EU´s energy policy is not built on a consensus among the major stakeholders, it is based on the power and the will of market players who do not necessarily support it. Only a common approach to identify shared values and principles among the member states and the realization of the benefits of liberalizing the internal market and of stronger cooperation on building local power networks can lead to the development of a truly common European energy market and creation of a common energy policy, which will protect and benefit all stakeholders and establish the basics for a low-carbon and sustainable economic growth. Europe has gone a long way in the last sixty years and integration must continue to new policies to develop the real economic potential of the member states. But the EU and its member states need to face the challenges ahead, especially growing prices, which increase overall costs of industries and thus decrease their global competitiveness, as well as the slow and rigid decision making process for creating new incentives for national companies to invest into new energy infrastructure and innovations.

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Ireland: From Poverty to Prosperity and Back Again

Edward Moxon-Browne
University of Limerick
Centre for European Studies, National Technology Park
Limerick, Ireland
edward.moxon-browne@ul.ie

Abstract
The economic fortunes of Ireland since its entry into the EU (then EEC) in 1973 can be usefully divided into three distinct periods: adaptation to EU membership; the 'Celtic Tiger' years ; and the financial collapse since 2007. In 1973, Ireland's per capita GDP was about half of the EU average but by 1992 it had exceeded 100 per cent. This rapid transformation was due to a number of factors : not least the beneficial effects of the CAP and successful exploitation of the EU structural funds. The period from 1992 to 2007 saw further acceleration of this prosperity culminating in the 'Celtic Tiger' phenomenon. Among relevant factors here were strong inflows of FDI; enlightened training and educational policies; a favourable demographic profile; a benign regulatory regime; and inflows of skilled immigration. The period since 2007 has seen a quick reversal of Ireland's economic fortunes. Much of this was due to an overblown construction sector, a loosely regulated banking system, and a loss of competitiveness arising from excessive wage inflation. The political consequences of this financial collapse have been quite profound.

Keywords: *European Union, Ireland, poverty, prosperity*

JEL codes: *F30, G01, N24, O52*

1. Introduction

This paper attempts to account for the remarkable changes in the economic fortunes of the Republic of Ireland between 1973 and 2012. For any understanding of the economic and social cohesion of the EU, the Irish experience is instructive. From the date of its entry into the EU (then EEC) to the present day, Ireland's relative position in the hierarchy of European prosperity has gone almost full circle. In 1973 Ireland was a *demandeur*, highly reliant on transfers from the 'core', but by 2006 it had become sufficiently prosperous to become a net contributor to the EU budget. Today, in 2012, Ireland's economy is the object of a financial bail-out and is, therefore, subject to policy restrictions imposed jointly by a 'troika' consisting of the ECB, the IMF, and the European Commission. While it is true that Ireland is today undoubtedly more prosperous than it was in 1973, its freedom to pursue its own economic policies is far more constrained than it was then, and in relative terms much more circumscribed than other EU member states (except Greece). The rapidity of Ireland's reversal of fortunes is underlined further by the fact that the 'Celtic Tiger' phenomenon, which was only a few years ago, held up as a model to be followed by developing countries in many parts of the world, is now regarded more circumspectly as a 'cautionary tale' from which many lessons of what *not* to do can be learnt. As we have noted, the Celtic Tiger was preceded by two or three decades of slower and uneven economic growth as Ireland adapted to membership of the EU. The causes of the Celtic Tiger may, in retrospect, have been a fortuitous synergy of circumstances that were almost unique to Ireland; and therefore the easy transferability of the model may be in doubt. That said, there is no doubt that the context for the serendipitous convergence of factors making the Celtic Tiger possible, was Ireland's membership of the EU, and the concomitant degree of 'globalisation' in the Irish economy. It is often rightly said that EU membership was a necessary, but not a sufficient condition, for the Celtic Tiger to flourish: as we shall see there were other indigenous factors that contributed to its success. While the Celtic Tiger may have taken its time to materialise, its demise was quite sudden. As we shall see, the causes of its disappearance were not related to the reasons for its emergence. The context was, however, the same: Ireland's membership of the EU provided a straitjacket that effectively exacerbated conditions under which the excesses of the Celtic Tiger were allowed to run riot, and elude the controls of either government or regulatory authorities.

2. The impact of EEC membership

The period from 1973 to 1987 can be regarded as one of disappointment inasmuch as the economic promise of EEC membership, that had been widely expected, did not in fact materialize. For the first fifteen years of membership, the perception of Ireland, at home and abroad, was of a poor and peripheral country that was having difficulty coming to terms with the exigencies of membership, and heavily reliant on financial transfers from Brussels. The country was eligible for, and benefited considerably from, funding from the CAP, and from the ERDF. In both cases, however, the funds received tended to shield Irish policy-makers from the need to carry out reforms especially with regard to industry and economic planning. The oil price crisis of the early 1970s and the ensuing recession in Europe further damaged the prospects for real economic progress during the first ten years of membership. By 1983, for example, Ireland's GDP per capita was still less than half of the EEC average. Irish industry was as badly-equipped to respond to international competition as it had been ten years earlier. Agriculture, by contrast, benefited from a steady rise in guaranteed prices under the CAP regime. Ireland produced more than twice as much beef and dairy produce as it consumed and was therefore well-placed to benefit from a transition towards the new arrangements. Between 1970 and 1978, farm prices rose 35 per cent in real terms, but more importantly Brussels and not Dublin was responsible for supporting farm incomes. By 1978, the EEC was paying 70 percent of Irish public expenditure on agriculture, and 88 percent by 1988. There were obvious spin-off benefits for the rest of the economy in the sense that, as the agricultural sector flourished, demand for related products such as machinery, fertilizers, and farm vehicles, tended to increase proportionately. The fisheries sector was less fortunate: the fleet tended to consist of smaller boats than other EEC countries, and was relatively outdated. When Ireland tried to protect its coastal waters from Dutch and French trawlers, it ran up against the principle of non-discrimination in EU legislation when it lost a case at the European Court of Justice in 1978.

All through the 1970s and 1980s, Ireland's experience of EEC membership seemed to strengthen the fears of those who had opposed membership on the grounds that the fashionable 'core-periphery' analysis of economic development would work to Ireland's disadvantage. Indeed during the 1980s Ireland's economic performance on most criteria lagged behind the other EEC states. By 1987, the debt/GDP ratio was 150 percent and budget deficits reached more than 8 per cent of GDP. In 1987, the OECD reported that unemployment had risen from 6 per cent to 19 per cent; emigration had returned; and living standards were falling. The fiscal crisis called for higher taxation; and endemic electoral instability produced short-term policies that were inadequate to grapple with the severity of the problems faced by the country. The mood of the 1980s was generally somber and introspective with academic analysts variously attributing Ireland's misfortunes to the 'colonial legacy', emigration' the political system and even the national character. One eminent historian (Lee 1989:521) was of the opinion that it 'was difficult to avoid the conclusion that Irish economic performance has been the least impressive in Western Europe, perhaps in all of Europe, in the twentieth century'. The year 1987 proved to be the turning-point. In that year a government think tank recommended a new strategy involving a compact between key economic actors and the government. Significantly, and almost uniquely in modern Irish history, the major opposition party combined to support the new 'social partnership' .The message was clear: domestic actors and national economic policy would need to take on board the challenges of an 'open economy' and a more globalized trading environment. Once the vicious circle of past policies was broken, a new virtuous circle of economic growth could be established.

3. The 'Celtic Tiger'

The advent of Ireland's spectacular economic growth in the 1990s was as sudden as it was unexpected. In 1988, the *Economist* depicted Ireland as the 'poorest of the rich' on its cover: nine years later, the same magazine portrayed Ireland as 'Europe's shining light'. As late as 1992, a group of Irish economists published a volume entitled *Is Ireland a Third World Country?* In 2005, the New York Times told its readers that Ireland was 'the richest country in Europe after Luxembourg'; and in 2006, *Le Monde* congratulated Ireland as the 'best student' in the European economy. From 2000 onwards the American journal *Foreign Affairs* published a Globalisation Index based on several dimensions: in 2001 and 2002 Ireland was the most globalised country in the world; and in 2006 its economy was the 'most open' in Europe. Inevitably, this Irish success attracted widespread attention. Countries as far away as New Zealand, Singapore, and Costa Rica tried to draw lessons from the Irish experience for their own economic development. Even within the USA, states like Georgia and West Virginia, and (despite the huge disparity in size) China sought to learn from Ireland's regional development and social partnership successes. At the same time, the Irish Government found itself called upon to provide extensive pre-accession training to countries joining the EU. What made Ireland conspicuous was that it was the only 'poor' EU state to converge completely with levels of prosperity in the richest countries. Between 1993 and 2001, Ireland's growth rates of 8 per cent or more enabled Ireland to catch-up with, and indeed surpass most of the 'core' countries. In

1986, Ireland's GDP per capita was 65 per cent of the EU average, but this had risen to 122 per cent by 2002. Unemployment fell dramatically from 17 per cent to 4 per cent in the same period.

There has been a great deal of debate about the causes and consequences of this economic success (e.g. Kirby 2002) and while there is a broad consensus on the key factors, there is less agreement on the respective weight that should be attributed to each. We argue here that the Celtic Tiger was the result of a synergy between several factors, some internal to Ireland, but others external, that created a 'virtuous circle' of economic success. A fundamental decision, taken in the 1960s, to prioritise foreign direct investment, led to many other complementary policies. Education was seen as providing a skilled labour force that would attract foreign multinationals. Between 1965 and 2005, the number of students in higher education grew from 21,000 to 137,000 and many of these were the benefiting from newly-established institutes of technology where science and engineering were emphasised as future growth areas. More recently, pharmaceuticals and software have developed in response to the needs of inward investment. The quality and specialisations of Irish graduates were decisive factors in helping multinationals to locate in Ireland; and the fact that the local language was English, as was ease of access in view of the geographical proximity of Ireland to the east coast of the USA.

Among more immediate factors that deserve mention are: 'social partnership' between labour and employers; a fiscal regime that was attractive to inward investment; and the buoyancy of the labour market. The need for a new model of social partnership became apparent as early as the 1980s when high unemployment and sluggish economic growth made it imperative to maximise industrial productivity. A series of discussions between the government, the employers and the trade unions led to a series of agreements that lasted up the time of the collapse of the Celtic Tiger. These agreements were based essentially on a tripartite bargain whereby wage restraint on the part of the trade unions was matched by tax reductions and other social provisions on the part of government. Such agreements depended for their success on a degree of mutual trust between the two sides of industry as well as a shared perspective on what economic challenges faced the national economy and how these might be tackled. The relatively intimate size of the policy-making elites in Ireland, and the fact that the three main political parties have not been separated by a wide ideological 'space' , have provided a hospitable context for these 'partnerships' to flourish. Days lost through strikes declined rapidly once these partnerships were established. The partnership 'model' in Ireland has been characterised by three features. Firstly, the shared experience of the partners in reviewing previous agreements, discussing current parameters of economic policy, and agreeing the outlines of the upcoming agreement. Secondly, the model is highly institutionalised in the sense that well-established processes are followed at each stage; and the bargaining process is geared towards mutually beneficial solutions where all participants feel they have achieved something. The participation of government provided a neutral arena for bargaining, lent the negotiations legitimacy and, not least, provided resources to lubricate the process when necessary.

A key prerequisite for inward investment is a tax regime that favours the presence of foreign multinationals. Since the 1960s, Ireland has defended its policy of low corporation tax despite pressure from other governments. In fact, the 10 per tax cent rate that was initially set came under the scrutiny of the EU Commission in the 1990s and was adjusted to 12.5 per cent for foreign and indigenous companies to meet objections that a more favourable rate for foreign companies would be discriminatory. As inwards investment increased, so did the yield for the Irish government. Between 1990 and 1998, revenue from corporation tax increased 350 per cent in Ireland. However, the attractiveness of the relatively low Irish corporation tax rates was somewhat mitigated by the adoption of similarly low rates by some new EU member states after 2004. It is also fair to point out that in the currently vulnerable position Ireland finds itself since the demise of the Celtic Tiger, the low rate of corporation tax is still being challenged by some other member states e.g. France. The bulk of the foreign direct investment in Ireland has come from the United States. With prospect of the EU Single Market in 1992, US investment in Europe doubled, but it quadrupled into Ireland. Major firms like Intel were followed by Microsoft, Dell and Boston Scientific with the result that the number of employees of foreign firms grew from 92,000 in 1995 to 129,000 in 2004. In 1997, despite its small size, Ireland ranked fifth in the world for US foreign investment. There were a number of a factors that made Ireland a magnet for American investors: a low corporate tax rate; a well-educated and computer-literate English-speaking workforce; a positive attitude towards membership of the EU (and of the *euro* after 2002); easy access from the United States; and the fact that many Irish middle-managers, having learnt skills in the United States, were now returning home to Ireland, and a better ‘quality of life’ for their families (the relatively low cost and plentiful provision of golf courses in Ireland was not unimportant in attracting US multinational bosses to Ireland!). Ireland had also become adept at identifying future growth sectors for foreign investment and making appropriate manpower and infrastructure provision: software in the 1980s; financial services in the 1990s; pharmaceuticals in the early 2000s

There was also the happy coincidence of a rise in structural fund support from the EU at about the same time as the surge in American investment took off. The so-called ‘cohesion funds’ had been promised to Spain, Portugal, Ireland and Italy in exchange for their acceptance of the rigours of the Single Market. From 1989 to 1999, EU aid amounted to about 3 per cent of Irish GDP per annum. The benefits went far beyond the amount of money received: multi-annual planning; regular evaluation; participation by the Commission on monitoring committees; and a new emphasis on regional development all contributed to a new era for Irish public policy in a sector that had been hitherto underfunded. Besides investing in vital infrastructure (roads, railways and telecommunications) the cohesion funds also went towards training and education: thus there was a perfect match between the purposes of the EU structural funds, and the needs of foreign direct investment The buoyancy of the Irish labour market in the 1990s was undoubtedly a key factor in creating and sustaining the Celtic Tiger. Here a number of trends, some of them fortuitous, combined to provide a supply of labour that was well-attuned to the demands of the economy. During the 1990s, the labour force increased by 50 per cent as women and returning emigrants joined the job market. The Irish birth rate was one of the highest in Europe, and the demographic profile of the Irish population was skewed in favour of those of working age. The unemployed who had benefited from consistent and focussed training programmes adapted easily to job opportunities as they came on stream. Returning emigrants, having acquired new skills and experience overseas, contributed a rich vein of expertise to the Irish workforce.

The experience of the Celtic Tiger has stimulated a debate as to whether Ireland is indebted more to the USA than to the EU. This question has been pithily summarised as "closer to Boston or Berlin"? In fact, the truth is that Ireland was fortunate to benefit from a synergy between both. Europe provided the conditions of Single Market, while the USA provided investment, high quality companies, new technical and managerial competence in Irish industry, and a thriving export sector. To use a football metaphor: The EU provided the playing-field and a set of rules, and the USA provided the players.

Despite the undoubted wealth that the Celtic Tiger brought to Ireland there is continuing debate about how beneficial it has been to the Irish economy and Irish society. The success in attracting foreign direct investment has been bought at the price of a weakly developed indigenous sector. The foreign sector can be fickle: as Ireland lost its competitiveness in the early years of this century, and was exposed to competition from other EU economies offering low corporation tax rates and lower labour costs, multinationals were tempted to move their operations out of Ireland. One recent example of this was the movement of Dell, which had trained Polish workers in its west of Ireland facility for a number of years, and then suddenly moved its entire assembly operation to Poland. The weakness of Ireland's indigenous sector is a cause for concern and, to some extent; its weakness has been shielded from policy elites by the conspicuous success of foreign companies.

Irish society has benefited from an increase in wealth that has affected all layers of society. That said, some writers point out that this general increase in wealth has been very unevenly distributed: the gap between rich and poor has never been wider. Also, in an era of low taxation, expenditure on public goods such as health, education and social welfare has lagged well behind conspicuous private consumption on second (and third) homes, cars, consumer goods, and holidays. A metaphor for this contrast has been the lavish expenditure on golf courses across the country as compared to the dilapidated condition of many hospitals, schools, prisons, railway lines and roads. A concomitant problem is the environmental sustainability of rapid economic growth: the location of waste facilities; the quality of water for drinking; planning in rural areas; and the high dependence on fossil fuels are all issues facing contemporary Irish society.

4. After the Celtic Tiger

As recently as 2007, therefore, Ireland could still be seen as a successful model for economic development among EU member states. It had enjoyed a period of steady economic growth, low unemployment and healthy budget surpluses. Three or four years later, Ireland is shut out of sovereign debt markets, it is an EU-IMF adjustment programme, and its debt-GDP ratio has exceeded 100 per cent. It is fairly well-known by now that Ireland's Celtic Tiger came to an abrupt end due to a property 'bubble' and a banking crisis. This collapse was preceded, however, by a period of spectacular growth. Employment rose from 1.1 million in the late 1980s to 2.1 million in 2007. Added to rising productivity, the Irish economy experienced remarkable growth: from 1987 to 2007, averaging 6.3 per cent per year. This allowed the Irish government to lower tax rates, and increase spending year after year, and yet tax revenues continued to deliver successive budget surpluses.

This apparent success was in fact dangerously dependent on housing boom. With low interest rates, rising demand, and increasing population, house prices quadrupled between 1996 and 2007. This was accompanied by a boom in construction: from 1.2 million homes in 1991, 1.4 million in 2000, to 1.9 million dwellings in 2008. The annual rate of house completions rose from 50,000 in 2000 to a massive 93,000 in 2006 (four times the rate in the USA for example). Construction became a central feature of the Irish economy, drawing in EU immigrants who, in turn, added further pressure on the demand for housing. By early 2007, it was becoming clear that Irish houses were seriously over-valued; and a decline began to set in. This led to a decrease in demand, and to a collapse in housing construction. Today, Irish property prices are 40per cent lower than at their peak (50 per cent in parts of Dublin), and are still falling. Because such a high proportion of fiscal revenues were dependent on property- related taxes, the government was suddenly faced with a wide gap between income and expenditure. The proportion of fiscal revenue dependent on income tax had been scaled back in the belief that property revenues would remain buoyant. In 2008, Irish GDP fell back 3.5 per cent, and by 7.6 per cent in 2009.In response to the prospect of deficits approaching 20 per cent of GDP, the Irish Government has introduced a series of 'austerity' budgets amounting to 20.8 billion euro (one of the largest adjustments seen in any modern economy). The impact of these budgets has been severe: GDP has declined by about 20 per cent since 2008.

The second feature of the Celtic Tiger collapse has been the banking crisis in Ireland. The expansion of construction activity after 2002 was largely supported by the banking sector. Relying on the prospect of ever-increasing property values, Irish banks began to loan amounts that far exceeded their deposits after 2003: the six main Irish banks lending expanding to nearly 100billion euro (or half of GDP) by 2007 from a mere 15 billion in 2003. Once it became clear to international investors that Irish banks were over-exposed, the latter found it increasingly difficult to raise funds on bond markets. This caused the banks to turn to the Irish government who, in turn, in a historic decision on September 30, 2008, gave a blanket guarantee to the Irish banking system. Although apparently under the impression that the banks' problems were less severe than they actually were, and would not involve the state's finances, the true gravity of the banks' predicament became clear in spring 2009, and the government began using state finds to support the banks. However, by 2010, even the state guarantee became shaky in the eyes of international markets, and the ECB increased its loans to the Irish banks from 36billion euro in April 2010, to 74 billion in September of the same year. Eventually, the ECB was sufficiently fearful of the prospects for the Irish banking system that it made further loans conditional on a ‘bail-out’ from the EU and IMF. In late November 2009, a deal was agreed with Ireland whereby 15billion euro of fiscal adjustments would be required by 2014, and the deficit would be successively lowered to 3per cent of GDP by 2015.

One important consequence of the terms of the bail-out has been a reappraisal in Ireland of the ‘fairness’ of the EU. Viewed from the vantage point of Irish public opinion there has been increasing indignation that the burden of responsibility for the banks has been transferred to the Irish taxpayer. The Commission’s view is that the responsibility for the banks’ reckless lending lies in Ireland (especially with ‘light touch’ regulation) and that it is appropriate that the burden of rescuing the banks should fall on the Irish people. However, even if this is accepted, it has been pointed out (Kirby and Murphy 2011:158) that foreign banks in Germany, Britain and France lent to Irish banks hoping to exploit the Irish construction boom. Moreover, the Commission itself, by overseeing low interest rates in the same period must also accept some responsibility for the Irish banking collapse.

Not surprisingly, perhaps, the financial collapse in Ireland has led to a deeper introspection about the political system: is it fit for purpose, or does it need reform? The Government has gone some way towards meeting this demand for change by promising a ‘constitutional convention’ but its remit is likely to be very circumscribed. There is a mood in the country for much more profound change: not simply in the way that institutions operate, but in the values that underlie the political system itself.

The lessons of the Celtic Tiger and its hasty departure are fairly straightforward. It was created by a set of conditions unique to Ireland. Even if it is regarded as a desirable phenomenon, it is not clear that it is, or should be, applicable other countries. However, in retrospect, there seems to be much that was wrong with the Celtic Tiger. If it created a successful economy, it did not create a successful society: the gap between rich and poor grew wider, and opportunities to help marginalised sections of Irish society (e.g. the old, the handicapped, prisoners, and Travellers) were simply not taken up.

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Global and European Challanges on Some Issues of Global Governance

Tamas Czegledy
University of West Hungary
Institute for Regional and International Economy
Erzsebet u.9, Sopron, Hungary
czta@ktk.nyme.hu

Abstract
Especially in an economic crisis is there the time for the European and global consideration of the wide range of problems. In addition, if the crisis is not only economic but also environmental, security, political and social crisis, so we must find the common international standards of responsibility and permanent exploration. The commonly used concept of "sustainable development" mixed with the challenges of the European and global economic crisis supported the explanation and the solutions handled globally. Governing theories throughout the past centuries in the history have been very diverse and it is clear that there is not an only and exclusively developed governance model adopted at national, regional and international levels. Yet the need for common global governance and the necessity for the agenda for the world economy have been involved in international scientific public life. Analyzing the steps of the global actors could show a new way of thinking about globalization.

Keywords: *EU, economic crisis, global governance, globalization, sustainable development*

JEL codes: *F01, F02, E24, O16*

1. Introduction

According the economic crisis (not only the recent) - examined in any circumstance and case, the question arises of who or what is responsible for the developing, how to reduce the destructive impact, and how to prevent the next crisis.

To find new ways for the solutions to new problems has become particularly important since the Report of The Club of Rome about the global problems.

These ideas and come up with solution, so far are only attempts and even the rigidity of structures is often unjustified difficulties in peripheral or semiperipheric economies. This caused a deeper crisis and the solutions even more complex. The answers to the deep and extensive and internationally wide crisis should be global, and has to have a global interference. Of course, such interventions designed to express a significant role for the economic centres and a very necessary and also understandable treatment for the peripheral or semiperipheric countries, believing that the problems of different economic and political potential has a natural demand for participation in democratic decision-making.

1.1 About the idea of global governance

After the first decade of the 21st century we are on the threshold of a new global order. One of the most dominant trends involved is globalization.

Globalization influences every aspect of our lives. It influences the daily media, courses taught, even the way the people on the street think. But what is this process, what can we do against it or how can we have an impact on it? What are the major institutions and organizations behind world economics and politics? I have tried to answer these questions, from possibly a different point of view.

In Hungary Global Governance is not a well-known idea, in the Hungarian scientific literature is possible only in the last decade and past years to read about it.

The history of Global Governance looks back to the beginning of the 19th century. It was the first time a common leading system was worked out, as then history was played mostly in Europe. At that time the Austrian, Prussian and Russian emperors formed the holy Alliance upon the value of feudalism. But the range of revolutions overthrew the system shortly after its conception. After the World War One the League of Nations was established for working out a universal global sys but because of the many times contravened principles it could not achieve its task. The role of the League of Nations was in turn inherited by the United Nation, which was formed after World War Two. To this day the UN is the most universal leading system of our world (Czegledy, 2007).

The role of the United States of America was instrumental in forming the UN, not surprisingly as it represented the most dominating political, military and economic force. But this American impact on world economic processes was not just a good solution for the emerging problems. As one of the biggest contradiction of the globalization, USA holds up the inequality in the world economic system, even though mentioning just the opposite of it.

Global Governance has a double meaning (Roloff, 2000). It refers to a structured institution (not necessarily a brand new institution) and an idea — an attempt — at the same time.

The institution is a supranational co-operation of nations. The idea is that of governing the world, preventing harmful processes and looking for the best way to solve problems. Its goals are economic security and sustainable development.

Willy Brand‘s idea to form the Commission on Global was born in 1992. Its task should be the research of international economic growth and its dimensions, and the creation of a more peaceful and habitable world for its people.

Several governments, as well as non-governmental organizations and institutes provided support for the Commission’s work. Global Governance research focuses on a wide range of security issues, such as psychological, gender economic, environmental, cultural, communicational and international security.

Global Governance deals also with the reforms of the UN, tying to restructure its mechanism and establish its new role in leading the world. After the collapse of the US Soviet bi-polar system, we are now dealing with a destabilized situation, a problem to be solved by the UN.

The world's leading economic institutions are IMF, IBRD and WTO. The central issue is how policy makers should respond to the pressures now falling on the WTO system while ensuring the preservation of a trading system that has led to unprecedented growth in the world economy and contributed to the peaceful coexistence of nations. In a crisis the role of the international institutions is more than only the help and a bail out for the countries in depression.

In the European Union are of course the main actors the Council and the Commission together with the financial institutions Central Bank and the Monetary Union. The policy makers' answer for the crisis was the setup of the EFSF and later the ESM with the objective to preserve financial stability of Europe's monetary union by providing temporary financial assistance to euro area Member States if needed[1].

As economies become more interdependent, it is not only the opportunity for wealth creation that is multiplied, but also the opportunity for destabilizing shocks to be transmitted from one country to another. International co-operation has forestalled or mitigated some shocks, but others have been allowed to gather momentum and inflict economic damage and social pain. No satisfactory mechanism exists to anticipate or respond promptly to future global shocks. The IMF, which should be playing a major role in countering destabilizing shocks, is constrained by limited resources. Global Governance with its staff should help to work out projects for these situations (Kenedy et. al., 2002).

2. The main points of emphasis of global governance

2.1. The global issue

The previously on regional or state level emerging problems in the 21st century became global. The development gap between rich and poor countries became wider, only a few countries managed to reach higher with opening their markets and international integration. The countries of the developing world are there in world economic processes, but only as resource-exporting countries. They face the failing terms of trade every year so they cannot accumulate intern. Without that the social institutions will stay at primitive level, causing more future problems. Often facing humanitarian crisis or civil war, these countries need international cooperation to avoid or solve the problems.

After forming the United Nations in 1945 the international cooperation was given a global platform. But the roles and the possibilities to take part in decisions many times do not reflect the Nation), to make the decisions democratic for developing countries suitable for their political/social weight as well. The NGOs and

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[1] The members agreed to increase EFSF's scope of activity and increase its guarantee commitments from €440 billion to €780 billion which corresponds to a lending capacity of €440 billion and on July 21, the Heads of Government and State agreed to further increase EFSF's scope of activity. The ESM will have a total subscribed capital of € 700 billion. Of this amount, € 80 billion will be in the form of paid-in capital provided by the euro area Member States. Two tranches of capital will be paid in 2012, a first one in July, a second one by October. (http://www.efsf.europa.eu)

INGOs should have controlling position over the WTO with giving their opinion and playing preparing role by the resolutions.

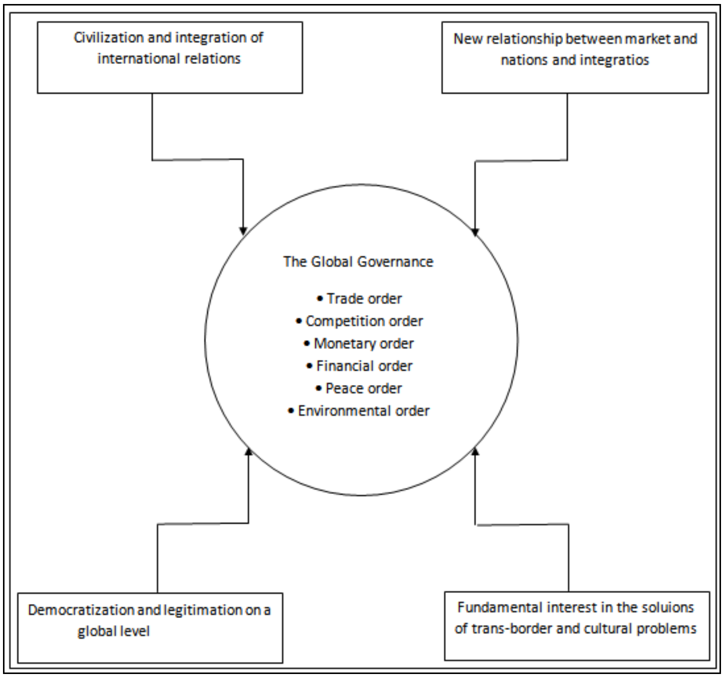
Other economic forums where global decisions are taken (G8, World Economic Forum, G20), should be changed to global partnerships. The rights of the developed countries would stay, but should be expanded with those of the smaller or developing countries. If this forum would copy one of the institutions of the United Nation, then they should be integrated or the organization without international control should be dissolved (Kaufmann et al., 2006).

Analyzing the effects of the international flow of capital should cause changes in aspects of expenditure and income principles in developing countries, so their hopeless situation in debt crisis would be released by sharing profits with the countries or for the part of profit debt would be transformed into aids. With this movement would be not only the insolvency avoidable but humanitarian – moral gestures could be given from the developed world. Even by the developed countries supported Tobin-tax-like taxes should be established, which would not only assess taxes on speculative transactions, but the use of non-renewable resources and the environment polluting industries too. The income of these taxes should be given to countries ordered by need. The ranking should be given by the UN as initial task.

One of the primary goals of the global governance is that the transnational companies work according to the international legal norms, keep the human rights and have also interest in it. In an international institution, which would check activities of the TNCs, would be given place to the experts of the origin and the target countries, and independent UN-employees, as well. It would be necessary to form an indicator system to study the synergy of companies and their environment, the social effects of their activities and on the basis of this indicator system an opportunity presents itself to asset an international tax, which appropriation would be within the competence of the target countries of capital investments. To achieve, that the TNC-s can't stay out of these and in the 7th thesis described taxes, a standard international introduction is needed.

In the 21st century it is necessary to re-evaluate the national sovereignty too (Soros, 2008). In case of economic, commercial and political conflicts to prevent the humanitarian disasters an organization – similar to the Trusteeship Council - by right of UNO mandate could take charge until the consolidation of the situation. This organization - advocated by the peacekeepers and peacemakers – could prevent or reduce the effects of disasters, or the escalation of problems.

Figure 1: The complex of the Global Governance



Source: Own elaboration, 2012

2.2 The European issue

The *European Council's* role in the crisis-hit times is possibly even more essential, because it is only appreciated at this highest level to meet the fundamental strategic decisions. In this aspect it was very important for both the 2008 October and December, 2009 the March and June Summit, and the closing documents. These meetings have also had their key part in the G7 and G20 summit-level negotiations, where the European Councils gave the mandate to negotiate

The impact of the economic crisis, the European Union has dramatically in some member states as Hungary and Latvia have already received a combined rescue package in 2008, the International Monetary Fund (IMF), the World Bank and the European Union. Romania’s way led 2009 and 2011 to the IMF, in 2010, Greece as a member of the euro zone has received a loan from the EU and IMF. The same year Ireland adopted a financial assistance package, followed by Portugal in 2011.

Seeing this, the question arises: is it accidental that the most vulnerable countries came from both the EU15 and the new members of the EU which benefit from the cohesion fund the cohesion countries have been called? Not only in the media, but also professionals spoke quickly about the EU *centers* or core countries and the *periphery*. And if the crisis once it is over, there will be a consequence of this period, whether these countries will return to their promising trends which were to see in the 5-25 years of their integration that means under their membership?

I try to analyse the crisis from these aspects, what we know so far to answer these questions. This is very important because it is one of the fundamental aims of

European integration and of course of the European governance too to give the poorer member states the possibility to achieve a much stronger social cohesion. This should also a separate policy being assigned to the cohesion policy. The big problems of the old cohesion countries show an unexpected shock and particularly serious problems for the European Union, because the integration of these countries was described as a fulfilled process. Accordingly all analysis and the whole literature spoke about the *old cohesion countries among the EU-15* and the *new member states were separated* only[2].

Impact of the crisis on *economic growth* shows obvious difference between the Mediterranean countries and the new member states. At the outbreak of the crisis in the last quarter of 2008 the Eastern and Central European countries appeared to be resistant, because they have been infected with the *bad securities* in an ignorable extent. However, the rate of decline in 2009 – except Poland, in all of the new member states exceeded the EU average and the Baltic countries have suffered exceptionally high losses (Fabrizio et al., 2009, Gallego et. al., 2010). However, with the exception of Hungary and Slovenia 2011 the growth in these countries has been above the EU average, again, this seems to continue in 2012. In contrast, only one of the old cohesion countries was a remarkable recession: in Ireland; in the other countries even less, but they will face a prolonged slowdown. The *unemployment* except the Czech Republic, Poland, Romania and Slovenia, has become in all cohesion countries higher than EU average (see Table 1).

[22] The two small islands, Cyprus and Malta are not to be involved in this study in the group of the new cohesion countries, because they do not share the history of the other new member states and they have only a few hundred thousand inhabitants which data is not statistically significant.

Table 1: The real GDP growth and the unemployment rate in the cohesion countries under the crisis

	2008	2009	2001	2011(e)	2012(e)	2008	2009	2010
	Real GDP Growth					*Unemployment rate*		
EU-27	0,3	-4,3	1,9	1,6	0,6	7,1	9	9,7
EU-15	0,0	-4,3	1,9	1,5	0,5	7,2	9,2	9,6
The old cohesion countries								
Ireland	-3	-7	-0,4	1,1	1,1	6,3	11,9	13,7
Greece	-0,2	-3,3	-3,5	**-5,5**	-2,8	7,7	9,5	12,6
Spain	0,9	-3,7	-0,1	0,7	0,7	11,3	18	**20,1**
Portugal	0,0	-2,5	1,4	-1,9	-3	8,5	10,6	12
The new cohesion countries								
Bulgaria	6,2	-5,5	0,2	2,2	2,3	5,6	6,8	10,2
Czech Rep.	3,1	-4,7	2,7	1,8	0,7	4,4	6,7	7,3
Estonia	-3,7	-14,3	2,3	8	3,2	5,5	13,8	16,9
Latvia	-3,3	**-17,7**	-0,3	4,5	2,5	7,5	17,1	**18,7**
	2008	**2009**	**2001**	**2011(e)**	**2012(e)**	**2008**	**2009**	**2010**
	Real GDP Growth					*Unemployment rate*		
Lithuania	2,9	-14,8	1,4	6,1	3,4	5,8	13,7	17,8
Hungary	0,9	-6,8	1,3	1,4	0,5	7,8	10	11,2
Poland	5,1	1,6	3,9	4	2,5	7,1	8,2	9,6
Romania	7,3	-6,6	-1,9	1,7	2,1	5,8	6,9	7,3
Slovenia	3,6	-8	1,4	1,1	1	4,4	5,9	7,3
Slovakia	5,9	-4,9	4,2	2,9	1,1	9,5	12	14,4

Source: Eurostat (data of 2011 is estimated)

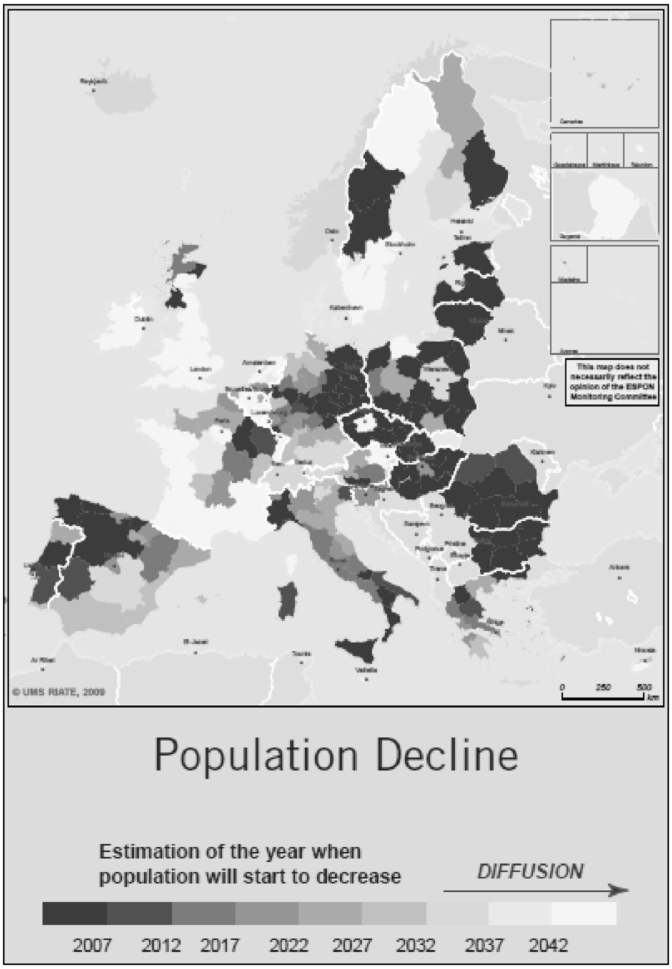
This process can be surprising because the closing-up of the old and the new cohesion countries was shown as a success. Whether the figures of the convergence in GDP or consumption measured, between 1970 and 2009 *no other areas* in the world (Eastern Asia or Latin America) *did have a similar process*.

The crisis has shown that the model of the convergence based on the high foreign direct investment capital with no or very low national reserving abilities had a *key role* in the European cohesion model. From 2000 till 2008 both in the old and the new cohesion countries the in-flowing foreign capital was in GDP-proportion a way higher than in other areas (Fabrizio et al., 2009; Gallego et al., 2010). After 2008 the crisis hit the cohesion countries, they did not have reserves, the international demand for their exported goods fell, and the domestic consumption had no more impulse because of the falling net incomes. The lacking financial instruments (60-90% of the institutions was in foreign property (Farkas, 2012)) gave also less opportunities against the crisis.

2.2.1. Other governance problems

Besides the financial and economic topics the European governance has to fight against a range of problems (of course this paper cannot handle all of them). The population in Europe is ageing, the cohesion countries have low fertility rates and immigration towards the core countries is every year higher.

Figure 2: Population decline in Europe

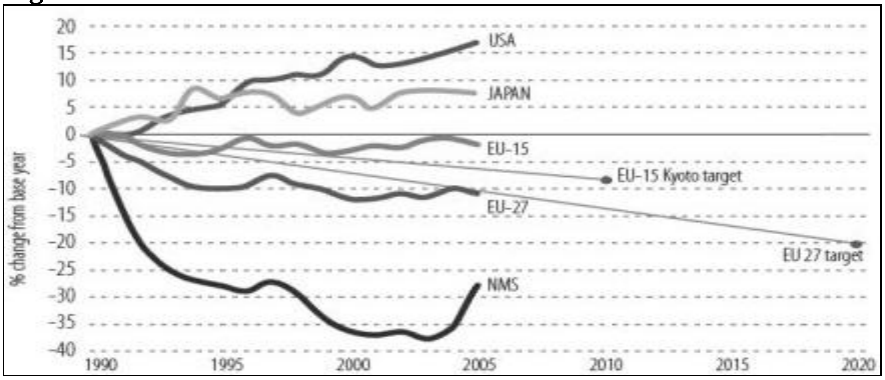


Source: ESPON [online]. Available at: www.espon.eu

European governments could successfully fight against the looming economic threats of declining fertility rates and ageing populations. Policies that remove jobs and career obstacles to parenting are a critical part of any solution. However, reversing mid- and long-term ageing and low reproduction and fertility ability and willingness remains difficult, given that policies for doing so may not pay profits till the next generation reaches working age. Prior to that time, millions of baby boomers will have retired. Later a solution will require long-term vision and political courage.

The European environmental thinking including the air pollution, biodiversity, climate change, natural resources water and soil pollution is in the leading position in the world, but there is a lot to do to reach the target in the field of the renewable energy resources. The Directive 2009/28/EC on the promotion of the use of energy from renewable sources (RES) sets the overall target to reach 20% renewable energy in gross final energy consumption in 2020 (http://eur-lex.europa.eu/).

Figure 3: Greenhouse Gas emissions



Source: Europa.eu [online].Available at: http://ec.europa.eu/environment/index_en.htm

3. Conclusion

Global Governance focuses on financial and economic issues in the past years. Of course the importance of the international institutions and the formal and non-formal institutions as the IMF, EFSF, NGOs, and INGOs can have even a big effect on the world economy.

In fact, the developed countries got in a similar situation where the developing countries were in the past two decades on the way to the debt trap. The monetary and fiscal restriction policy does not help (e.g. Greece, Spain, Portugal), because economic growth is not possible without the need to change and get out of the crisis. The government debt is so high that it is very difficult to refinance the loans from the markets.

The states have strongly limited opportunities to rescue their economies, no chance for reflating reform packages, because on the expenditure side of the budget it is easy to reach the level of an inappropriate public debt (in the United States is it very close).

After the world economic crisis with the help of the rescue packages there remains the *financial bubble*, for the investors the *possibility of profit maximization* (Stiglitz, 2008) and the situation is dangerous because the states *do not have own instruments* and reserves to face another decline or to stop the increasing public debt.

These facts would cry out for an international cooperation, which would be also a universal and an economic governing system (Report of the…, 1995)[3].

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[3] In 1995 the „Report of the Commission on Global Governance (ISBN 0-19-827998-1; Published by Oxford University Press” made already some suggestions, which could be useful in 2012 too.

Real Convergence of the Czech Republic to the Eurozone and the Balance of Payments

Kateřina Dvoroková
VŠB – Technical University of Ostrava
Faculty of Economics, Department of European Integration
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
katerina.dvorokova@vsb.cz

Abstract
In 2004 the Czech Republic has become one of the EU Member States but so far has not accepted the single currency. The fulfillment of the Maastricht convergence criteria is the exhaustively defined condition for the adoption of the euro. Given that these criteria are very often criticized, the real convergence is examined at countries that want to become a member state of the euro area. The convergence process will be verified by the analysis of the components of GDP, especially on investments and net exports that are monitored in the balance of payments.

Keywords: *Real convergence, balance of payments, EU, Czech Republic*

JEL codes: *F43, O11, O52*

1. Introduction

The Czech Republic has been participated since 2004 in the integration processes that had been taking place in Europe since the 50th of the 20th century. Along with nine other states that year became the Czech Republic a member of the European Union. From a legal point of view this membership includes the obligation of effort to meet the convergence criteria. Their achievement is a necessary condition for adopting the euro and entering into the eurozone. So far have fulfilled the convergence criteria these new member states - Cyprus, Malta, Slovenia, Estonia and Slovakia (countries are ranked according to the date of entry into the euro area). Although the fulfillment of the convergence criteria is exhaustively defined, it is the responsibility of states to establish the precise date of entry into the euro area and it depends primarily on their readiness to adopt the euro. For the Czech Republic is thus the date of euroadoption still topical. Given the fact that the Czech economy as well as other world economies has been hit by the economic crisis, but also because of the prevailing euroskeptismus of current political representation in the Czech Republic, there is a continual reassessment of the expected dates of the possible adoption of the euro.

The basic condition of preparedness for joining the euro area is thus fulfilling the convergence criteria, which are monitored through the convergence of economies according to the indicators in nominal terms. It is the convergence of inflation rates, long-term nominal interest rates, exchange rate stability and not exceeding the threshold ratio of government debt and government deficit to gross domestic product at market prices. Phenomenon to answer the questions of preparedness of the euro in the Czech Republic, has become examination of the convergence of economies in real ways. The traditional question "When will meet Czech Republic exhaustively defined convergence criteria?" is associated with a new unknown "Will ensure the fulfillment of nominal convergence criteria for economic compensation and living standards of the Czech Republic and the euro area?".

1.1 Theoretical background

In particular, the level of economic convergence is a key aspect when examining real convergence of economies. But there are many other areas and approaches to measuring real convergence. Generally, these approaches can be divided according to economic theory underpinning. Examination of the origins of convergence can be combined with theories of economic growth. It Concepts β-and σ-convergence, whose authors are Barro and Sala-i-Martin (1992), are widely studied in the empirical research, see Hančlová et al. (2010), Novak (2009), Naghtingal (2005), Soukiazis and Castro (2005), etc. The concepts based on the optimal framework of the theory (Mundell, 1961) deal with structural economic alignment, synchronization of business cycles, etc., see Aguiar-Conraria and Soares (2011), Tuleja (2007), etc. Since they are not fixed criteria of real convergence, as it is at the convergence criteria, it opens the door for the development of alternative forms, approaches and procedures, the results can be subsequently compare and contrast with these "traditional" approaches.

In the case of reducing the differences between the economic levels of countries, the most studied indicator is the Gross Domestic Product per capita (GDP p.c.) measured in the Purchasing Power Parity (PPP).[4] When the price level convergence is measured, the GDP p.c. in PPP is replaced by other indicator focused on illustrating of the prices development. The selection of this indicator depends for example on the chosen level of the research (macro or micro level).

The convergence of different countries was and still is the object of research in various areas of modern economic theories. In the frame of this process the term “unconditional convergence” was defined and specified (Sala – i – Martin, 1996) as a situation, where the countries with different starting positions of the chosen indicator are getting closer, but the final stable state is not reached. The unconditional convergence is measured by popular concepts of beta and sigma convergence. Both these concepts are based in the economic growth theory. The beta convergence concept measures the reduction of a gap between the former and current economic level, see Pfaffermayr (2009), Furceri (2005), Michelacci (2000). The sigma convergence is defined as a process, when the variance of economic levels of compared economics declines in the time, see Barro (1992), Dalgaard (2001), Lucke (2008), Miller (2002). Between these concepts exists a casual relation. If the sigma convergence exists, the beta convergence exists as well. But reversely this relation does not need to be valid. This implicative relation has been the object of the following studies: Furceri (2005), Wodon and Yitzhaki (2006), Sala-I-Martin (1996).

[4] Purchasing Power Parity (PPP) compares the prices of goods and services in national currency to prices of comparable goods and services in the currency of chosen country, which ensures the transfer of the currency basis, as well as the price basis.

An alternative measure of the development and the level of convergence between economies may therefore be an analysis of balance of payments. This statistical accounting record generally records economic transactions with foreign domestic economy. Monitoring the balance of payments is therefore extremely important for estimation of the future exchange rates development, for economic policy choices, and it can also serve as a tool to analyze the convergence or divergence trends in the domestic economy to foreign countries, for details see Abiad (2007).

2. Problem formulation

In 2004 the Czech Republic became the part of the accession to the EU's internal market. A key aspect of monitoring the impact of changes in the balance of payments on real variables of the Czech economy will, therefore, be a separation of individual records captured in the balance of payments in terms of foreign trade relations of our economy - as a participant in the EU internal market (there will be need to select particular economic transactions in the euro area and other EU Member States) and as a part of the common commercial policy - links to non-EU countries. Attention will be focused on current and capital account, which contribute to the GDP (gross domestic product is just a key indicator to determine the level of real convergence of the two countries).

2.1 Input Data

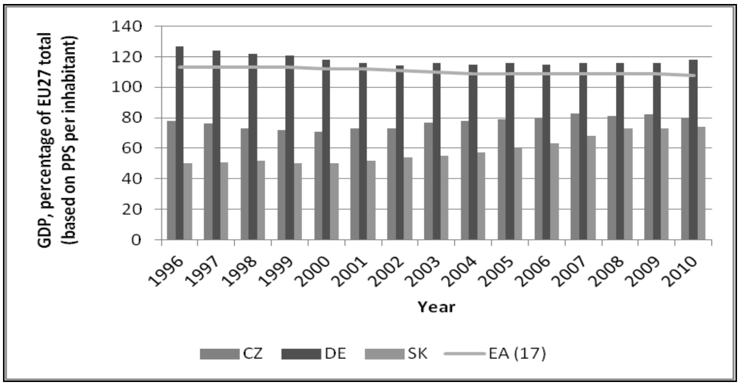
Statistical input data to measure the convergence of the eurozone, selected euro area economies and the economy of the Czech Republic is made up of particular national data, drawn from Eurostat (2012) database.

For the studied economies there were applied time series of these indicators: GDP, percentage of EU27 total (based on PPS per inhabitant), final consumption expenditure of households and non-profit institutions serving households (millions of euro), final consumption expenditure of general government (millions of euro),gross fixed capital formation; investments (millions of euro), net exports (millions of euro). The subject of the analysis is data for all euro area Member States and the Czech Republic in the reference period 1996-2011.

3. Problem solution

The convergence process took place in the euro-zone members and the Czech Republic not only with a different intensity, but also with significant changes, which has changed during the period (1996-2010) the order of the economic performance of individual countries. In 2009 the Czech Republic was on the 17th place in the ranking of countries according to EU-27 economic level. The Czech Republic has achieved 82 % of the average level in EU-27. The higher economic level have been reached by all euro area economy with the exception of Malta, Portugal, Slovakia and Estonia, which did not surpass the level of economic level of the Czech Republic. Because of th crisis, the Czech Republic in 2010 fell by 2 percentage points to 80 % of the average level in EU-27 (see Figure 1).

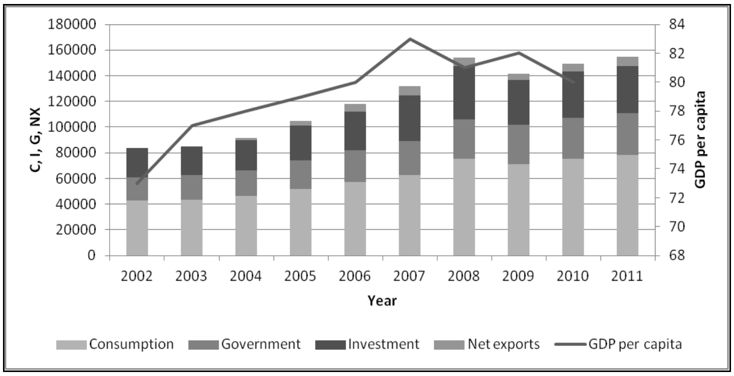
Figure 1: Structure of GDP (in million euros) and GDP per capita in PPS in selected countries, period 1996-2010



Source: Eurostat (2012)

The following chart shows the development of consumption, investment, government spending and net exports in the Czech Republic in the period from 2002 until 2011. These are expenses that are monitored in order to find the gross domestic product in the economy in one year. It is quite clear that GDP growth in absolute terms was primarily driven by consumer spending. Consumption expenditures in 2011 were 35 543.7 million euros higher than in 2002. Relatively the most increased spendings on net exports, by 154.6 %, when in 2002 these expenses amounted to -439.8 million euros, while in 2011 it was 7 240.1 million euros.

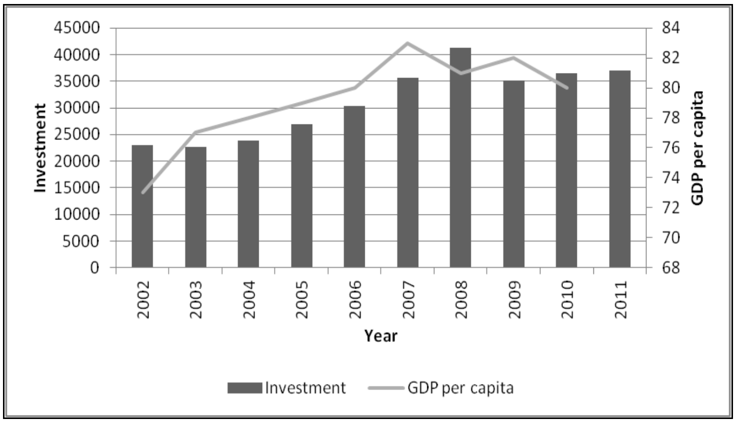
Figure 2: Structure of GDP (in million euros) and GDP per capita in PPS in Czech Rebuplic, period 2002-2011



Source: Eurostat (2012)

The following Figure 3 shows the trends of expenditure on investments in the Czech Republic in the period from 2002 until 2011. The chart shows that the development of investments copied the real convergence of the Czech Republic to the economies of the European Union. This development suggests that investment spending was the driving force of the Czech Republic to other economies in the EU in real terms. Up until 2008 there was the growth of expenditure on investment and the real economic convergence with EU economies Czech Republic. Only in 2009 there was a decline of investment spending, while the Czech Republic divergence from the average level in the EU. This phenomenon can certainly be attributed to the economic crisis, which spilled over into the EU from the USA.

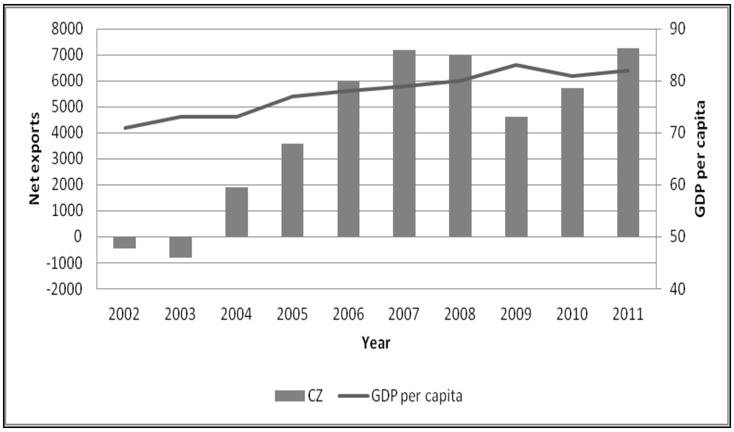
Figure 3: The trends of expenditure on investments in the Czech Republic (in million euros) and GDP per capita in PPS in Czech Rebuplic, period 2002-2011



Source: Eurostat (2012)

The last Figure 4 shows the dependence of costs on net exports in Czech Republic depending on the evolution of GDP per capita in PPS in the Czech Republic in the period from 2002 until 2011. While the economic crisis resulted in reduction of expenditure on net exports in 2009, the economy is still really appreciated CR relative to the average economic level of the EU. Since 2010 there has been a revival of growth in expenditure on net exports, while the economic level for the first time this year fell, to 80 %. However, in the long run it can be concluded that there was growth in both indicators, namely, the growth of spending on real net exports as well as bringing the CR to the average economic level of the EU. Is it right to believe that foreign trade is one of the drivers of real convergence of the CR in the environment of the EU economies.

Figure 4: The trends of expenditure on net exports in the Czech Republic (in million euros) and GDP per capita in PPS in Czech Rebuplic, period 2002-2011



Source: Eurostat (2012)

4. Conclusion

Exploring the convergence of economies has become a phenomenon of recent years mainly due to monetary integration processes taking place within the EU. In terms of of the Czech economy the convergence is widely discussed primarily due to the correct timing of entry into European monetary integration and the adoption of the euro. Given that the Czech Republic has not officially set date for euro adoption, exploration of the convergence process of the Czech economy is the most current issue of the euro area, although the author is fully aware of the political influences that the question of adoption of the euro in the CR influence (this work, however, abstracting from them in any way).

From the graphical analysis performed shows that the Czech economy converges to the real economies of the European Union. This fact illustrates the indicators of GDP growth per capita in PPS. In 2002, the economic level of the Czech Republic in 73 % of the average level in EU countries. In 2011 it was already 80 %. In 9 years, there has been a real convergence of 7 percentage points. Furthermore, there has been observed the evolution of the expenditure components of GDP, which are also recorded in the balance of payments - in particular, expenditure on investment and net export spending. Both indicators showed the correlated evolution of GDP per capita in PPS. From this perspective, economic policy makers can recommend the promotion of commercial relations with EU countries, but also the support for attracting investment, which are a big driver of convergence of the Czech Republic to other EU economies.

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China's External Trade after Its Entrance into the WTO with the Impact on the EU

Lenka Fojtíková
VŠB – Technical University of Ostrava
Faculty of Economics, Department of European Integration
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
lenka.fojtikova@vsb.cz

Abstract
China has been a Member of the World Trade Organization since 2001. This enabled it to realize trade with more than 150 other countries in the world without barriers and discrimination. On the other hand, China made trade commitments about tariffs, tariff bindings and easing market access for products from foreign countries. It had an impact on the volume as well as the structure of Chinese trade. The object of the paper is to analyse how China's commitments in the WTO influenced China's merchandise trade in the period of 2001-2010 and what impact it had on the European Union.

Keywords: *External trade, tariff, tariff bindings, trade balance, WTO*

JEL codes: *F13, F15, F43, F53, P45*

1. Introduction

China is the leading exporter in the area of merchandise trade and the second biggest economy in the world at this time. Because of reformist policies that have started since the end of the 1970s, dynamic economic growth has been achieved for three decades. Reforms that contributed to a greater efficiency and faster productivity growth after 1978 included:

- Peasants regained control and management of their land. The farm household became the average production unit, employing 1.4 people on less than half a hectare. There were better prices for farmers and greater access to markets. The result was a big improvement in incentives and productivity.
- There was a huge expansion of small-scale industry, particularly in rural areas. The average size of a state enterprise did not change, but in the non-state sector it fell from an average of 112 to 8 employees per firm by 1995. Productivity growth was much faster in the non-state sector, which had lower labour costs.
- China made massive strides to integrate into the world economy. The state monopoly of foreign trade and the policy of autarkic self-reliance were abandoned. Foreign trade decisions were decentralised. Between 1980 and 1997 there was a five-fold devaluation of the yuan. Special enterprise zones were created as free trade areas. In response to the greater role for market forces, competition emerged, resource allocation was improved and consumer satisfaction increased (Maddison, 2007).

The role of external trade in achieving dynamic economic growth was boosted by China's entry into the World Trade Organization (WTO) in 2001. On the one hand China committed to reduce its own trade barriers; on the other hand China got free access to the foreign markets of the other WTO Members. The object of the paper is to analyse how China's commitments in the WTO influenced China's merchandise trade and what impact it had on the European Union (EU).

2. China's entry into the WTO

The World Trade Organization was founded on 1 January 1995 after almost fifty years of the existence of GATT (General Agreement on Tariffs and Trade) with the object to support free trade among nations. The WTO has 153 Members and covers developed as well as developing countries from different parts of the world. The WTO Members trade among themselves on the most-favoured nation principle (the rule of non-discrimination). Trade that is realised upon the WTO principles brings their members a more transparent and predictable environment.

China had been trying to enter into the GATT/WTO since the middle of the 1980s. Negotiations about China's entry into the multilateral trading system lasted 15 years and were concluded on 17 September 2001. Officially, China has been a member of the WTO since 11 December 2001. China agreed upon its entrance into the WTO to undertake a series of important commitments to open and liberalise its regime in order to create a more predictable environment for trade and foreign investment in accordance with the WTO rules. His main commitments included:

- China will provide non-discriminatory treatment to all WTO Members. All foreign individuals and enterprises, including those invested or registered in China, will be accorded treatment no less favourable than that accorded to enterprises in China with respect to the right to trade.
- China will eliminate dual pricing practises as well as differences in treatment accorded to goods produced for sale in China in comparison to those produced for export.
- Price controls will not be used for the purposes of affording protection to domestic industries or services providers.
- The WTO Agreement will be implemented by China in an effective and uniform manner by revising its existing domestic laws and enacting new legislation fully in compliance with the WTO Agreement.
- Within three years of accession all enterprises will have the right to import and export all goods and trade them throughout the customs territory with limited exceptions.
- China will not maintain or introduce any export subsidies on agricultural products (WTO, 2001).

The right of exclusive state trading for products such as cereals, tobacco, fuels and minerals was reserved and some restrictions on transportation and the distribution of goods inside the country were maintained. But many of the restrictions for foreign companies should be eliminated or considerably eased after a 3-year phase-out period. The protection of intellectual rights in trading should be implemented upon the Trade-related Aspects of Intellectual Property Rights (TRIPS) Agreement in full from the date of accession.

But not only China, but also the other WTO Members committed to phase-out protectionist practices against imports from China, such as prohibitions, quantitative restrictions or other measures inconsistent with the WTO Agreement.

2.1 China's progress in trade liberalization after its entry into the WTO

The progress of China in removing trade obstacles in the period of 2001, respectively 2002 to 2009 will be considered according to the level of tariff and non-tariff protection in China.

The commitments of China for market access to goods included to gradually eliminate trade barriers and expand market access to goods from foreign countries. China committed to bound all tariffs for imported goods at *ad valorem* rates (see Table 1). After implementing all the commitments, China's average bound tariff level should decrease to 15 % for agricultural products. The range is from 0 to 65 %, with higher rates applied to cereals. For industrial goods the average bound tariff level had go down to 8.9 % with the range from 0 to 47 %, with the highest rates applied to photographic film and automobiles and related products (WTO, 2001). But it should be noted that China's import tariff rates comprised not only MFN tariff rates, but also non-MFN tariff rates, special preferential tariff rates, general tariff rates and tariff-quota rates (WTO, 2010).

Table 1: Structure of MFN tariff in China, 2001-2009

	MFN applied					
	2001	2002	2005	2007	2009	Final bound rate
Bound tariff lines (% of all lines)	n.a.	100	100	100	100	100
Simple average rate	15.6	12.2	9.7	9.7	9.5	9.9
Agricultural products	23.2	17.9	14.6	14.5	14.5	14.6
Industrial products	14.3	11.1	8.9	8.8	8.6	9.1
Tariff quotas (% of lines)	0.9	0.8	0.7	0.6	0.6	0.6
Duty-free tariff lines (% of lines)	3.0	4.9	8.6	8.7	9.4	7.6

Source: WTO (2006, 2008, 2010)

Table 1 shows that China has progressively lowered its most-favored nation (MFN) tariff and reduced non-tariff barriers to trade since 2001. The overall average MFN tariff declined from 15.6 % in 2001 to 9.5 % in 2009. Although the level of tariff already achieved its final bound rate in 2005 and was even lower than the bound rate, in comparison with the United States, the European Union and Japan the MFN tariff in China is always high. The applied MFN tariff was higher on agricultural products than tariffs on industrial products the whole time, which is a typical phenomenon. Grains, tobacco, coffee and tea, cocoa and sugar, etc. belong to the most sensitive agricultural products in China and the rates went from zero to 65 %. Bound rates vary less on industrial products, from zero to 50 % (WTO, 2010). While in 2001 China enabled duty-free import only for 3 % of tariff lines, it was 9.4 % of tariff lines in 2009. It means that almost 740 products could be imported to China with a duty-free tariff in 2009. Although the overall average tariff rate has declined since 2001, there was a tariff escalation. While by 2005 there was a negative escalation between unprocessed and semi-processed products and an escalation between semi-processed and fully processed products (WTO, 2006), there was a positive escalation between semi-processed and fully processed products, and in some cases a negative escalation was recognised between unprocessed and semi-processed products by 2009 (WTO, 2010). Most goods were imported to China with a tariff rate between 5-15 % for the whole time (WTO, 2006; WTO, 2008; WTO, 2010).

Preferential tariff or “agreement” tariff rates were applied by China under various bilateral/regional trade agreements or arrangements (to the members of the Bangkok Agreement, to Pakistan, the members of ASEAN, and to the Special Administrative Regions (SARs) of Hong Kong and Macao, etc.). For comparison, preferential tariff rates were between 8.2 - 9.5 % in 2005 and between 2.5 – 8.9 % in 2009 (WTO, 2006; WTO, 2010). In addition, China offered special preferential tariffs unilaterally to the imports of some goods from least developed countries (LDCs) with which it has diplomatic relations. The number of China’s preferential trade partners has increased since 2001. Reduced or zero rates of customs duty were also available for imports by companies established in special economic or other special zones.

Although the tariff remains one of China’s main border measures, China has continued to use non-tariff border measures, such as import and export licensing, standards and other technical requirements, sanitary and phytosanitary measures. State trading is still used to manage trade in certain imports and exports of some agricultural products and crude and processed oil. Most state trading products are also subject to tariff-rate quotas. China’s export regime is characterised by various restrictions, notably prohibitions, licensing, quotas, taxes, and value added tax (VAT) on exports.

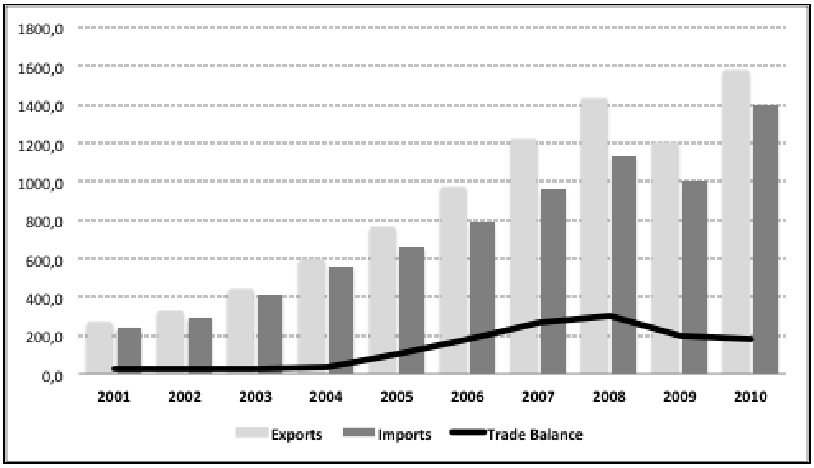
On the other hand, present changes in the institutional area of China’s economy (the tax reform, the reform of Customs transit system and the simplification of Customs procedures, the improvement of legislative framework for the enforcement of intellectual property rights protection, the entry into force of its Anti-Monopoly Law in 2008, etc.) contribute to the creation of a more credible and transparent area for international trade. China is also a Member of the WTO Agreement on Information Technology (ITA), which it joined in 2003 and applied to join the WTO Government Procurement Agreement (GPA) in 2007, and is to make a revised offer in 2010.

3. The impact of trade liberalisation on China's merchandise trade

Merchandise trade generally represents the biggest part of total external trade. It includes the two main groups of products, primary products (such as minerals, fuels and agricultural products) and manufactures (for example iron and steel, chemicals, machinery and transport equipment, textiles, etc.).

In the period 2001-2010, the value of Chinese export grew from USD 266.1 billion in 2001 to USD 1577.8 billion in 2010. On the other hand, the value of Chinese imports grew from USD 243.6 billion in 2001 to USD 1395.1 billion in 2010. It means that the merchandise trade of China was almost six times higher in 2010 than in 2001, but exports grew more dynamically than imports. The trade surpluses that China achieved in the period 2001-2010 were the result of this development. The biggest trade surplus was recorded in 2008 in the value of USD 298.1 billion, but the world economic crisis caused the decline of Chinese trade surpluses in the following years. Figure 1 shows the value of exports, imports and trade balance in 2001-2010.

Figure 1: Merchandise exports and imports of China, 2001-2010 (bil. USD)



Source: WTO (2002); WTO (2011)

More trade integration on the export side than on the import side is apparent from Table 2. The data in this table are not identical with the data in Figure 1 because they include exports and imports of not only goods, but also services. But it confirms that China was a more open and integrated economy in 2010 than at its entry into the WTO in 2001. In 2010, the share of exports and imports on the gross domestic product (GDP) of China was almost 30 %, respectively 26 %.

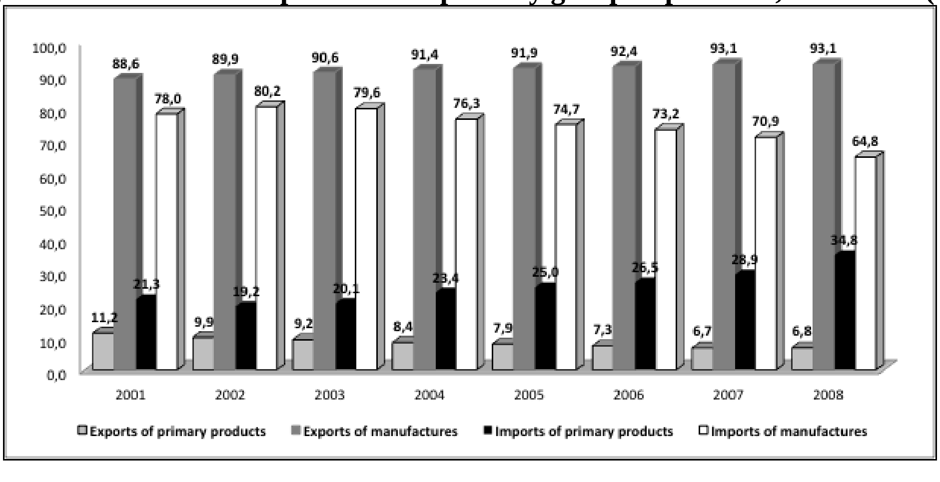
Table 2: China's trade integration, 2001-2010 (% of GDP)

	Exports of goods and services	Imports of goods and services	External balance on goods and services
2001	22.6	20.5	2.1
2002	25.1	22.6	2.6
2003	29.6	27.4	2.2
2004	34.0	31.4	2.6
2005	37.1	31.6	5.5
2006	39.1	31.4	7.7
2007	38.4	29.6	8.8
2008	35.0	27.3	7.7
2009	26.7	22.3	4.4
2010	29.6	25.7	3.9

Source: World Databank (2012)

The main subject of Chinese trade was manufactures in 2001-2008 (the data for the following years were not published yet). The exports of manufactures shared on the total Chinese exports by almost 89 % in 2001 and more than 93 % in 2008. The imports of manufactures shared on the total Chinese imports by 78 % in 2001 and about 65 % in 2008. Primary products shared on the total Chinese exports by an average of 8.4 % at the same time. The share of primary products, especially fuels, on the total Chinese imports grew from about 21 % in 2001 to almost 35 % in 2008. The shares of manufactures and primary products on the total Chinese exports and imports in 2001-2008 are presented in Figure 2.

Figure 2: Merchandise exports and imports by group of products, 2001-2008 (%)



Source: WTO (2002); WTO (2011)

Table 3 shows in detail the individual shares of manufactures on the total Chinese exports as well as imports. The main trading item is machinery and transport equipment. This product group is very extended and includes different products such as power generating machines, office machines and telecommunication equipment, automotive products, etc. These products have had an increasing significance for the Chinese economy, especially from the point of view of its exports since 2001. Iron and steel and chemicals also recorded a growth of their share on the total Chinese exports in the considered period. On the contrary, the biggest decline was recorded in the exports of clothing and other consumer goods. The imports of all manufactures, with the exception of other consumer goods, shared on the total Chinese imports in 2008 less than it was in 2001.

Table 3: Exports and imports of manufactures, 2001 and 2008 (% of total exports, imports)

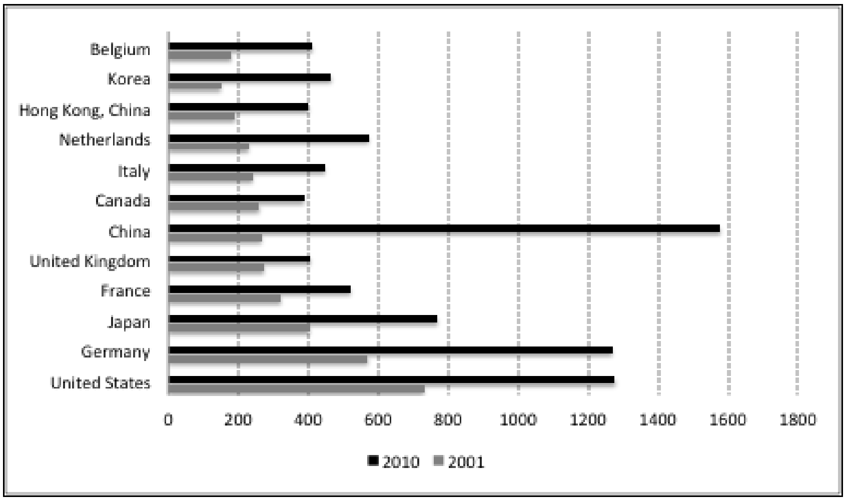
	Exports of manufactures		Imports of manufactures	
	2001	2008	2001	2008
Iron and steel	1.2	5.0	4.4	2.4
Chemicals	5.0	5.5	13.2	10.5
Other semi-manufactures	7.7	7.4	5.1	2.8
Machinery and transport equipment	35.7	47.1	43.9	39.0
Textiles	6.3	4.6	5.2	1.4
Clothing	13.8	8.4	0.5	0.2
Other consumer goods	19.0	15.0	5.7	8.4
Other	0.2	0.1	0.7	0.4

Source: WTO (2002); WTO (2011)

4. The impact of China's trade expansion on the EU

The increase of China's external trade was proved on the amplified position of China in world trade. While in 2001 China occupied the sixth position among the leading merchandise exporters with a share of 4.3 % on the world exports, it took the first position in 2010 with a share of more than 10 % on the world merchandise exports. In the period 2001-2010, China increased its export share in the world by 6.1 percentage points. Figure 2 shows the ten leading merchandise exporters in the world in 2001 and 2010.

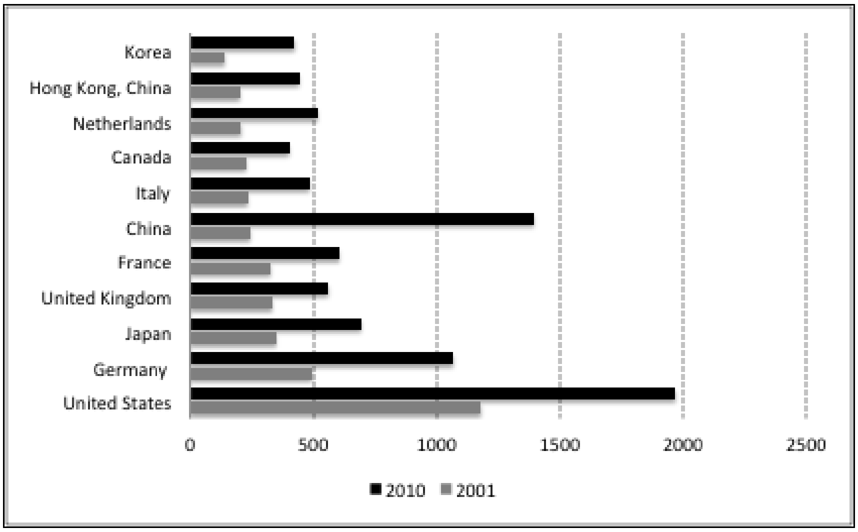
Figure 3: Leading merchandise exporters, 2001 and 2010 (bil. USD)



Source: WTO (2002); WTO (2011)

From the point of view of imports, China increased its import share in the world by 5.3 percentage points in the same period. While in 2001 China occupied the eighth position among the leading merchandise importers with a 3.8 % share in the world, it was the second position in 2010. The share of China on world imports was more than 9 % in 2010. Figure 3 shows the positions of the leading merchandise importers in the world in the period 2001-2010.

Figure 4: Leading merchandise importers, 2001 and 2010 (bil. USD)



Source: WTO (2002); WTO (2011)

The trade expansion of China in the previous years caused a decline of market shares of some of the main EU exporters and importers. In 2001, the value of merchandise exports as well as imports of Germany, France and the United Kingdom individually was higher than the value of Chinese exports and imports. But in 2010, China appeared before all of them with a higher value of trade and market shares on the world merchandise trade than these three EU member countries recorded individually.

China is now the EU's second trading partner behind the USA and the EU's biggest source of imports by far. The EU is also China's biggest trading partner (EC, 2012). The EU's imports from China are mainly industrial goods such as machinery and transport equipment and miscellaneous manufactured products. The EU's exports to China are also concentrated on these products as well as chemicals. The ability of China to increase exports more than imports is apparent from the EU trade balance with China that was in deficit for the whole time. In 2010, the EU's trade deficit with China was 3.7 times higher than it was in 2001. Table 4 shows that the EU recorded the highest trade deficit with China in 2008 and 2010.

Table 4: EU's trade balance with China, 2001-2010 (bil. EUR, %)

	Exports	**Imports**	**Trade balance**	**Total EU trade balance**
2001	30.1	75.9	-45.8	-42.6
2002	34.2	81.9	-47.7	8.1
2003	40.4	95.8	-55.4	-13.1
2004	48.2	127.5	-79.3	-63.1
2005	51.6	158.4	-106.8	-112.1
2006	63.6	192.4	-128.8	-172.2
2007	71.8	232.6	-160.8	-194.5
2008	78.4	247.9	-169.5	-255.1
2009	82.4	214.1	-131.7	-109.6
2010	113.3	282,5	-169.3	-159.9

Source: Eurostat (2012)

The EU supported China's accession into the WTO and commitments made by China in context of the accession into the WTO included improved access for EU firms to China's market. However, there are still outstanding problems such as inadequate protection of intellectual property rights, exports restrictions on raw materials, the maintenance of industrial policies and non-tariff barriers which may discriminate against foreign companies, etc. These barriers limited the EU exporters in their dispersion on the Chinese market.

5. Conclusion

External trade has remained the main motor of the Chinese economy after its entry into the WTO. China made progress in implementing its WTO commitments and has become a more open economy. The trade integration of China into the WTO contributed to increasing China's market share. It also negatively influenced the position of the main EU exporters, such as Germany, France and the United Kingdom.

The EU and China are the leading trade partners to each other. The main product category is machinery and transport equipment in their export as well as import sides. The EU's bilateral trade with China was connected with a trade deficit for the whole considered period. From this point of view, trade with China represents an important topic to which the EU devotes special attention. On the bilateral level, there is the EU-China High Level Economic and Trade Dialogue that has led towards more partnership and cooperation since 2008. The EU also uses the WTO as a multilateral forum for the solution of trade disputes and the adhering of China's multilateral commitments.

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Western Balkans on the Way to the European Union

Petra Gabrielová
University of Economics in Bratislava
Faculty of International relations
Dolnozemská cesta 1/b, 852 35 Bratislava, Slovak Republic
petra.gabrielova@euba.sk

Abstract
Article analyses selected aspects of the integration process of the Western Balkans into the European Union. First part deals with advantages that bring an integration process for the EU as well as for the new member states in context of further enlargement. Further this work identifies the Western Balkan region and describes the genesis of the concept of the Western Balkans, which is an artificially created name for group of countries in the south-eastern Europe. Definition of the region is not subject to geographical but political description, whereas its creation is closely linked to the European Union. Further this article deals with current position of the Western Balkan countries in the integration process, whereby the author focuses on the main issues of individual countries in relation with the Union. In the last part the article identifies the main socio-economic problems of the region that restrain their faster development and integration into EU. The article is concluded by summarizing the pros and cons of the further EU enlargement by Western Balkan countries.

Keywords: *Enlargement process, European Union, Western Balkans*

JEL codes: *F15, F59, O19, P52*

1. Introduction

Nowadays the European Union (EU) consists of 27 member states. Concerning the impact of globalization and emergence of new global actors in world economics, EU should not stagnate in position of closed unit and terminate integration process of new member states. Enlargement is considered to be one of the most powerful political instruments of the Union and therefore it is even in these times of crisis a crucial issue on the European agenda. And region of the Western Balkans represents currently the most significant priority within the scope of EU integration process. Eight European countries are currently in the position of candidate or potential candidate for EU membership and six of them belong to the Western Balkan region.

From the security aspect, region of the Western Balkan belongs to priority spheres of EU interest for a longer period of time. These countries have been in recent history marked by several armed conflicts that have left not only death toll but also many economic and social consequences. Remains of these conflicts are recognizable even in these days and as these countries create south-eastern border with several EU members, it is in the interest of EU to preserve peace and stability in its immediate neighbourhood.

On the other hand, the question of future economic development of Union and to it related matter of economic advantages of further enlargement are becoming very actual issues. Currently EU deals with many economic problems directly linked to ageing of population, high manufacturing costs (including labor costs) comparing to fast developing countries like China and India, oversaturated markets and artificially stimulated demand. These factor have a direct impact on the competitiveness of the EU members and therefore also on their growth potential, especially in the times of financial crisis and economic downturn. Therefore EU should continue in enlargement process in order to acquire a new growth potential. Enlargement of EU in 2004 and 2007 brought an enriching opportunity to European Union and its citizens. EU strengthened its position in the world economics and politics and became more competitive and capable to defend its interests on the world stage in the era of globalization. European Union became one of the largest integrated groupings in the world with population of 500 million inhabitants and economy representing one third of the global GDP, one fifth of the global trade in goods and more than a quarter of services in the world.[5]

The advantages arising from the integration of the Western Balkans are more than evident. First of all it represents a fast growing market of over 23.5 million[6] consumers that is right at the doorstep of the EU. Second important factor is that labour costs are significantly lower, at 30-70% of levels in the Central and Eastern Europe, not even mentioning Western Europe. Some corporate tax regimes in the Western Balkan region are as low as 10-15%, which is considered very competitive. There is abundant availability of skilled and unskilled labour in specific sectors with an excellent technical skills and multilinguality. Further there is availability of raw materials and suppliers with experience in international business. And at last but not least, overall costs in manufacturing are lower than in the most of CEE countries.[7]

2. Western Balkans and the European Union

2.1 Western Balkans concept and European Union

The concept of the Western Balkans appeared for the first time after the breakup of Yugoslavia and subsequent Balkan crisis and indicates narrower range of countries in the Balkan region. It concerns countries of former Yugoslavia except Slovenia plus Albania. It should be emphasized that the Western Balkans concept offers rather political than geographical definition of the region in South-Eastern Europe. This region was not created as a result of its own internal dynamics, but on the basis of an external impact of the international community with the aim of the securitization of situation that arose after the breakup of Yugoslavia. According to Buzan and Waever (2003) was the development in the area of the former Yugoslavia affected by both internal and external factors. The fundamental elements of internal dynamics were

[5] DALIMOV, R. (2009). The Eu Economic Integration: 'Pros' and 'Cons'. *Current Research Journal of Social Sciences* 1(2): 14-15, 2009. Tashkent: Maxwell Scientific Organization. ISSN: 2041-3246

[6] Eurostat (2012). *Total population, Candidate countries and potential candidates* [online]. [cit. 2012-4-24].

[7] THE WORLD BANK GROUP/MIGA (2006). *Investment Horizons: Western Balkans* [online]. [cit. 2011-12-4]. Washington D.C.: The World Bank Group.

mainly ethnic conflicts stemming from long-term tensions between Serbs, Croats and Bosnians, whose relations could be in different stages of historical development rated as hostile. Buzan and Waever, however, attributed a key impact on development of the region to external actors, which have in a considerable way interfered in internal affairs. In their view, the international community tended to correct the internal dynamics and moderate the effects of internal interactions. In this context, however, was very important also the interaction between internal actors in the former Yugoslavia and external powers. For example Croatia expected significant support from the EU and NATO considering the close relations with Germany; Serbia, based on the historical and cultural connections, was hoping for help from the Russian Federation; and the Bosnian Muslims and Albanians in Kosovo turned to the United States. [8] After the deterioration of security situation in the region in context of armed conflicts, the international community and mainly Western states have decided to intervene in the development of these countries.

The European Union started engaging in the situation in Western Balkans only after the end of the fights in former Yugoslavia. During the ongoing war was Europe trying to contribute to peaceful settlement of conflicts with its diplomatic instruments, but it did not reach effectiveness and success of such organizations like the UN or NATO. American authors consider the fact that the EU failed to prevent the outbreak of armed conflict and the disintegration of Yugoslavia as a major setback to its foreign policy ambitions. According our opinion, it has to be noted that during the first outbreak of armed conflicts on the territory of Yugoslavia, the process of European integration was only at the stage of European Economic Community, and therefore on the level of economic integration. EU became a political actor in 1993 under the Treaty on European Union, which established the Common Foreign and Security Policy (CFSP) "in order to promote peace, security and progress in Europe and the world."[9] Although the signing of the Maastricht Treaty did not mean an absolute creation or beginning of cooperation between states in this field[10], it offered a substantial transformation of its status and functioning. The CFSP has allowed the EU to speak with one voice through well-defined institutions and instruments. Thus in the time of formation of the EU and its CFSP were wars in the territory of Croatia and Bosnia and Herzegovina already going on.[11]

It was a conflict in the Western Balkans that had a significant impact on the development of CFSP and emergence of Common Security and Defence Policy (CSDP). CSDP was founded in 1999 as a purely political project for cooperation between member states in the military field and in the field of coping with crises. The aim of the CSDP was not creation of European army, but “the establishment of such military and civilian capacities, together with the institutional background, that would

[8] BUZAN, B. – WAEVER, O. (2003). *Regions and Powers: The Structure of International Security.* Cambridge: Cambridge University Press. 570 s. ISBN 978-0-511-07663-3

[9] *Treaty on European Union (92/C19/01)*

[10] CFSP was based on European Political Cooperation (EPC) established by the EEC members already in 1970. EPC was forum for consultation of opinions on most important issues of international relations

[11] KOZÁK, T (2004). Spoločná zahraničná a bezpečnostná politika EÚ. 1. Vydanie. Bratislava: ŠEVT. 32 s. ISBN 80-887-0762-5

enable the Union quickly respond to crisis situations."[12] Establishment of CSDP was largely prompted by the inability of Europe to deal with the Yugoslav crisis, which was taking place in their immediate vicinity. Although there was foreign policy cooperation between member states under the CFSP, at that time was the Union lacking other than diplomatic instruments and thus had to rely on the NATO. The position of the EU in the area of former Yugoslavia thus became important only after the reform of foreign and security policy, i.e. after the end of the Balkan crisis. Union then argued its involvement in the Western Balkans mainly by the interest in stabilizing the security situation in its immediate neighbourhood, since the region is surrounded by EU member states. Unstable situation associated with emigration and organized crime, which occurred after the breakup of Yugoslavia, was taken as a direct threat to Central and Western Europe. In this context, the EU set a priority to promote the development of peace, stability, prosperity and freedom in the countries of the region. In order to achieve these objectives, the new strategy was created, and its essential characteristic became a regional approach and a primary tool was stabilization and association process. For this purpose was artificially formed the Western Balkans in its present form of the Balkan subregion.

The European Union (2008) defines Western Balkans as all states in the South-Eastern Europe which are not members of the European Union. Thus according to this criterion we include in the region following group of countries: Croatia, Serbia, Montenegro, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia (FYROM), Albania and Kosovo under UNSCR 1244/99.[13]

2.2 Western Balkans in the integration process

Enlargement process represents the main mean of fulfilling the ideological project of a united Europe, which stood at the beginning of the integration process. There is no doubt about the geographical belonging of the Western Balkan countries to Europe, no matter which interpretation of the European continent we are taking into account, whether according to the narrowest interpretation Europa sensu stricto[14] or according to the membership in the Council of Europe. Definition of Europe in relation to enlargement does not reflect only geographical point of view, but also historical, cultural and value elements. Also on the basis of these criteria belongs the Western Balkans into Europe. In addition, the integration of the region would "fill the gap" on a map of the EU, as the Western Balkans constitutes the only territory in Europe outside the EU, which is completely surrounded by the member countries.[15]

The Western Balkans is a key part of South-Eastern Europe that comprises a group of diverse countries at different stages of accession to the Union. Croatia is at the doorstep of EU accession, three countries of the region (Macedonia, Montenegro

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[12] LIPKOVÁ, Ľ. (2011). Európska únia. 1. vydanie. Bratislava : Sprint dva. s. 388. ISBN 978-80-89393-33-6

[13] EUROPEAN COMMISSION (2008). *Western Balkans: Enhancing the European perspective*. COM(2008) 127 final. Brussels: European commission. 23 p.

[14] Countries situated geographically in Europe with greater or more significant part of their territory

[15] LIPKOVÁ, Ľ. (2011). *Európska únia*. 1. vydanie. Bratislava: Vydavateľstvo Sprint dva. s. 388. ISBN 978-80-89393-33-6

and Serbia) have currently candidate status and other Western Balkan countries are for now only potential candidate countries (Bosnia and Herzegovina, Albania).

Negotiation process with Croatia has reached its final stage as the country closed last four chapters in June 2011 and European Commission has appointed provisional date of accession on 1st July 2013. Treaty of Accession between Croatia and EU was signed in December 2011, when Croatia finished six years lasting accession negotiations.[16] Case of Croatia demonstrates to all Western Balkan countries that accession can become a reality as soon as all required conditions are fulfilled.

Macedonia obtained candidate status already in 2005, but accession talks have not been opened yet. The main reason is twenty years lasting name dispute between Macedonia and Greece. Object of the dispute is that Macedonia is also name of the northern Greek province and Greece is afraid that if it would recognize the country under its constitutional name, it would mean that Macedonia could acquire territorial entitlement on this Greek province. On the ground of this bilateral issue Greece blocked accession process of Macedonia to the NATO in April 2008 and afterwards also opening of accession talks to the EU in December 2009. European Council has decided to postpone opening of Macedonian accession negotiations till the dispute settlement is reached. Considering the progress of mutual negotiations between Greece and Macedonia in the last years, it might take longer time. Therefore it is very difficult to estimate if and when Macedonia could possibly enter the EU.[17]

Integration process of Montenegro is for now the most progressive one. Montenegro obtained candidate status in December 2010, only four years after gaining independence from Serbia and two years after submission of official application for EU membership. Date of accession talks opening have not been appointed yet but Montenegro has very good prospect of early start of accession negotiations. If the country will continue in adoption of reforms and measures in key areas, EU could open the accession talks already in June 2012. EU underlines that Montenegro need to demonstrate concrete results in consolidating the rule of law, and particularly in judicial reform and fight against corruption and organized crime.

Serbia has made a very significant progress in last two years, especially regarding fulfillment of specific conditions of accession. Firstly we can mention positive changes in position of Serbia towards solution of Kosovo issue, as the country has proven certain degree of flexibility to the text revision of OSN resolution on declaration of Kosovo independence. Significant step in this matter was also opening of technical negotiations between Belgrade and Pristina. This along with effort put into adoption of substantial reforms have move Serbia forward in the integration process and the country obtained candidate status in March 2012.

Albania submitted official application for EU membership in spring 2009 and since then there was almost no progress in mutual relations between the Union and Albania. The main problem behind this is difficult (almost stand-off) political situation lasting since the last general elections that were held in June 2009. But Albania also

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[16] VOGEL, T. (2011). Croatia to join EU in 2013. *European Voice*.
[17] BalkanInsight (2009). *What's in a name?* [online]. Skopje: BalkanInsight Macedonia.

has other outstanding problems in addition to settlement of political stability. The most important issues on which the country has to focus are for example strengthening of public administration and judiciary, improvement of public services and infrastructure or reformation of education system.

Bosnia and Herzegovina has made only the first step in its integration process, i.e. it has signed Stabilization and Association Agreement in 2008 (negotiations on this agreement were launched in 2005). Problem of this country is relatively high autonomy of its two main entities what causes difficulties in adoption of key reforms. Therefore the country has to first of all solve the question of political stability and internal division. Croatian minority asks for creation of triple federation, thus separation from Bosnian-Croatian federation and acquiring status of third federal subject within the Bosnia and Herzegovina. On the other side Muslim part of population calls for centralization of the country and total dissolution of federation and finally Serbian minority insist on status quo. From this situation arises the real threat of country disintegration, if the Serbian part would declare independence and become part of Serbia, followed by Croatian population that would join Croatia, leaving Muslim Bosnians as the sole citizens of Bosnia.[18]

There are still many challenges that the Western Balkan countries have to face on their way to the EU. They all need to focus on good governance, improve the rule of law, speed up economic reform and improve their capacity to adopt and implement the acquis. Furthermore most of the countries are facing some individual problem, solution of which is a main condition in the EU integration process. We can mention couple of examples like the governance of Bosnia-Herzegovina, the name dispute between the Former Yugoslav Republic of Macedonia and Greece, cooperation of Serbia with ICTY or open bilateral issues over Kosovo's status.

3. Selected aspects of socio-economic situation in Western Balkans

The opening of the Western Balkans in the last decade has fundamentally changed the political and economic landscape of the European continent. Countries of the Western Balkan have made a huge progress in economic transformation and democratic consolidation and the region have developed into a marketplace with dynamic growth. But the region is in many ways still behind the CEE transition economies - the private sector in the Western Balkans is still not developed, the public sector is only partially reformed, and the informal economy is more evident. It has to be noted, that he region is not a homogenous group of countries, whether talking about political or economic situation.

Over the past ten years have all Western Balkan countries been able to achieve macroeconomic stability. After the end of armed conflicts accelerated economic growth across the region, although the process of transition to a market economy was in some countries considerably delayed due to the difficult political conditions. From an economic point of view was the last decade until the outbreak of the global crisis a

[18] BROWN, A. – ATTENBOROUGH, M. (2007). *EU enlargement: Western Balkans.* London: House of commons library. Available: www.parliament.uk. ISSN 1368-8456

very good period for almost all Western Balkan countries. Except Macedonia, all the countries of the region reached high annual growth on average of 5% of GDP.[19] The trend of dynamic growth in the region was mostly associated with political and economic stabilization after overcome of the conflicts.

In the Western Balkans represents GDP per capita about 35% of the average of EU-27 GDP per capita, but there are significant differences between countries. On one end of the spectrum is Croatia with GDP per capita similar to that of the CEE countries (61%). Montenegro reaches 41% of EU-27 average, a value comparable to the member countries of the last EU enlargement in 2007 - Bulgaria (44%) and Romania (46%). Economic development of Montenegro has been driven mainly by foreign investment incoming to the country because of the expansive process of privatization. Within less than six years Montenegro managed to belong to the European countries with the highest FDI per capita. On the other side of the spectrum is Albania, which is practically a developing country and its GDP per capita is only 28% of EU-27 average. The level of economic development in Bosnia and Herzegovina is also very low and in comparison with the EU it reaches only 31% of EU average. Its low economic development is very closely linked to the country's dysfunctional political arrangement, which is the cause of the absence of a single market between the individual entities or very high government spending to large state administration. Serbia (35%) and Macedonia (36%) are with their level of GDP per capita close to the average in the region. However, the market potential of these countries is considerable, particularly with regard to geographical location, enabling them to become an area linking Western Europe with Greece, Bulgaria and Romania, or even further with Turkey and Asian countries.[20]

One of the most serious economic problems of the Western Balkans is high unemployment, whereas labour market situation is mainly influenced by the initial conditions of the region. Already in 1990 (before the military conflicts and the beginning of process of economic transition) were countries in the region having high levels of unemployment: Kosovo 40.8%, Macedonia 23%, Montenegro 22.9%, Bosnia and Herzegovina 21.2%, and Serbia including Vojvodina 16.7%. The unemployment increased even more due to the Balkan crisis and restructuring process associated with the transition to a market economy. By that time is unemployment gradually decreasing throughout the region, but its level still remains high. In the most countries of the region is unemployment substantially higher than the EU average. Even the difference between the countries in the region and two EU states with the highest level of unemployment, Bulgaria and Romania, is considerable. Unemployment in Kosovo (43%), Bosnia and Herzegovina (39%) and Macedonia (34%) is among the highest in the world. In Serbia is, despite the ongoing economic reforms and growth, jobless almost 17% of the population. In this context is especially problematic long-term unemployment, proportion of which is considerably higher than in the transition economies of CEE. In Albania, for example, are 90% of the people without work

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[19] KATHURIA, S. (2008). *Western Balkan Integration and the EU: an Agenda for Trade and Growth*. Washington, D.C.: The World Bank. 184 p. ISBN 978-0-8231-7472-6.
[20] Eurostat (2011). *GDP per capita, consumption per capita in PPS* [online]. [Cit. 2012-1-6].

unemployed on the long-term basis and even other countries like Macedonia, Bosnia and Herzegovina and Montenegro are not in a much better situation - the proportions of long-term unemployed in these countries are around 80%. However, high level of formal long-term unemployment does not reflect fully the current situation in the market, forasmuch as certain part of this amount is either working at home or informally. But real long-term unemployment is still high, especially among certain groups such as refugees, displaced persons and war veterans, but also among those who are seeking their first job or were released from work. According to UNDP are sources of high unemployment relatively high wages and rigid employment policy.[21]

Employment structure in the Western Balkan region has in the last ten years undergone a fundamental change. As in other CEE post-communist countries, shifted the labour force from agriculture to manufacturing and services. In all countries of the region represents share of the services on GDP at least a standard level of the Western European countries (60% of GDP). However, in some areas such as Bosnia and Herzegovina or Kosovo, where agriculture accounts for 20% share on GDP, the primary sector still employs a significantly higher proportion of the population than in developed countries. The structure of the labour market, however, changed significantly also with respect to the ownership relations, where we can see a shift from a high proportion of public sector to dominance of private sector. Employment in the private sector is on the level of around 60-65%. Among the persistent problems in the area of employment can be included also gender inequality and youth unemployment. All countries in the region show lower levels of female employment, which is in our opinion related to the historical and cultural aspects of society that still maintains the patriarchal character. High level of youth unemployment is a problematic issue for a long time and an average employment rate of young people aged 15 to 24 years is only 20%.[22]

The Western Balkan countries have suffered substantial losses of population (and therefore also workforce) during as well as after the war years, when many people emigrated. According to estimates emigrated from the region since 1989 almost ten million inhabitants. More than a half of them emigrated abroad permanently; about 3 million immigrants are living abroad for a long time but admit option to return home and around 2.5 million have after a certain period, mostly at the end of open warfare, returned back to their country of origin.[23] The biggest challenge that these countries have to face in this context is “brain drain”. For the last twenty years is the majority of college-educated workforce looking for opportunities on foreign markets, mainly in the EU countries.

[21] United Nations Development Programme (2010). *SME success crucial to Balkan growth* [online]. [Cit. 2012-2-14]. Bratislava: Bratislava Regional Centre UNDP.
[22] VIDOVIĆ, H. et al (2011). *Developing Efficient Activation Approaches and Identifying Elements for Regional Cooperation in the Western Balkans*. In Research Report no. 374. 215 p.
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4. Conclusion

Enlargement policy is one of the most powerful tools of the EU. Enlargement process contributes to higher prosperity and growth opportunities, to increase of connectivity of the transport and energy routes, as well as to the good reputation of the EU in the world. Integration of CEE countries into the EU helped them in transformation into modern, well-functioning democracies with market economies. Nowadays, integration is almost universally recognized as the key strategy for achieving the twin goals of peace and prosperity in the Western Balkans. EU officials generally agree that the region has a clear European perspective, regardless of the ongoing re-ordering in the EU, as well as the economic and financial crisis.

The Western Balkans has been for a long time faced with a number of controversial economic and political issues that might affect security, stability and prosperity in the region. In the past decade, the western Balkans undoubtedly made major step in the process of democratization, security stabilization and economic reforms, but there are still many challenges to face. For most of the Western Balkan countries is nowadays the main priority to establish functioning state institutions and well managed state administration. Unemployment still remains high, and further reforms are needed in the areas of employment and social policy. Problems with high level of corruption, organized crime, political instability or bilateral disputes are still present and it seems that their solution requires longer period of time. On the other side, the Western Balkans has a lot to offer in the light of lower manufacturing costs, new market opportunities and geographical position.

European integration process has significantly slowed down and became more conditional after last two waves of enlargement. This has influenced also integration process of the Western Balkans, which lasts much longer than ever before and during which additional conditions are given to individual countries (cooperation with ICTY, settlement of bilateral disputes and other). There are two main reasons for this change. First of all, EU has to solve its own problems before realization of another enlargement (the general economic crisis, the implementation of the Lisbon Treaty, the new personnel and institutional settings within EU). The second reason might be a certain amount of caution as regards the possibility of repeating the case of Romania and Bulgaria which joined the EU without meeting all the necessary political and economic criteria. And exactly the low level of preparedness of the Western Balkan countries is the main reason for their slow integration to the EU.

From the EU´s point of view, fast integration of the Western Balkans could bring more problems than advantages. Union already deals with problematic economic situation in several member countries and there is not much of a space and financial reserves for supporting potential newcomers. And according to the level of economic development of the Western Balkans countries, they would have a right to extensive use of resources from structural funds. Another threat for the EU could bring the opening of the borders and markets for the Western Balkans citizens. Union has already experienced a huge wave of immigration from the region during the wartime in 90s and also after the visa liberalization in 2009. Integration of the Western Balkan countries could cause another large wave of immigration, bringing thousands of legal and illegal workers to the Western European countries. What could be even more serious problem connected to the inclusion of the Western Balkans to the Schengen area, is potential expansion of organized crime and ethnic or religious extremist groups in Europe. Western Balkans is from the security point of view still one of the most unstable parts of the Europe with highest levels of corruption, wide network of organized criminal groups and presence of many right-wing extremist groups and political parties. All these factors are remains of the difficult political and economic situation during the wartime and their elimination represents one of the main conditions in the integration process to the EU. We have to admit that there have been a significant improvement in the last decade, but these issues are still present to a great extent and represent a threat to the member states.

In the economic aspect can be integration to the EU a considerable threat also for the Western Balkan countries. If these countries entered the EU common market unprepared, they would expose domestic economy and social structure to huge external influence of strong economies and modern media. Due to less developed economies, the countries of the region would be in the position of pronounced risk from the international economic competition, in which they could be totally colonized and assimilated. Current real and nominal convergence of the economies in the region is very low, domestic labor force is not trained to follow the trend of technological advancement and current total standing of the countries and the domestic political environments are for now not fully conductive to develop the competitive economy. According to Democracy index of the Economist Intelligence Unit (2011) is none of the Western Balkan countries considered to be a full democracy. Three countries of the region – Serbia, Macedonia and Montenegro were classified as flawed democracies and the rest of the countries – Albania and Bosnia and Herzegovina were included in the category of the hybrid regimes.[24] Considering this we can state that even though all the Western Balkan countries have made a huge progress in the sphere of political and social development, the region still face the problems with fragile democracy and political stability. And according to our opinion, solution of the internal problems should be the first and major step for the all candidate and potential candidate countries, when they want to successfully enter and in the future also prosper in the European Union.

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EU Common Agriculture Policy – Economic and Social Rural Development

Ľubica Harakaľová
Alexander Dubček University of Trenčin
Študentská 2, 911 50 Trenčín, Slovak Republic
lubica.harakalova@tnuni.sk

Abstract
Financial tools of European Union's Common agriculture policy has become an important tool how to achieve the CAP goals associated with EU CAP economic goals but particularly with achieving the social EU CAP goals. By means of CAP reforms the I. and II. Pillar of CAP have been defined which are oriented to rural development. From this term we can understand rural economy development and rural infrastructure, services, employment of population living in rural areas and mainly the living standard equalization of rural population with the urban population. Higher income in agriculture sector by means of I. pillar has impact on higher income of population followed by their higher living standard. Injustice in direct payments allowance, as main CAP financial tool, is present in farmers´ economic and social aspects in new and old EU member states.

Keywords: *Common agriculture policy, rural development, I. and II. Pillar, living standard, direct payments*

JEL codes: *E24, J21, J50, Q18, P25*

1. Introduction

CAP has been one of the main policies of European Communities since 1958. The main reason of its origin was to secure the agriculture production and smooth supplies of foodstuff to population of European Communities. Its creation has had not only economic but also political-social reasons. From the economic reasons the most important was to maintain the price stability in the sector and from the political and social ones it was mainly to preserve the employment level, population in the rural areas, income stabilization of rural population as a way how to achieve compatible living standard of rural and urban population. From the beginning of European integration process the agriculture sector has played the very important role.

World trade liberalization market opening process the farmers in EEC had to face to tough competition coming from the countries with better climate conditions (Brazil, Argentina, Australia, New Zeeland), and technologically advanced countries (USA) and sell their products at the world price level. That kind of price was in average lower than production costs of farmers in Western European countries. Farmers´ wages in agriculture sector has dropped down deeply under the average wage inindustry sector what was creating the social and political tension. In 1959 the French agriculture sector was employing 26,6 % workers of all labor, in Germany 17, 9%, Italy 39,8 %, and Netherlands 12,4 %.

In democratic society the agriculture policy is determined by a set of factors sometimes with different competitions and interests. There are mainly farmers, their interest groups and professional associations, political parties founded as a support of agricultural community interests, unions, but also representatives of farmer's favoritism opponents and forming particular privileged class. The policy goal is to harmonize the interests of governments, parliaments, political parties, academic and research institutions and others involved in private and public sphere, on national and international level. Those interests are later confronted with producer interests, distributors, traders, consumers and professional organizations acting in particular sector. To harmonize all of these interests is very difficult in agriculture sector with regards of specific status and multifuncionality of agriculture sector within the national economies of particular EU member states.

Agriculture sector is inseparable part of the national economy even if it does not count among determining sectors affecting the country´s economic growth rate fundamentally. The majority of developed countries form just a small part of gross domestic product. In 2010 the share of agriculture on overall country GDP for example in Germany 0,9 %, in France 1,6 %, v Netherlands 1,9 %, while average of EU-27 was 1,7 % of agriculture GDP share on overall EU-27 GDP.

Its main importance is to secure state food security and more and more important is its role in landscape/regional, ecological, social and tourist development activities. Agriculture fulfils two functions – production as its basic function, it means production of price accessible, first-rate and wholesome eatables for population and nonproduction function, fulfilled in the areas such as natural resources melioration and protection, country culture style preserving, employment and rural structure population stabilization.

In present agriculture status its multifunctional mission is present more and more, especially in European Union countries. Its main functions present *production functions* (groceries, resources, energy source), *regional functions* (population, infrastructure, local services, added value, employment), *social functions* (labor, service, culture), *ecological functions* (landscape development, garbage recycling), *functions in tourism* (agricultural tourism, agricultural infrastructure). Agricultural sector has special features unlike other sectors of industry. Production cannot be planned because it depends on many effects – climate, elemental, geographical. From the economic point of view the agriculture is a sector in which products of primary sector are made characterized by low price demand elasticity thus the price stability assignment is fundamental for macroeconomic stability of the whole national economy.

Special part or CAP is rural development programs associated with necessary rural population maintenance and family farms preserving. Even EEV founders had big plans for „the tightest link among people in Europe“, while big part of population was employed in agriculture. While signing the Roma´s Treaty, every fifth citizen in Europe lived in agriculture farm. At present Europe handle the population outflow from rural areas to urban agglomerations where this social population group meets new social problems (housing issues, unemployment, insufficient mobility on labor market due to the education level and content). CAP faces the new challenges such as rural population preserving or stopping the rural population outflow. The EU policy confirms the importance of rural localities. More than 56 % of population in EU 27 member states lives in rural areas covering the 91% of Community territory. Unlike in the past, the rural areas support is one of the current CAP priorities. Important role of this CAP issue is to balance the disparities between the rural and urban areas what is the way how to eliminate the differences between backward and developed regions.

By formulating CAP goals we came out of common policies adapting in terms of European integration and European economic relations at that time. Authors were coming out of complex point of view on economic sector taking into account its multilateral connections on other economic policies areas. By goals setting we took into account also economic, social, and political goals. From economic goals the most important one was to increase the agriculture productivity, from social goals – to secure the proper living standard of farmers and its stabilization, economic stability of rural areas and to secure the proper prices of agricultural products for consumers. Simultaneously those goals matched with general goals having been declared by European Community founders and those goals were justice, freedom, prosperity and security.

The political goals were indisputable because farmers created significant electorate in European developed countries and other population have always been sympathetic to farmers.

2. Problem formulation

The Common agriculture policy origin and realization has got to do with *economic and social goals* achievement. Economic goals include:

- to increase agriculture productivity by means of technical modernization to secure the rational agriculture production development and production factors effective usage (mainly human resource as well as capital) what should make the EC agriculture competitiveness even better,
- to secure the farmers against prices fluctuation (one of the CAP goals is to preserve the adequate farmers' living standard even by guaranteed prices what would mean their lower profits in case of swift drop down of agricultural products prices) and by effecting demand side inelasticity and by producers structure (big amount of small producers being not able to affect the product price).

The Common agriculture policy *social goals* achievement can be characterized also as enforcement of political goals of particular interest groups and associations. It is necessary to stress that farmers belong to the important electorate basis, they have many supporters in other voters from other professional groups, and politicians have always been trying to gain this social group.

Social goals include:

- to assign the relevant living standard of agricultural community by means of increasing of farmers individual revenues,
- to assign the stable farmers living standard,
- to assign the economic stabilization of rural areas as well as their population preserving,
- to assign the suitable prices of agricultural production for consumers.

By the 30th of June 1962, when CAP emerged, following goals have been started to enforce:

- *freedom achievement* – space for formal and material human being development, households material development, enterprises, interest enforcement of lobby groups and professional associations, organizations, unions,
- *justice* - within the requirements of performance and reward, principle of chances equality on labor market, principle of justice within the requirements of living minimum assignment, minimum wages and so on.
- *security* regarding the agricultural production risk solving, trade, crisis, conflicts and so on,
- *prosperity* – satisfying the human needs, firms, sectors, society, adequate of production, living standard, working space and environment and so on.

The more and more frequent question is how to achieve prosperity, because despite different forms of subsidizing this goal has not been fulfilled yet. Even the meaning of the word prosperity is arguable. One of the factors is that average revenues in agriculture sector belong to the lowest in whole EU. Rural population living standard is generally lower than urban population living standard (average GDP of rural areas in EU member states creates 69% of average EU GDP, but GDP of rural areas in EU new member states creates has formed just 38% of EU- 27)

Generally characterized CAP tools have been gradually defined as two CAP market tools pillars.

The first pillar includes market mechanism realized by means of *common market organization and direct facility support.* Particular measurements include:

- *"decoupling" (single payment scheme - SPS)* – this system means separation of payments from production. Instead of several payments farmer gets one payment. The goal of this measurement is to decrease production value that was too high with direct link regarding the subvention. Farmer in member state has the possibility of number of claims for single payment that reflect the supports paid during the reference period and number of cultivated hectares, where he has the right for direct payments during the same period. Farmers using the single payment can determine their production regarding the market needs while they will get for sure the same support sum as in previous period regardless what they produce. This mode is called *historical* and is enforced in Austria, France, Greece, Belgium, Ireland, Portuguese, Netherlands, within

United Kingdom in Wales and Scotland. If reference sums are calculated on regional basis, ergo supports are calculated on the basis of supports already paid to farmers in particular region during the reference period, the *regional* model is used. It means that the same sum per hectare is paid to all farmers in that region. This model is used in Slovenia and Malta. Member states can use also a hybrid model what means that they can use different calculation ways in particular regions (f.eg. United Kingdom). But new member states did not have any historical reference how to use the basis to determine the single payment; the single payment per hectare scheme has been introduced. This scheme needs the payment of single sums per hectare of agricultural land till the high of state ceiling arising from accession treaties, with gradual rising during the transitive period till support settlement granted to 12 new member states at the support level of EU-15.

- *production based support scheme* – preserve so-called special support schemes still obligated to production
- *cross-compliance - C/C* - meets the level of direct payments to assert environmental, health and considerate treatment with animals' requirements.
- *system of compulsory modulation and budged discipline* – the goal of this measurement is to shorten the direct payments about 3% (2005 y.), 4% (2006) and 5% in next years to benefit of rural development. It is about gradual financial cut down from the CAP I. Pillar (direct payments and market regulations) regarding those particular percents and their shift into the II. Pillar for rural development support. The aim is to eliminate the financial aid imbalance when 80% of CAP financial aid leads to 20% of farms. On the basis of this system member states will get subvention of 1,48mld. EUR for rural development in 2007 – 2012. Within this system the issue will be the quality and security of groceries, new technologies of food processing and considerate treatment with animals, also young farmers will be supported, small processors and producing groups. Budged discipline system is enforced due to I. Pillar expenditures preservation within the annual budget limits determined in many financial outlooks.
- *advisory system installment* – introduces so-called audit in order to find out the proper enforcement of norms and procedures in production processes and how the standard system of „cross/compliance" is respected.
- *integrated system of administrative and control system (ISACS)* – each member state is obliged to create this kind of system because on the basis of created database the subsides can be provided to farmers.

Second pillar emerged along with the CAP reform within the Agenda 2000 and reform from 2003 and includes intensive rural development support in order to set up a model of European agriculture associated with balanced rural development.

Important financial source to stronger enforce new attendant measurements has become the financial sources shift from the first CAP Pillar into the second one via so-called modulation.

Political changes in central and Eastern Europe in turn of 80´s and 90´s in 20th century have affected all areas of economic and social event in Europe; of course the agricultural sector in ES has been touched as well.

In terms of CAP reforms the status of rural area as a center of farming production has been underlined while by means of reform steps realization the social status of rural population has been improved and quality of rural life has been increased. One of the main reasons has been stopping the rural population shrinkage and its relocation into urban areas. Through the structure subsidization changes the financial sources has begun to flow into the rural development and the financial tools focused on rural support have been improved.

On the contrary, in previous socialist countries the existential problems of farmers have been solving, who in the short period of time have been caught in the market economy from the previous centrally planned economy. Agriculture sector was in tough situation in those new economic conditions. Support schemes from the government had been interrupted and new support systems were still not implemented. Simultaneously the privatization regimes of state farms had started and farm places were under restructuralization processes when land was restored to the previous owners. Small private farms with low technical and technological equipment were not competitive enough with their non-subsidized products on the market.

On top of that in those states so far unknown phenomenon has emerged – unemployment. Agriculture sector was the first one where we noticed the transition of employed workers into the unemployed ones. This matter of fact had the fundamental impact on economic rural environment because the majority of employed workers in farms were rural population. The economic and social status of rural population got worse dramatically, and their living standard was declining as well. Also the need of research and education institutions seemed to be as supernumerary in that period and the number of those institutions was reduced. In Slovak Republic the number of employees in agriculture dropped down from 173 711 (in 1993) to 31 685 in 2010), while the overall landscape area has not been changed. (4 903 644 ha in 2010).

On the other side the new member states got the chance to enter the single market within the CAP, the financial perspective for years 2004-2006 had been set and the system of gradual direct payment implementation was installed along with possibility of co-financing from national sources or temporarily from rural development sources. Farmers from the new member states can get access to the CAP support measures – for e.g. export subsidies, countervailing measures for some commodities, direct payments, different direct grants for particular activities focused on sales promotion and increasing food quality, farming promotion in disadvantaged areas and any other supports funded from EAGF sources. The fact is that the access to those supports and their extent is still discriminating for new member states. As an example we can mention the extent of direct payments of which size will be the same for the old and new member states after 2013. New member states can also ask within their rural development plans for priorities and measures funding associated with infrastructure development in rural areas, employment increasing of residential rural population what can prevent rural population outflow, improve agriculture community social status. Their access to funding is possible not only from EAFRD (European Agriculture Fund for Rural Development) but also from other EU structural funds. Resources from those funds can be used in order to increase and preserve employment in rural areas, labor force movement support, professional education support, rural revitalization process, tourism development, environment improvement and protection.

The main CAP issue still remains rural population living standard level achievement being identical to the one in urban areas, particularly farmers. By means of measures within the second CAP pillar the gradual farmer living standard balance should be achieved and EU rural issue should be solved as a complex it means to stop rural areas depopulation, support small farmers, and revive rural economy and so on.

3. Problem solution

According to the EU agreement on Budget for period of years 2014 till 2020 and according to the new EU CAP conception present sub national system is supposed to be cancelled and should be replaced by „payment privilege scheme“. The drawback is its administrative strenuousness and on/to the contrary small farms financing should get simpler. Criticized landscape owners subsidizing should be eliminated and not of those who were working on the landscape. „Active farmers' „support means another change of agricultures' financing within the EU CAP for years of 2014 – 2020.The final agreements on the particular rules of EU CAP operation should be known till the end of 2013.

Another risk we can see in so-called capping greening measures. Capping means the progressive cut downs of direct payments for farmers – bigger farms with higher number of employees.

Table 1: Progressive payment cut downs to big farms

Subvention [k€]	Cut downs [%]
150 - 200	20
200 - 250	40
250 - 300	70
> 300	100

This original proposal, what would mean that the subventions per farm accessing 300 k€, where the farm would be reliant only to its own revenues, has been changed. From the subvention cutting farmers can deduct the labor cost from the previous year. Even farms that have been set up by special purpose separate will not get any payment. By this measure the long term criticized CAP feature will be eliminated when 80% of supports headed to 20% agriculture plants. Even if in the majority of new member states the big agriculture plants share is predominating, this measure is discriminating for those countries again. This measure might have the bad impact mainly on the farmers in southern Slovakia. On the contrary we can admit that this measure will be very useful for small farmers. It is questionable if it will be motivating enough in order to the farmers should dedicate their all work only to farming. Generally the employment in agriculture sector in EU has decreased about 25% what meant working positions loss of 3,7 mil. It is a consequence that the work importance in agriculture sector has been undervalued.

Greening is another questionable measure when payments will be headed to project focused on better climate and environment. Payments will refer to areas where sowing will be changed, will be put set-aside, forested, will create preserve zones.

Within the new measures the EU has put aside 2% from the budget on CAP to support young beginning farmers. This measure refers to continuing rural areas depopulation and aging population. According to the assessments only 7% farmers in rural areas are younger than 35 years and one of five has more than 65 years. It is questionable if these measures will be sufficient for farmers ‘age level decreasing.

Generally it is necessary to improve the age and educational level of people employed in agriculture. Specific features of agriculture set by climate conditions, weather, animals' biological needs, future young farmers require not only professional knowledge and skills but also the point of view on young farmer is necessary to be changed. The part of overall new change of farmer's status should be visible bureaucracy simplifying for beginning farmers, to provide free educational activities at secondary schools and universities, technical help by using new technologies and procedures and lobbing for professional organizations and associations.

4. Conclusion

New CAP will face to many challenges, to secure food security and sovereignty, environment and climate protection especially to give back the prestige for economy and employment in agriculture sector. New CAP for years of 2014 – 2020 was refused by member states, reform works delay thus CAP is becoming the outsider in terms of EU common policies. The future CAP is symbolized by small, young and green farmer in complicated fast changing environment. The CSAP future is about knowledge society based on bigger and rational production. Thus the CAP goals will be long-term food security guaranty, rural areas preserving and providing healthy and secure food to EU citizens.

In the Program statement of new Slovak government food security assignment for SR by means of higher share of domestic food and groceries is stressed. These producers could be supported by financing stimulus while it is presumed the creation of 20 – 25 thousand new working positions in agriculture sector.

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EU Energy and Environmental Policies Threatening Competitiveness of the EU

Martin Hon, Iva Honová
VŠB – Technical University of Ostrava
Faculty of Economics, Department of Economics, Department of European Integration
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
martin.hon@vsb.cz, iva.honova@vsb.cz

Abstract
The EU objective to become a low-carbon economy is one of the dominant goals of Europe 2020. This article discusses the energy and environmental policy and their impact on the member states. Selected approaches for achieving the stated goals have proved to be ineffective and threatening the competitiveness of the EU and its member states. The article points out the need for strict respect of the subsidiarity principle in the environmental and energy policies.

Keywords: *Competitiveness, energy policy, environment policy, EU ETS, renewable energy sources*

JEL codes: *Q42, Q48, Q58*

1. Introduction

The European Union in its strategy Europe 2020 has set a goal to achieve "sustainable growth". This is among others interpreted as "building a more competitive low-carbon economy that makes efficient, sustainable use of resources" (European Commission [online], 2012). But more competitive and low-carbon economy might seem as quite contradictory aims, especially in the nowadays technological knowledge. The availability of energy at reasonable prices is one of the key factors of EU competitiveness.

The European Union has set binding environmental goals. Their achieving increases energy prices in a large scale and so reduces the EU competitiveness in the global economy. This fact is even more serious as the impact is spread differently among member states. More to this, instruments set to achieve the goals are not effective and cause a lot of distortions in the member economies.

2. Low carbon economy

The European Union has set a goal to be a low-carbon economy on one hand, but it has no common energy policy on the other hand in the sense of that each member state retain the right to decide on its own energy mix by himself – "without prejudice to the application of other provisions of the Treaties, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the measures necessary to achieve the objectives. Such measures shall be adopted after consultation of the Economic and Social

Committee and the Committee of the Regions. Such measures shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply." (Consolidated version of the Treaty on the Functioning of the European Union, 2010, Article 194:2).

This right to choose the energy mix is de jure, but de facto it is restricted by the EU environmental policy. In the fight against climate change the EU applies to its member states two key tools – promotion of renewable energy sources (mandatory minimum share of RES in total energy production) and a system of CO_2 emission allowance trading (EU ETS). Setting the parameters of these tools has a key influence on the future structure of the energy mix in the member states. The EU environmental policy thus has far more impact on the energy structure of member states than it might seem at first glance.

The structure of energy use in the future will be influenced more by current policies and their goals concerning climate protection, security of supply and the use of nuclear energy than by available technologies (Blesl et al., 2010, p. 6291). The asymmetric impact of measures on individual member states is due to two factors: energy intensity and energy mix structure.

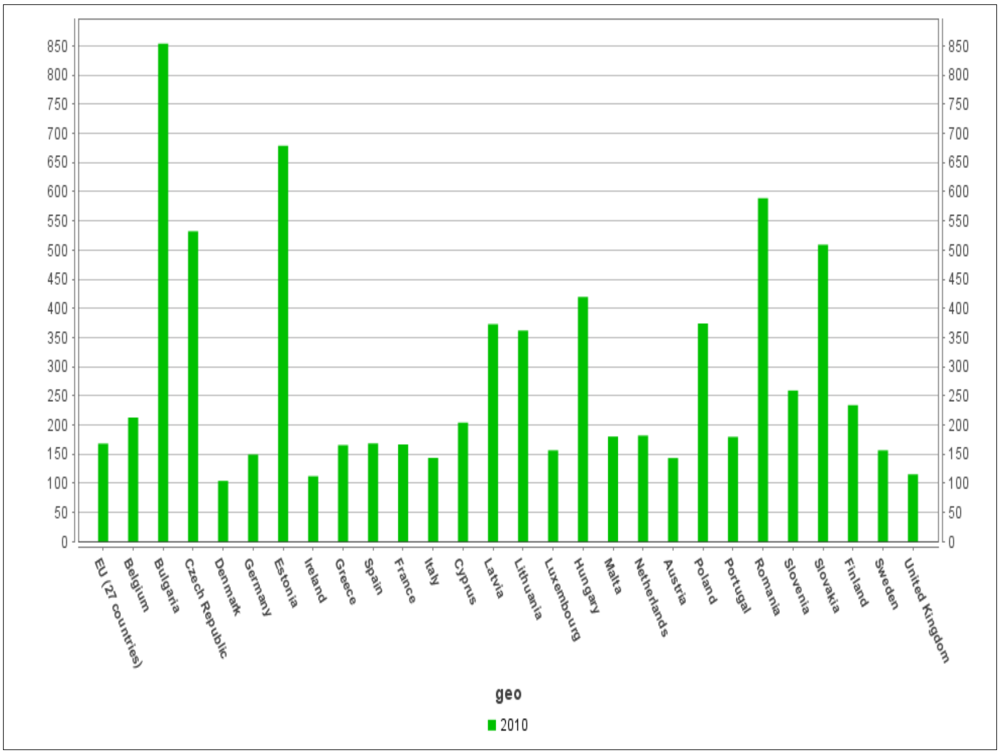
2.1 Energy intensity

There is a big difference in energy intensity among member states (see Figure 1), but it is necessary to interpret the numbers in the right way.

High energy intensity does not necessary mean wasting; it just reflects the structure of the economy. The countries with high share of industry on GDP (e.g. the Czech Republic and Slovakia as the biggest car producers per capita) have higher energy intensity than countries with high share of services. The specific example is Bulgaria and Romania, countries that joined the EU in 2007 as the poorest countries in GDP per capita numbers, which do not have enough sources to implement energy saving measures (e.g. insulation of buildings).

The indicator of energy intensity (Figure 1) is also distorted by the fact that is related to GDP indicator. Different price levels underestimate the volume of production in new member states, leading to an overestimation of the energy intensity indicator in these countries.

Figure 1: Energy intensity of the economy (Gross inland consumption of energy divided by GDP, in kilograms of oil equivalent per 1000 Euro)



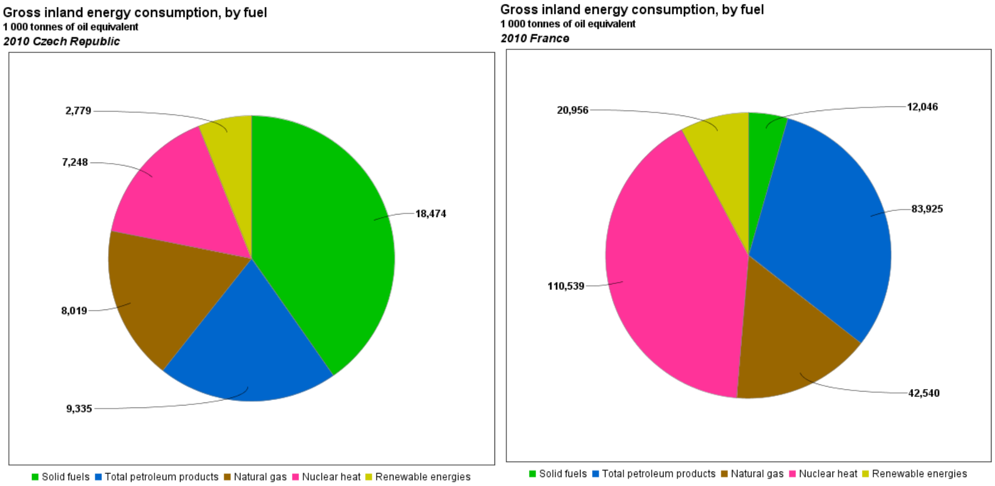
Source: Eurostat (2012). *Statistics* [online]. [cit.2012-05-08]. Available: http://epp.eurostat.ec.europa.eu/tgm/graph.do?tab=graph&plugin=1&pcode=t2020_32&language=en&toolbox=data

Current energy/environmental EU policy clearly causes an increase in energy prices, which threatens more the competitiveness of the countries with higher energy intensity.

2.2 Energy mix structure

The energy/environmental policy will have a different impact on the states depending on their energy mix. The EU effort to achieve a low carbon economy will affect more (in a negative way in the sense of competitiveness) the countries with a bigger share of fossil fuels.

Figure 2: Energy consumption



Source: Eurostat (2012). *Statistics* [online]. [cit.2012-05-08]. Available: http://epp.eurostat.ec.europa.eu/tgm/graphDownload.do?tab=graph&language=en&plugin=0&pcode=tsdcc320

For example, if we compare the Czech Republic with France (Figure 2), which is the European leader in the production of electricity from nuclear, it is clear that the costs of transition to a low carbon economy in the Czech Republic will be considerably higher.

It should be noted that the choice of energy mix is not a purely political matter, but is also due to geographical and climatic conditions (the possibility of using water, wind or solar energy).

3. Support instruments

Strategy Europe 2020 sets two quantitatively defined targets that directly affect the structure of the energy mix in the member states. EU targets for sustainable growth include (European Commission [online], 2012):

- reducing greenhouse gas emissions by 20% compared to 1990 levels by 2020 (reduce by 30% if other developed countries make similar commitments and developing countries contribute according to their abilities, as part of a comprehensive global agreement),
- increasing the share of renewables in final energy consumption to 20%.

Setting a target share of renewables has increased the total cost of transition to a low carbon economy. Including a 20% target for renewable energy in the EU climate policy package increases the welfare costs considerably. The excess costs of the target are expected to be 6%, which is about 0.02% of EU national income or approximately € 4 billion (in constant prices of 2005) in 2020. The excess costs may vary from 0%, when the target turns out to be not binding, to 32% with high costs of renewable energy and a low share of renewables in the baseline (Boeters, Koornneef, 2011, p. 1033).

3.1 Reducing greenhouse emissions

The key instrument for reducing greenhouse gas emissions is a system of emission allowances trading. The aim is to motivate companies to reduce emissions and achieve a minimum impact on social welfare. Practical implementation, however, only caused the increase in inefficiency.

The system is based on the premise that trading will ensure long term stable price of CO_2 emissions allowances and so give a clear signal to firms for investment decisions. However, experience has shown that the allowance price is very volatile and reflects the phase of economic cycle and the development of weather in a given year. Due to this, to predict the price is almost impossible and the EU ETS complicates the investment planning of companies. In the electricity industry the situation has gone so far that firms are willing to invest only if they have guaranteed some kind of public subsidies. Volatile allowance prices (Figure 3) are another source of uncertainty, which lead to increasing costs and so threaten the competitiveness of European firms.

Figure 3: CO_2 emission allowance price

Source: Eurostat (2012). *Statistics* [online]. [cit.2012-05-08]. Available: http://www.eex.com/en/Market%20Data/Trading%20Data/Emission%20Rights/EU%20Emission%20Allowances%20%7C%20Spot/EU%20Emission%20Allowances%20Chart%20%7C%20Spot/spot-eua-chart/2012-05-08/0/0/a

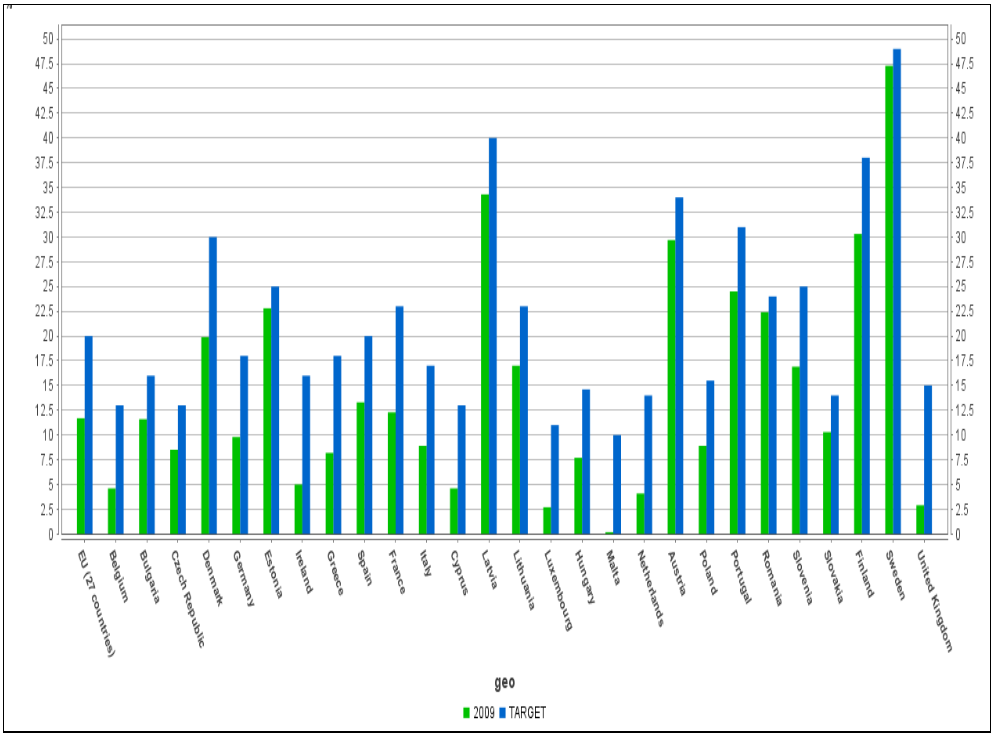
Unpredictable political changes in the amount of emission allowances issued prevent the creation of prices that would be able to fulfil its information and allocation function. Due to this the market for emission allowances is unable to create an environment in which firms could effectively form their investment decisions and ad hoc redistributes wealth, which leads to reduced competitiveness of companies in the European and global market.

The country with a higher share of fossil fuels is affected more by this European environmental policy. The impact of carbon constraints in the EU ETS depends on the country´s energy mix (Kirat, Ahamada, 2011, p. 1003).

3.2 Increasing share of renewables

In the strategy Europe 2020 a binding target for the share of renewable energies in the energy mix for 2020 is set at 20% for the whole EU, but it differs for every state (Figure 4), depending on the natural conditions.

Figure 4: Share of renewable energy in gross final energy consumption



Source: Eurostat (2012). *Statistics* [online]. [cit.2012-05-08]. Available: http://epp.eurostat.ec.europa.eu/tgm/graph.do?tab=graph&plugin=1&pcode=t2020_31&language=en&toolbox=data

Chosen means of supporting the implementation of renewable energy sources - direct subsidies, feed-in prices, compulsory purchase, etc. mostly ignore the question of efficiency. The example of this is the massive development of photovoltaic in Central Europe or the use of biomass, which is imported from Africa or South America.

The strong pressure on the introduction of renewable energy sources has caused that immature technology is used in a huge scale - for example photovoltaic panels with low efficiency, biofuels being produced instead of food, electric transmission infrastructure not being ready for unstable power sources etc.

European enthusiasm for renewable energy resources ignores current technological capabilities and is the main cause of rising energy prices with negative impact on the EU competitiveness in the global economy.

4. Conclusion

The primary long-term objective must be the EU's competitiveness (and of its individual member states), in the global economy. Only prosperous economies are able to create enough resources to fulfill the environmental objectives of the Union, expressed by the low-carbon economy. In this respect, the current energy and environmental policies seem to be completely counterproductive.

Tools and procedures used, when, under the guise of the EU environmental policy the energy policies of the individual member states are being significantly affected, have so far reflected only in an increased inefficiency followed by an increase in energy prices. This obviously has a very negative impact on the competitiveness of European economies.

Whereas the common environmental/energy policy has a differential impact on individual EU member states, in our opinion it is necessary to strictly apply the principle of subsidiarity.

The European Union should reduce its number of binding targets only to the question of greenhouse gases emission. The choice of tools and specific procedures, however, should be fully within the competence of the individual member state. Only this can ensure that the natural, geographical, climatic and technological conditions of each country in the EU will be fully respected.

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Perspectives and Possibilities of Economic Integration of the Post-Soviet Space

Martin Horemuž
Catholic University in Ruzomberok
Faculty of Arts and Letters, Department of Political Science
Hrabovská cesta 1, Ružomberok, Slovakia
martin.horemuz@ff.ku.sk

Abstract
The aim of this paper is to highlight the economic integration processes in the post-Soviet space after 1991. Due to the dissolution of the USSR is the existence of predomination of disintegration and centrifugal tendencies in the whole post-Soviet territory, which substantially limited the possibility of any economic integration. During the 90´s many integration attempts have failed, mainly because of the conflicting economic and political interests of individual states. The other reason of failure may be considered that Russia remains the natural initiatory center of all integration groupings, and it has used them as a tool to advance its own political and economic interests. New integration impulses of Moscow appear in connection with the series of color revolutions in some former Soviet republics (2003-2005), but especially with the economic rise of Russia. The establishment of the Custom Union between the RF, Belarus and Kazakhstan (December, 2010) within the Eurasian economic community seems to be an ambitious attempt for economic integration, the final aim is the creation of a Common economic space.

Keywords: *Commonwealth of Independent states, custom union, Eurasian Economic Community, integration process, Post-Soviet space*

JEL codes: *F15, F55, F59*

1. Introduction

In the second half of the 20th century, there became a significant boost in international and regional institutions in the field of international politics. Their existence is the result of a greater variety of states' activities, as these are the key actors in international relations. On one hand, increased activity of states reflects the growing number of mutual interactions at all levels (state - state, state - international organizations) but on the other hand, it creates the implications of greater interdependence. From historical perspective, there exist many successful examples and models of economic integration. In the academic literature, we can read most frequently about the European integration concept which in post-war Western Europe created the conditions for economic development and political stability. Most states are now to a greater or lesser degree linked to international or regional institutions, which by its nature, mission and geographic location cooperate together in many different fields and spheres. The three key areas within the scope of these organizations include regional economic issues with political and security agenda. Regional aspects of economic integration now have an important role and place among the economic concept of states. There is no country in the world, which would not reflect such issue as economic development in any way. In today's globalised world, an isolation or elimination from the international system is not only technically impossible, but also exceptional (except perhaps North Korea). On one hand, globalization means, for each of the actors in the international system, the possibility of benefiting in terms of economic cost reduction, improvement of economic efficiency, availability of information for decision making, but on the other hand it opens up possibilities for the spread of negative phenomena such as transnational organized crime, threats and damages to the environment, terrorism and so on. Therefore, in the present theory and practice of international relations more than ever before stand out the regional integration groupings. These are characterized by efforts to create a stable and prosperous regional economic framework and environment. The reasons for the development of regional relations, cooperation and integration at the regional level are especially the historical relations between the countries next to each other or sharing an identical geographical area in where they can find common political, economic, cultural or other interests. Thus there is a legitimate demand and need for their continuous coordination, harmonization and guidance for the benefit of all members. An equally important factor is also identically shared values of democratic principles and procedures of law, human rights, recognition of the principles of market economy, etc...

The disintegration of the Soviet Union created on the political map of this totalitarian state a new political, economic and social plan for tracing qualitatively new relationships. During the first years after independence, the key task for the 15 newly developed countries has become launching of political and democratic processes. Their primary purpose was to remove the existing power structures and create new institutions that will meet the upcoming socio-economic conditions. After the collapse of the communist totalitarian system, the post-Soviet states, like the Central European countries (Czech Republic, Poland, Hungary), have embarked on political and economic transformation, and also because they were (and still are) called the umbrella of the Central and Eastern Europe. Although the scope and depth of these states' reforms varied widely, the key difference in terms of their subsequent regional political and economic integration was their foreign policy orientation. The development of post-communist transformation in the space of the former Soviet Union formed the group of the Baltic republics (Latvia, Lithuania, Estonia), which like the countries of Central Europe tried immediately after the independence for full integration into Euro-Atlantic structures and organizations (EU, NATO), which they finally succeeded in 2002 and 2004 respectively. This de facto left the other post-Soviet states in a "grey zone" of seeking their own economic model and economic integration into regional and international framework.

2. Structural conditions of integration of post-Soviet geopolitical region

Regions are in international relations and in the wider sense of political science analysed and studied in various aspects of using multiple approaches and despite the fact that there is relatively broad agreement and consensus that the process of defining a theoretical definition of the region is directly stated in term "regionalization". A.

Hurrel considers regionalization as "growth of social integration within the region and often uncontrolled process of social and economic interaction." (Hurrel, 1995, p. 39). Conversely J. Ravenhill refers to the growth of economic dependency within the specified geographical area. (Ravenhill, 2007, p. 174) Current trends in international relations under the impact of globalization is increasingly inclined towards the integration between the national states in different sectors of activities and ways of action, both at the local, regional and international level. The economic sphere and economic area are naturally not isolated from these processes and in principle these are the most important components in the formation of global, economic environment.

The Post-Soviet space is considered as appropriate analytical and research platform by analysts, within it is possible to identify the most relevant group of common or different features needed for generalizing claims and within several socio-scientific disciplines (political science, sociology, economics, etc). In addition to this statement, there are several other supporting arguments and reasons. Firstly, it is the fact that the former Soviet Union states are relatively geographically coherent and clearly defined geographical entity, which largely predetermines them to the wider regional cooperation. (Libman, Vinokurov, 2010) An equally important variable is that the states were until 1991 an integral part of a single, strictly centralized political, economic, security and legal system, whose heritage is strongly present even today. Finally, all states have a common escaping point (time and content) for economic, political and social transformation that took place in parallel to them.

In terms of the structural assumptions, the economic integration necessarily implies the existence of some key factors, the lack of which greatly limits the possibilities of the intended overall integration process. In this context it is all about:

Political assumption: While in the early 1990s all CIS countries proclaimed the goal of creating a democratic and open political system, two decades afterwards the majority of the CIS members is comprised by more or less consolidated autocracies and semi-democracies (even although some of them experienced more “democratic” phases of development in the 1990s). Most of them maintain at least the formal attributes of democratic political process and allow for a limited political opposition, however, the ruling group is protected from any open political competition and effectively controls the parliament and (often) the main media. (Libman, 2011, p. 22) And also for this reason with the connection with post-Soviet countries, even 20 years after the fall of the communist regime the political science claims unfinished political and democratically consolidation or successfully completed process of establishing fully functional democracy. Most of the countries are de facto labelled with the name non-democratic countries, as there are authoritative presidents at power (Azerbaijan, Belarus, Kazakhstan, Uzbekistan, Tajikistan), and powerful elites loyal to them. They aren't interested in uncontrollable movement of economic national and social competence in fear of losing their political power eventually they approach them with a great modesty. In addition in the historical perspective strong cast backs exist in most of the post-Soviet countries as they don't want to give up their gained power in favour of newly created integrated structures and groups, because they gained this power quite recently from the power centre (i.e. Moscow) in complicated national emancipating processes (Georgia, Ukraine). And therefore it is necessary to mention in the first place that any integration taking place at the country level directly influences their inner and outer sovereignty, per quod this process inherently becomes primary a politic question. That ultimately means, that particular political elites of the countries must approve, within political decisions, the movement of competence to multinational bodies and structures creates as the result of the integration.

Existence of integration centre: Russia after the fall of USSR took the way of searching own post-Soviet and post-imperialistic nationality and identity. Its fulfilment particularly in the 90's was in progress in very complicated inner-political conditions, which was strongly signated with a deep social and economic crisis. On the other hand, it was Russia, that realised, from the beginning, it's responsibility for the development of post-Soviet geo-political space, especially in the safety context. Especially after 1991 many local war conflicts broke out on the territory of fallen USSR, to which the international society acted considerably restrained. (Razuvajev, 1993) And therefore during 1992 the conception of near foreign was accepted, which main principles and values are valid nowadays. Following this concept, Russia asserts a demand on dominant political economic and military-security position in the whole post-Soviet space. Asserting this demand results from the historical progress, where Russia (tsarist, soviet) was always in the geographical centre, origin of power the crucial leader of any happening in this large space. (Mankoff, 2009)

In terms of the theory centre vs. periphery natural gravitation middle must exist, which can be very attractive to countries situated in its surroundings. Centre must necessarily dispose with a sufficient political economic and military capacity capable of optionally integrate surrounding periphery. J. Nye in this context talks about „soft power“and divides it into 3 categories: culture, political values and foreign politics. In the broadest sense it is possible to define soft power as an enforcement of power in non-military ways with the help of attractively and cooperation (Nye, 1990, Nye 2004). Russia is sufficiently aware of necessity of its own economic enhancement and thereby of attractively in the relationship with post-Soviet republics. (Popescu, 2006) And therefore at the maximal possible degree develops an effort to an inner modernisation of economics and society which evidence was an article by the president D. Medvedev September 2009 under the name „Russia forward“. By this manifest the process of inner modernisation focus on building knowledge economics, decreasing of fuel-energetic complex on making GDP, let us say total decrease of influence of the country on economics (leaving the model of state capitalism). On the outside this process could express as intensifying of economic cooperation bonds and to emphasise on perspective integrational groupment active on the post-Soviet territory. Aim of these is to reinforce not only the geo-political position but also the whole political and economic influence of Russia in the global world-wide economic system. Mostly Russia is also aware of its own economical perspectives which are connected with integration to world economics, which evidence is entering WTO (2012).

Economic assumptions: Regarding the possibilities and assumptions of economic integration post-Soviet space, several authors often show on one crucial assumption (advantage) to its successful impletion – in the past created, existing mutual economic space. The economics of USSR developed as a highly integrated complex where individual parts (republics, industry corporations) were mutually connected. Furthermore mutual, manufacturing and economic relationships were in soviet economy system intentionally constructed so, as not to allow autonomic and independent development apart from controlled centralising system. After 1991 the decline of USSR reciprocally reflected to manufacturing and economical relationships and in the time between 1992 and 1995 in the member states of CIS estimated 1/3 as 1/2 decrease of GDP occurred. (Smirnov, 2001) This economic decline was as a result of more factors. Mainly it was a bad structure of economy orientated and concentrated on military production, that didn’t respond to new economic conditions and requirements. Only to illustrate in it's possible to mention that expenditures of the past USSR on defence and safety were estimated in an interval between 15-25 % of GDP. (Oliker et al., 2009) A low added value and a high material and energetic difficulty of production originated from this fact. The key factor was also the breakdown of markets of the countries of The *Council for Mutual Economic Assistance* and the third world, on which the main of production was placed. A certain weakness, but also a challenge for the future seems to be a possibility of managing a transition from central planned for market economy. But that seemed more complicated in the fallen USSR countries unlike countries of central and south-east Europe, because the period of time, 70 years of total economic control was compared to other communist countries much longer.

Technical assumptions: For development and integration in the form of regional organisation, technical and technological assumptions exist. Most of the countries of fallen USSR were connected with an important and key infrastructure e.g. unit energetic transmission system, network of pipelines and gas pipelines, railway, with a differential gauge as „standard“ European rail network and so on. Any efforts to rebuild the whole extensive technical and supportive in fracture is regarded to being in progress transformal restructuring process of economics appears as economically high-priced, time-consuming, not mentioning that individual post-Soviet republics didn't have and in the present don't have needed funds for this restructuring. Currently the meaning of this aspect shows the strongest in the field of energetics (mineral oil, natural gas), where Russia uses possibilities for capital expansion for entering the economically strategic and lucrative sector mainly post-Soviet countries. Also for that reason, some countries of the fallen USSR still after 20 years „after“ commercially connected to Russian federation, which in some fields (mainly in energetics) makes unilateral dependence relations.

On the other hand the main goals in the integration process should be:

Achievement of political stability: Post-Soviet countries can contribute to a solution of actual political, social and economic conflicts and prevent of making new ones with common effort. Political integration can in individual countries enhance the structure, administration and management of public affairs. Regional political stability is also a presumption of economic development. Mostly under functionalistic theory of international relationships mutual dependency and functioning international cooperational institutions a positive influence on an inner development. A considerable factor is also the fact that states which economics are strongly connected based on cooperation in particular practical areas make proper fore field and possibilities for their enlarging to other areas.

Creating of economic prosperity: Regional integration makes larger and more effective markets and also possibilities for access and application on these markets. At the same time regional integration directly supports economic growth and prosperity while in combination with political and economic predictability is the given regional entity becomes interesting from the point of view of foreign investment. Last but not least it cannot be forgotten that integrated regional groups are more fluently integrating to the worldwide economical market and system.

Common challenges: These can be better solved on the regional level than on the national level. That applies to mainly those areas which are problems of poverty, unemployment, health care, education, illegal migration, demographic changes; environmental questions and so on, which on the outside act as a large unrelated and a heterogeneous group of factors and aspects. Dynamics of inner social processes which is in progress in the last two decenes in individual industrial or if you like postmodern societies set several socio-economic challenges on the most of post-Soviet countries which is necessary to react in a responsible way in these days.

3. Factors limiting the integrational potential of post-Soviet area

Even though the states of post-Soviet area with reference on the historical heritage make on the outside a compact unit, internally it is in fact a significantly rambling unit, which is immediately reflecting to the approach of particular countries to integrational processes. Mentioned incongruity results mainly from different foreign-politics orientation geographical and raw material predisposition but also different social and cultural problems. V.G. Shadurskij from the Belarus state university assumes that the cause of failure of economic or in broad terms political integration of the post-Soviet area are factors which in the whole process on a different level and intensity show as desintegrative centrifugal tendencies:

1. Incompleted economic reforms in the individual post-Soviet republics including the absence of harmonisation of economic interests
2. High dependence economics and foreign business of post-Soviet countries on energetic materials especially mineral oil and gas.
3. Insufficient atractivity of Russia as a centre (core) of integration and the associated low effectively realized integrational projects
4. Absence of Ukraine in the integrational groups and structures
5. Influence of foreign actors on the politics of states of the post-Soviet area

6. Absence of legal mechanism on solving legal disputes. (Shadurskij, 2010)

The given taxative calculation cannot be considered as final, because between disintegrative factors which significantly limit the options of economic or if you like any integration between post-Soviet countries belong frozen local and ethnic conflicts in South Caucasus, but also a high conflicting and explosive potential in the region of middle Asia related to the heterogeneous structure of population underlined with clan social and religious tension. In the European part is the source of tension the question of Transnistria which also does not allow to fill pro-European ambitions of Moldova. In a similar way as a „torn“(part of the population is pro-European, the other part is pro-Russian) is Ukraine. Needed belief for any form of integration don't supply received discriminational steps or if you like their abuse for political governmental goals (e.g. trade embargo RF towards the import of Moldovan wines, Georgian mineral waters, Belarus milk products but also constantly russian-ukrainian and russian-belarussian conflicts about the price of energetic materials. (Oiker, et al., 2009)

The key-point view of any integration is however showing the absence of the idea of integration (unification) by itself, because for such we cannot definitely consider only the idea of economic cooperation and development of mutual economic relations. Although the idea of integration by itself has been during the las 20 years relatively intensely searched for still is more or less a retrospective idea, orientated to the past. That is manifested mainly by pointing out and referencing to the Soviet era and some positives and residues deriving from it, which aren't actual in the present. For successful fulfilment economic integrational process is necessary to orientate the idea of integration in a promising direction – to the future.

4. Post-Soviet space in the light of economic integration

Since the collapse of the Soviet Union there have been continuing attempts to create various unions and entities in the post-Soviet space whose goal is multilateral economic cooperation, with a view to future economic integration. Several protointegration entities are currently in existence: the Commonwealth of Independent States (CIS), GUAM (Georgia, Ukraine, Azerbaijan, and Moldova), the Eurasian Economic Communicty (EurAsEC), Common Economic Space (CES—Belarus, Kazakhstan, Russia, and Ukraine), the union state of Belarus and Russia, and so on. (Zhukov, Reznikova, 2007, p. 24)

In the post-Soviet space the integration and that not only the economic one, reached various shapes and forms. In 1991 the CIS was established as an international organization and in three years' time all the former Soviet republics with the exception of Baltic States became members. The main aim was to preserve economic connections but also to divide the assets and liabilities of the former common state. However, the organization lacked a clear conception and priorities that often arose as ad hoc initiatives without broader context. According to first plans, the CIS was supposed to be a platform for political, economic and security integration or function as a regional institution drawing from the experience of the EU and NATO. Yet in reality the CIS did not live up to the expectations of its signatories in any respect with the exception of military security within which it relatively successfully established itself in the CSTO (Collective Security Treaty Organisation). A crisis in the functioning of the CIS was also caused by the establishment of a so-called GUAM (October 1997) as a political, economic and strategic alliance whose official aim was strengthening the independence and sovereignty of its member countries. (Libman, 2011) This alliance that was renamed as GUAM – Organization for Democracy and Economic Development in 2006 currently includes Georgia, Ukraine, Azerbaijan and Moldova that are the states that are traditionally anti-Russian in their foreign and security policy. What is more, due to geopolitical pluralism, also the Shanghai Cooperation Organisation (SCO) started to operate on the post-Soviet territory and within it, China plays an essential role.

Formally the most advanced integrative and cooperative body that influences the post-Soviet area is the Eurasian Economic Community (EurAsEC or EAEC). (Horák, 2009, p. 170) The Customs Union consists of representatives from Belarus, Kazakhstan, and Russia due to the agreement of October 6, 2007, a so-called second stage under the terms of the EurAsEC. This agreement took effect January 1, 2010. The first stage of implementation included two important components – the application of new collective customs tariffs and the harmony of different import licence regulations. In the second stage new customs laws became valid on July 1, 2010. Since then several institutional changes have been made including the establishment of the Customs Union Commission. On the basis of the Action Plan for the formation of the Common Economic Space confirmed during an informal summit of the presidents of Belarus, Kazakhstan, and Russia in Alma Ate on December 2009, the CES between the signatories of the agreement was established on the January 1, 2012. Since the break-up of the USSR the CES represents the highest form of economic integration in the post-Soviet space until now. (Libman, Vinokurov, 2010) Their aim is to reach effective operation of common internal trade including the free flow of goods, services, labour force and capital. By the signature of the declaration of Eurasian economic integration (November 2011) the CES parties have declared that until (January 1, 2015) they will strive to complete the codification of international agreement, that forms the legal basis of the Customs Union and CES. On this foundation they will create the Eurasian Economic Union. For the institutional realization of this aim the Agreement of the Eurasian Economic Commission has been signed as the supranational integrative organ.

Table 1: Participation of the selected integration groupings operating in post-Soviet territory (2012)

	CIS	EURASEC	CU/CES	CSTO	SCO	GUAM[5]
Armenia	x	x[3]	-	x	-	-
Azerbaijan	x	-	-	-	-	x
Belarus	x	x	x	x	-	-
Georgia	-[1]	-	-	-	-	x
Kazakhstan	x	x	x	x	x	-
Kyrgyz Republic	x	x	-	x	x	-
Moldova	x	x	-	-	-	x
Russia	x	x	x	x	x	x
Ukraine	x	x[3]	-	-	-	x
Uzbekistan	x	x[4]	-	x	x	x[6]
Tajikistan	x	x	-	x	x	-
Turkmenistan	x[2]	-	-	-	-	-

Source: The author's data

[1] Georgia was part of the CIS until the year 2009, but the reaction to the Russian-Georgian war in the South Ossetia and Abkhazia in August 2008 meant the end of the organization.
[2] Turkmenistan has been only an associate member since 2005.
[3] Armenia, Moldova and Ukraine have the status of observer.
[4] Uzbekistan entered the organization in 2005 but in October 2008 suspended participation in the organization's activities.
[5] In the year 2006 the organization changed its name to GUAM – Organization for Democracy and Economic Development.
[6] Uzbekistan in 2005 resigned its membership in this organization.

According to I. Wisniewska, the declared aim of creating the CU is a desire to strengthen economic ties between the countries that it includes. Over the last 20 years, economic relations between Russia and the countries of the former USSR have been loosened. Between 2004 and 2008, Kazakhstan and Belarus' Shares of Exports to Russiain the secountries' total exportsfellby11 % (to 9 %) and 18 % (to 32 %) respectively. Meanwhile, trade between Belarus and Kazakhstan is minimal. The limited extent of the customs union (which has above all been dictated by Russian interests), as well as the experiences of economic integration in the region until now (which include failures to respect agreements which have been concluded) point to the principally political motives of the agreement which Moscow has lobbied for. (Wisniewska, 2012)

5. Conclusion

The idea of "multi-speed" integration took hold in the post-Soviet area in the mid-1990s when several regional groupings with ambitions to unify came into being. Nevertheless, all of these groupings (Central Asian Cooperation, the Eurasian Economic Community, GUUAM and the Union of Russia and Belarus) came up against the same problems as the CIS itself. The Eurasian Economic Community has made the greatest progress to date, and its official representatives assert that a free-trade zone has indeed been put in place there. (Homolova, 2002)

Russia was at the centre of the events that took place in Eastern Europe and the Soviet Union 20 years ago. It seemed from the start that the Russian Federation was the indisputable leader and the „motor“ of the entire integration process, which in comparison to other states disposed of a stronger international-political position, sizeable economic and military tools and capacities. Russia is also therefore constantly considered not only as the natural core of the CIS, but also for the initiative player of any relevant integration alignments that have formed and operated in the post-Soviet space in the last 20 years (CSTO, EurAsec, CES, CU, SOS). Vice versa, Moscow’s integration alignment and its structures are mainly a tool of intensive control of former satellites, or as a new model and a form of post imperial institutional alignment, or the relations between the centre and the periphery. For this reason, the prospects and possibilities of the economic integration of post-Soviet space very limited.

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Interoperability between EU Countries in the Security Area

Radomír Kaňa, Monika Mynarzová
VŠB – Technical University of Ostrava
Faculty of Economics, Department of European Integration
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
radomir.kana@vsb.cz; monika.mynarzova@vsb.cz

Abstract
Common Security and Defence Policy (CSDP, originally, the ESDP) is an integral part of the Common Foreign and Security Policy (CFSP), while it can be seen as a deepening of the CFSP, as well as a specific instrument of the CFSP. CSDP member countries of the Union shall coordinate the development of its technological and industrial defense base and building of military and civilian capabilities. These capacities are then available for EU missions of military and civilian crisis management in the world which are the most visible element of the CSDP. All decisions regarding the CSDP are taken by representatives of Member States, meeting within the Council, by unanimity. This article will not only focus on the origin and circumstances of the CFSP, the EU's military capabilities and relations with NATO, but on the EU mission in the CFSP and the current and future aspects of the further development of security and defense policy.

Keywords: *European Union, Common Security and Defence Policy, NATO, EU Operations, military expenditure*

JEL codes: *F15, F5, F52*

1. Introduction

The European Union under the Common Foreign and Security Policy (CFSP), respectively Common (originally – by 2009 - European) Security and Defence policy (CSDP) is still a major challenge - the real question of the possibility of joint action ever with increasing number of Member States whose activity does not regulate any formal supranational authority. Innovative elements of the Treaty of Lisbon – *like elected President of the European Council, the newly defined High Representative for Foreign Affairs and Security Policy and in particular new construction of the European External Action Service* - seems to give a common EU external action outside the new dynamics, but hardly alone can overcome the dominant position of Member States and their interests in the development and approval of this policy. Although the Union in its European Security Strategy of 2003[25] declared itself as a global player, the practical realization of so complicated and relatively little

[25] The European security strategy was adopted by the Brussels European Council of 12 and 13 December 2003. It identifies the global challenges and key threats to the security of the Union and clarifies its strategic objectives like building security in the EU's neighborhood and promoting an international order based on effective multilateralism.

centralized unit, which the EU is still a big question. Partial improvement can be expected, a radical change, however, could be complicated.

Since 2003, the Common Security and Defense Policy organized 28 missions of all types listed above, of which 13 are ongoing (Council of the EU, 2012 a). Some of them were made directly with NATO (under the Berlin Plus Mechanism), others on request from the Alliance (see below).The following text will not only focus on key events that led to a creation of CSDP, selected EU missions that are so significant evidence of CSDP implementation in practice, but also points to fundamental problems in relation of CSDP (EU) to NATO - which currently and in near future may dramatically influence the European Union's role in the security area.

2. European Security and Defence policy – development at the turn of the millennium

Officially, the name of the European Security and Defence Policy first appeared in The Presidency Report on Strengthening the Common European Security and Defense policy, which was one of the outputs of the European Council summit in Cologne (1999).The summit discussed the key issues for developing a common defense, engaged in defining situations in which new capacity will be used by the Union and created the position of High Representative for Common Foreign and Security Policy which became Javier Solana. ESDP finally incorporated into the second pillar of the Maastricht temple - under the CFSP.

The following European Council summit in Helsinki in 1999 contributed to the ESDP assembling the list of resources needed to implement the tasks identified, which was defined as the *European Headline Goal* (EHG)[26]. List of military ESDP capabilities - the Force Catalogue - was revised several times thereafter (including the creation of reserves up to 5000 police officers, part of which will be capable of deployment within 30 days.

Problems in the construction and operation of these forces (the number of units still have not realized), however, eventually led to the need for faster response to an adequate threats[27] in form of the creation of combat troops - Battle Groups (BGS),

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[26] It was a planned military capabilities of the European Union by 2003 in the range up to 15 brigades (50 - 60 000 persons), capable of deployment in a crisis area within 60 days of the decision on the deployment and sustainable planting in the area for 1 year with adequate security in terms of logistics, including air and naval support (Kaňa, 2009, Lindstrom, 2007).

[27] The European Council of June 2004 approved to further develop the EU's military crisis management - *Headline Goal 2010.* By the year 2010, at the latest, the EU member states would be capable of responding *"with swift and decisive action applying a fully coherent approach"* to the whole spectrum of crisis management operations covered by the Treaty of the EU and the 2003 EU Security Strategy (so-called "Petersberg Tasks" - humanitarian and rescue tasks, disarmament operations, support to third countries in combating terrorism, peacekeeping tasks and tasks of combat forces in crisis management, and peacemaking). *The EU also aimed to address the shortfalls from the previous headline goal (like gaps related to strategic airlift and sealift) which were (and still are) considered to be a limiting factor to the operability of the designated forces, in specific operations* (Council of the EU, 2012 c).

consisting of about 1500 soldiers (each unit). The project of the first combat troops began Great Britain, France and Germany in February 2004 and within two months the EU defense ministers approved it. The unit can create one nation or group of nations and in its formation may participate the European members of NATO who are candidates for EU accession. Gradually it is being created about 18 BGS. Those are comprehensive security units whose activity will be conducted outside the operating headquarters of the event. On the call must be a minimum of two BGS, requires the ability to conduct two operations simultaneously, the length of the keeping operations is at least 30, up to 120 days in the infinite distance from Brussels, in all possible areas, except the Arctic regions. Deployment is within 10 days from the decision of the EU Council. Present groups are made up of individual countries and groups of countries, the first BGS are capable of full deployment of 1^{st} January 2007 (Kaňa, 2009).

In 2000 the European Council in Santa Maria de Feira, in addition to more precise relationship between ESDP and NATO, has also discussed the function of new institutions of ESDP, which was finally established at the end of that year at the Nice summit. It was *the Political and Security Committee*, the *Military Committee* and the *Military Staff.*

At its meeting in Laeken (2001), the European Council agreed on the operational side of ESDP in the context of crisis management. ESDP was formally recognized as a combat-ready finally.

One of the highlights of current efforts of the Union in the field of CSDP, we can designate foreign operations of the EU. The first one was launched in 2003. Missions take place not only in Europe but in Africa and Asia too. Several operations were successfully completed, others are still ongoing (see details below).The European Union basically distinguishes three types of operations - military, police and the mission to promote the rule of law. These types differ by attached personnel (troops, police, civil servants), but in particular features too.

Planning primarily military actions has long been the biggest point of contention between the EU Member States. In particular, the United Kingdom long refused to establish an autonomous EU planning centers, which in its opinion, weaken the role of NATO. Member States finally agreed on a compromise solution. For the planning of military operations, the EU can use either the structure of NATO under *The Berlin Plus* agreements, or national planning center of the responsible country. The first option, the Union used for example, when planning the Operation Concordia in Macedonia or Althea in Bosnia and Herzegovina, the French infrastructure (France as a "framework nation") was again used in the planning of Operation Artemis in the Congo (see below).

The agreements (*Berlin Plus*) were finally signed on April 17th 2003. Completely accurate and comprehensive version of *The Berlin Plus Mechanism*, how this key set of agreements commonly referred to, is not known to the public due to confidential nature of certain documents. In general, using information from the official printed materials NATO (NATO Press Release, 1999), in the number of points is the most comprehensive version of the Agreement by the Alliance presented information on the website of SHAPE (Supreme Headquarters Allied Powers Europe). Washington Summit Communiqué (1999), where the document has been created, often informs about the four points of the treaty (directly related to the EU opportunities), which are:

1. The EU's guaranteed access to NATO planning capabilities.
2. Access to other pre-defined common resources and capabilities of NATO.
3. Determination of the possibilities for European leadership in the Alliance and further development of Deputy Supreme Allied Commander Europe (DSACEUR)
4. Adaptation of NATO defense planning system to be able to devote much more complex suitable Alliance forces.

Use of the Berlin Plus is preferably within the so-called *"NATO first refusal"* - such as the right of Alliance to refuse the first execution of the mission. Only then is the EU decides to offer a mission-specific capacity to use or not. If the Council decides to launch the operation in the use of the Berlin Plus, it is guaranteed access to NATO operational capabilities[28]. This means in particular access to operational planning SHAPE based in Mons, Belgium, and other, mainly regional NATO command (such as AFSOUTH in Naples, Italy, which served as a regional command for Operation Concordia – see below).

3. The selected missions of the European Union[29]

3.1 Mission Completed

3.1.1 EUFOR Concordia (Former Yugoslav Republic of Macedonia - FYROM)

The European Union launched the military operation in the Former Yugoslav Republic of Macedonia (FYROM) on 31 March 2003 and followed on a military mission to NATO Allied Harmony, whose background under the *Berlin Plus Agreements been used*. The aim of the operation "EUFOR Concordia" was at the request of the Government of the Former Yugoslav Republic of Macedonia to contribute to a stable and secure environment and implementation of the Ohrid Framework Agreement[30].This operation was completed on the 15th December 2003.

[28] Access to NATO planning capabilities for the EU is generally considered as very beneficial, but the Union is able to do without it in the conduct of autonomous missions. As already mentioned, this is possible thanks to national planning mechanisms, but owned only by a few Member States such as France or Great Britain.

[29] (see Council of the EU, 2012a; ISIS Europe, 2012; Keukeleire, S., MacNaughtan, J., 2008).

[30] The Ohrid Agreement - Peace treaty signed in 2001 in Macedonia, resolving the conflict between majority and Albanian minority.

3.1.2 EUPOL PROXIMA (Former Yugoslav Republic of Macedonia - FYROM)

The European Union has launched in the former Yugoslav Republic of Macedonia (FYROM), the police mission (in accordance with the objectives of the Ohrid Framework Agreement), in close cooperation with government authorities. The mission called "EUPOL Proxima" was launched on 15th December 2003 and finished 14th December 2005. European forces monitor the situation and advised his Macedonian counterparts in the fight against organized crime, reform the Interior Ministry and police, border police building, building confidence in local police and police cooperation with neighboring countries. PROXIMA was part of the overall EU commitment to helping the former Yugoslav Republic of Macedonia to move closer to European integration.

3.1.3 ARTEMIS (Democratic Republic of Congo)

The military mission "ARTEMIS" - was launched on 12 June and ended the first September 2003. Preceded on the basis of Security Council Resolution No.1484, *It was the first independent EU operation* to avoid engaging in the previous NATO mission, and *the EU's first mission outside Europe*. The forces of the EU and the UN (MONUC) secure the stabilization of the situation and ensure distribution of humanitarian aid in the Democratic Republic of Congo (DRC) - especially in the Bunia region. Command of the operation was entrusted to France, which has made available the planning capacity and the majority of the total of approx.1,800 people involved. Apart from France joined four other EU member states and three non-member states.

3.1.4 AMIS II (Sudan - Darfur)

The European Union has launched the 18th July 2005 civilian-military supporting action to the African Union (AU) "AMIS" in Darfur, Sudan, at the request of the AU itself. Mandate to support this event ended on 31 December 2007 when AMIS was transferred to the joint mission of the African Union and the United Nations (UNAMID).The aim of the EU supporting action to strengthen the principle of African ownership and support of the AU and its political, military and police efforts to address the crisis in the Darfur region. EU supporting action comprised both civilian and the military component. They were trained African troops, the EU helped with tactical and strategic transport and to provide assistance and training police forces. During the two and a half yearly mandate was deployed several dozen military and civilian personnel from the EU. *However, the same assistance (air support, training of police officers) here from July 2005 to the end of 2007, NATO provided so that assistance has become a frequent target of criticism regarding the alleged failure both organizations in coordinating the actions of this type.*

3.2 Ongoing EU mission

3.2.1 EUPM (Bosnia and Herzegovina)

Police Mission, launched the 1st January 2003. *It was the first EU operation under ESDP*. In the initial phase (until 2005), it contributed to about 500 police officers from more than 30 countries. In accordance with the basic objectives of Dayton agreement, the mission today assists in establishing a functioning police system in Bosnia and Herzegovina, according to European and international standards. Its members in particular, monitor advice and supervise. At the request of Bosnia and Herzegovina the European Union then moved to the next phase, comprising 200 international staff in duration until the end of 2008.Their task was to support police reform and support the fight against organized crime. EUPM's mandate itself, which has been extended to June 2012, will continue to play an important role in the stabilization and European integration of this country.

3.2.2 EUFOR ALTHEA (Bosnia and Herzegovina)

On 12 July 2004 the EU Council decided to carry out further military operations in Bosnia and Herzegovina (BiH) under the European Security and Defence Policy. *As in the case of the mission Concordia, followed by the EU in Bosnia and Herzegovina in the former NATO stabilization mission - SFOR II, and Berlin Plus Mechanism has been used too.* "Althea" was launched on the 2nd December 2004 and initially consisted of over 7000 soldiers. The deployment took part in 22 Member States and 11 non-EU countries, which already had the largest share of France (as in the mission Concordia), but Germany and Great Britain. However, in April 2008, participated in the mission Althea from the original 33 states only 29 of them, to the same date in the country (according to supposedly very successful implementation of the transition strategy) just been deployed 1400 troops. Certain indicator of the success of Operation Althea may be in the future progress of BiH in terms of its efforts to gain EU membership (Council of the EU, 2012 b). Certainly it can be assumed, that this would mean for Operation Althea to achieve maximum success.

3.2.3 EUBAM Moldova and Ukraine

Border mission "EU BAM Moldova and Ukraine" operating in the border region of Moldova and Ukraine was essentially a response to a joint letter to the presidents of Moldova and Ukraine of 2 June 2005, which called for the EU to support capacity building for border management, including customs administration at the Moldovan-Ukrainian border, including at the border between Ukraine and the separatist region of Transnistria, where Moldovan authorities are prevented from operating. On 7th October 2005 memorandum was signed between the European Commission and governments of both countries to initiate the mission. Its mission is training and consulting to help improve the situation in the Moldovan-Ukrainian border, to ensure smooth customs services, to help detect smuggling, trafficking in people and other customs frauds. Mission. Was originally a term of two years, but it was extended until November 2015.

3.2.4 EU BAM Rafah (Israel - Gaza)

On 15 November 2005, the Palestinian Authority concluded with Israel "Agreement on Movement and Access", including the principles of the crossing at Rafah territory (Gaza Strip).21st November 2005 the Council welcomed the agreement and it was decided to launch the EU mission to help the Rafah border crossing - called “EU BAM Rafah” - to monitor the operation of this border crossing. The mission began on 30 November 2005. Rafah border crossing was last open to the presence of EU BAM Rafah on 9 June 2007. Since then, the mission remained on standby and is ready to resume within 24 hours (of course, waiting for a political solution).In May 2008 the Council extended the Mission until 24 November 2008, last re-extension is till 31 December 2012.

3.2.5 EUPOL Afghanistan

Police Mission "EUPOL Afghanistan" was launched in mid-June 2007.The mission is to contribute to sustainable and effective police action in Afghanistan in accordance with international standards. Mission staff monitors and implement counseling at the Afghan Ministry of Interior, regions and provinces. A EUPOL Afghanistan builds on the efforts and actions of other international institutions in the police and the rule of law. Its activities are aimed to cover the whole of Afghanistan, but it operates in 16 of 34 provinces. The mission had a mandate for at least 3 years. Council decided to gradually increase the number of personnel, so there are 400 employees in the area since December 2008.This will enable the mission, under a renewed mandate, to strengthen its activities in support of the Afghan National Police. On 18 May 2010, the Council has extended the mission for a period of 3 years, until 31st May 2013.

3.2.6 EULEX Kosovo

Since the stability of Kosovo is one of the priorities of the EU, on 16 February 2008 has been open a mission to support the rule of law in Kosovo - "EULEX Kosovo". *It is the largest civilian mission that was launched under the ESDP.* Main objective is to assist and support the Kosovo authorities in the rule of law - particularly the police, judiciary and customs administration. This is a technical mission, which acts as an advisory, monitoring and training body for local authorities. The mission reached full operational capability in April 2009.It currently employs 1,700 international police officers, judges, prosecutors and customs officers (working under UN Security Council Resolution No. 1244) and approximately 1,100 local employees.7With headquarters in Pristina, in the regions the EU staff is working within the police and the judicial system and mobile customs teams (along with local employees).The original mandate of the mission was for 2 years (the current mandate expires on 14 June 2012) but it is assumed that the mission will be terminated when the Kosovo authorities have enough experience and ensure compliance with the law for all citizens.

3.2.7 EU NAVFOR Somalia

As a result of escalation of piracy in East African coast, the European Union launched a military operation "EU NAVFOR Somalia" (Operation “Atalanta”), which is conducted with the support of several UN Security Council resolutions. The aim is to contribute to the protection of vessels of the World Food Program (WFP), which provides food aid to starving in Somalia, protect vulnerable vessels in the waters off the Somali coast, deter and suppress piracy and armed robbery at the Somali coast. The operation was launched on the 13th December 2008 and reached full operational capability in February 2009.*This operation is the first EU naval operation, which is conducted under the ESDP*. Council decided to extend the mission's mandate until December 2014.

4. The CSDP – NATO relations

The fact that 21 Member States of the European Union are members of NATO too is a reason enough for effective cooperation in the international area. The EU is currently the main partner of NATO and nothing changed on the existing views (particularly by members of the U.S. administration) on the uselessness and ineffectiveness of building its own military capabilities within the CSDP. The need to take responsibility for security in Europe through its own resources has been discussed for a long time.

Relations between the Common Security and Defence Policy of the EU and NATO are complicated by factors at several levels (Karásek, 2011, Smith, 2010). *In political area* the cooperation is hampered by the different targets of Member States, which often understand both the organization as a means to realize their national interests *In this context we can mention two main problems. The first* are opposing strategic visions of France and Great Britain regarding the desired form of the European security architecture, the ratio between the EU and NATO and the relationship between Europe and the USA. This conflict of opinion can still be seen as a basic fission line (even if its intensity has weakened President Sarkozy's decision to return France to NATO's military structures in 2009).While France seeks a strong CSDP and minimized (if possible) relations with NATO, Britain is trying to limit the development of CSDP rather to non-military aspects of CSDP and closely involved in cooperation with the Alliance.

In practice, there *is another big problem* - the dispute between Turkey and Cyprus, which also uses France to promote his vision of European security architecture. Turkey as a NATO member blocking sharing alliance information with Cyprus, which is not a NATO member and do not participate in the Partnership for Peace. Cyprus is a barrier to Turkey's formal work with the European Defence Agency, despite Turkey's contribution to ESDP and cooperation with EDA is of its essential interest.

Political issues will inevitably affect the institutional dimension of relations between the two organizations. Despite the existence of the Berlin Plus Mechanism cooperation works by EU institutions and NATO, much worse than it should and could. Meetings between the North Atlantic Council and Political and Security

Committee, are marked by the Turkish - Cypriot dispute which affects the "lower floors" of institutional structures too.

Similar problems exist on the military authorities level, such as mutual liaison offices (EU in the SHAPE, Alliance in the EU Military Staff), where the exchange of classified information is blocked by similar political pressures that adversely affect the cooperation of civil authorities.

Not only in political debates, but also in professional discussion can be traced back *two limit approaches* to EU-NATO relationship.

On the one hand there is the idea of formalized, strict division of labor between the two organizations, which would, for example, NATO's military threats and engaged in high intensity operations, while the European Union should focus on civilian aspects of crisis management, military operations of the lower intensity and of limited extent (this view could be called "British") or, alternatively, a solution where the NATO focuses exclusively on territorial defense and related tasks and the EU will devote crisis management outside Europe ("French" look).

On the opposite side is a absolute compatibility model, where all the capacities of both organizations were built by the same standards (and in the form of shared services modeled multinational units) and would only depend on political decisions in which situations will be this military and civilian capabilities used.

Putting any of these models into practice is most likely unrealistic, which does not mean that the functioning of EU-NATO relationship in those circumstances could not be improved. *A practical solution could be enhanced coordination approach, which would accept the necessary degree of specialization, pushed the maximum possible rate of the mutual compatibility and at the same time would strengthen formal mechanisms of cooperation.* Compatibility, respectively harmonization should be ensured at the level of administrative, doctrinal, and particularly in construction, training and equipping the armed forces, where the goal should be the usability of the armed forces for the needs of both organizations. *But a number of capacities suitable for expeditionary operations in Europe is still very limited due to restricted defence spending* (see Table 1), so any duplication, especially in this area completely is undesirable.

Table 1: Defence Expenditure in EU and US 2009-2010

Defence Expenditure	2009		2010		% change 2009-2010	
	EU	US	EU	US	EU	US
Total	€194 billion	€471 billion	€194 billion	€520 billion	0%	10,4%*
As % of GDP	1,7%	4,6%	1,6%	4,8%	-4,1%	3,0%
As % of Total Government Expenditure	3,3%	11,1%	3,2%	11,2%	-3,3%	1,3%
Per capita	392	1533	390	1676	-0,4%	9,3%*

*A significant part of this percentage change is due to exchange rate variations. If instead of values in euros, values in dollars would be used than the percentage chase for the US total Defence Expenditure between 2009 and 2010 would be 4,9% and the expenditure per capita would be 3,9%.
Source: EDA (2012)

5. Conclusion

As can be seen from the previous text is the whole reason to believe that a creation of European Security and Defense Policy in the late 90 of the last century was the European Union step in the right direction - at least in terms of "success" of the characterized missions.

Of course, raises many questions, both from the political, military or economic area, which may focus on the role of the EU in the near future - whether it has the ambition to "compete" NATO in creating security in different regions of the world, or participate in missions as an equal partner or the other hand, specialize in areas that best meet it and where it can achieve significant successes - such as police or civilian missions.

The above mentioned EU mission under CSDP are according to the official communique of the EU Council considered to be very successful (especially those completed), the views of independent experts, of course, can be critical (e.g. Kříž, 2005, Závěšický, 2006), the real success of current operations, however, will be confirmed by the political developments in these areas (countries).If we wanted to evaluate the EU's cooperation with NATO, for example under the Berlin Plus Agreements, we can say that in two missions - Concordia and Althea - when the mechanism has been used - the experience was very positive and beneficial for the European Union. It is true that there was not any large-scale operation (Concordia, about 350 soldiers, Althea at the beginning of 7000, currently about 1400), but showed which way can lead the way for successful cooperation. Too bad that with the AMIS II has been not reached common agreement with the EU and NATO and this led to basically two parallel operations (this is still the target of legitimate criticism).

In terms of possible further development of EU CSDP consider the most probable variant of “occasional” cooperation with NATO (in the Berlin Plus) - at least until to manage to “push” opinions of some EU member states (especially France) to promote major role in CSDP missions abroad.

Although the EU is still officially committed to the obligations of European Headline Goal of 1999, which provided the ability to form Combat Command at the Army Corps, in fact, its military ambitions are limited by parameters of Headline Goal 2010, which laid emphasis on combat battalion group size. Even after more than ten years of development of the CSDP, there are still problems related to communication and command, aviation and space exploration, monitoring, strategic airlift and sealift, etc (mainly due to low defence spending of the EU countries). Ambitious publication of the European Union as a global actor in the European security strategy could therefore raise the EU's partners’ unrealistic expectations. Their subsequent disappointment could inevitably undermine the credibility of the Union internationally.

I think with present military capabilities of the EU (Kaňa, 2007) would be a suitable solution to concentrate more on civilian and police missions, and a purely military operation likely in close cooperation with NATO, or implement them completely leave to the Alliance - but this is a topic about which more will be debated for a long time.

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Selected Aspects of the Innovation Environment in the South Moravian and the Moravian-Silesian Regions

Viktorie Klímová, Vladimír Žítek
Masaryk University
Faculty of Economics and Administration
Department of Regional Economics and Administration
Lipová 41a, Brno, Czech Republic
klimova@econ.muni.cz, zitek@econ.muni.cz

Abstract
Great attention is now being paid to the development of an environment favourable for launching and diffusion of innovations because they are generally considered a key factor of the socio-economic development. In the framework of the innovation policy the competences are transferred to regional level in a significant way. Locality and spatial proximity are important for innovation development, because they allow creating a unique competitive advantage. Each region is specific and different from others. Accordingly, it is not possible to accept the one-size-fits-all concept in the field of innovation development support but the support should be adapted to specific features of individual regions. In the article the differentness of innovation environment is demonstrated on the example of two regions – the South Moravian and the Moravian-Silesian Regions. These regions have several common characteristics but in some aspects they differ from each other. The contribution contains the comparison of selected aspects that form the innovation environment in both regions.

Keywords: *Innovation, innovation environment, innovation system, region*

JEL codes: *O31, O32, O38, R11, R58*

1. Introduction

Innovation policy strives to create favourable conditions for introduction and diffusion of innovations. Its importance is also illustrated by the fact that innovations are generally considered a key factor of the socio-economic development and an important tool for productivity increase and added value growth. The Czech Republic has dealt with this topic intensively since the turn of the century. Also a reform of innovation policy has taken place recently in the CR.

The Europe 2020 strategy, which provides main objectives and development priorities of the EU till 2020, has been influenced by the importance of innovations as well. One of its priorities is the smart growth based on knowledge and innovations; therefore, the EU wants to increase investments in R&D and the education level of its population. Also the cohesion policy for the period of 2014–2020 will be affected by this strategy, because the less developed regions will have to invest 50 % and the more developed regions even 80 % of all obtained resources in the three priorities resulting from the strategy (R&D and innovations, competitiveness of SMEs, energy targets). Each state of the EU should set its own national goals that will contribute to reaching of the European ones. The Czech government has defined 13 specific objectives related to the five main fields (employment, R&D investments, energy efficiency, education, social inclusion). Most of them concerns employment (Government of the CR, 2010). The innovation environment in regions can be affected especially by the R&D and education targets.

Another trend in innovation policy has been detected over the world in the last decades and it is the transfer of competences to regional level. The spatial proximity allows regions to create a unique competitive advantage achieved by e.g. tacit knowledge sharing, mutual formal and informal linkage of players and networking. Concepts of national and regional innovation systems, which serve as an analytical framework creating an empirical base for innovation policy creation, deal with innovation importance on a theoretical level (Doloreux, Parto, 2005). Lundvall, Cooke, Nelson, Edquist, Tödtling, Freeman and others can be classified as the main representatives of these concepts. Generally, we can define the innovation system as a group of players in the private and public spheres whose activities and interactions influence development and diffusion of innovations in a particular territory (state, region). It follows that the technologies are a necessary but not a sufficient condition for economic development of regions. Also long-term intangible assets are important. In connection with this, Rutten and Boekema (2010) define two basic conditions that have to be met so that the region gains benefit from innovation activities of its firms: 1) cooperation in regional networks, and 2) usage of regional innovation sources or tangible property.

The transition to knowledge economy is often mentioned in the context of the growing importance of innovations. The features of the knowledge economy are summarized by Brinkley (2006): the knowledge economy does not mean new guidelines but it represents a slight discontinuity from the past and is present in all sectors of economy. It is also characterized by high intensity of ICT usage, well-educated workers, growing share of GDP created by intangible assets, innovative organizations and importance of information.

B. A. Lundvall is a recognized author who connects the innovation system concepts with the meaning of knowledge (e.g. 2010, 1994). Lundvall distinguishes between codified knowledge and tacit knowledge. The codified knowledge can be written down or recorded and in this way it can be available to other people. On the contrary, the tacit knowledge can only be obtained through our own experience. The tacit knowledge represents a source of competitive advantage because it is fixed to a specific region and locality and it is non-transferable. Lundvall and Johnson (1994) differentiate among four types of knowledge: know-what, know-why, know-how and know. Know-what and know-why usually represent the codified knowledge and are especially important for so called linear innovation mode (sometimes called STI mode – Science, Technology and Innovation). Know-how and know-who represent the tacit knowledge and are important for so called interactive innovation mode (DUI mode – Doing, Using and Interacting). More details are presented in e.g. Jensen et al (2007) and Skokan (2004).

When implementing an innovation policy it is necessary to bear in mind that each region is specific and different from the others. Accordingly, it is not possible to accept the one-size-fits-all concept (e.g. Tödtling and Trippl, 2005, Bristow, 2010) but if we wish an efficient and effective innovation policy it should be adapted to specific features of individual regions. Tödtling and Tripple have demonstrated this problem on the example of three types of regions that have different problems and those should be resolved in different ways: peripheral regions, old industrial regions and metropolitan regions.

Complicated implementation of an innovation policy is reflected by 'the innovation paradox': a system failure causes insufficient innovation performance. The regional innovation paradox emphasizes the conflict between a relatively higher need for investments in innovations in less developed regions on the one hand and their lower ability to absorb public resources for innovation activities on the other hand (Skokan, 2010, Oughton et al, 2002). Here, the conflict between regional policy, which makes effort to eliminate regional disparities, and innovation policy, which on the contrary reinforces the position of the most developed regions, is apparent.

2. Aim and methodology

The aim of the article is to confirm the hypothesis that the approach to an evaluation of regional innovation systems needs to be differentiated with respect to their structure which is affected by previous development, institutional framework and real economic potentials. At the same time, it is necessary to prove that parameters of a regional innovation system can be improved using public support, especially resources provided in the framework of the EU cohesion policy.

For the purposes of this study two regions have been selected: the South Moravian Region (SMR) and the Moravian-Silesian Region (MSR). The main reason for their selection is their similar size as regards the number of inhabitants (the MSR has 90 thousand more inhabitants) and existence of a strong capital (the second and the third largest cities in the CR, both with more than 300 thousand inhabitants). But the regions are also very different. Especially the difference in their economic structure is publicly known. From the point of view of innovations, which have a considerable tendency to concentrate in larger residential areas (There is a direct causality with the concept of agglomeration effects here. e.g. Maier, Tödtling, 1998), the fact that there are several towns with more than 50,000 inhabitants in the MSR can play a certain role. There is no such town in the SMR, the second largest town of the region Znojmo has only 34,000 inhabitants (CZSO, 2011c).

These key parameters have been set for the evaluation of a regional innovation system:

- specialized institutions supporting system management (organizations responsible for innovation development in regions),
- regional innovation strategy (setting of goals and responsibilities),
- higher education (people as an important source for innovations),
- research and development (science capacities as a source for innovations),

- economic environment (conditions for doing business),
- public support for innovations (ability to raise capital from the operational programs),
- innovation infrastructure (science parks and business incubators that support innovative firms and their cooperation with R&D institutions).

On the basis of the analysis of the stated parameters of regional innovation systems of both regions it will be possible to verify the above mentioned hypothesis and achieve the set objective.

3. Problem solution

3.1 Specialized institutions supporting management of innovation system

The institutional framework of a regional innovation system in the Czech Republic falls within the competences of regions with respect to the existing administrative arrangement. Political responsibility lies with the regional board and council, executive competences are divided between the council and the regional authority. Individual regions can transfer some part of the competences to specialized institutions that concentrate qualified human resources with knowledge required for an efficient functioning of the system.

The South Moravian Region is an example of a region that has placed a substantial part of competences into the sphere of activity of the South Moravian Innovation Centre (JIC), an institution co-established by four Brno universities and the City of Brno. The main task of JIC is to support innovative enterprises, commercialization of R&D and it is also a provider of the innovation infrastructure (JIC, 2012). JIC is connected with preparation and creation of the Regional Innovation Strategy (RIS) of the South Moravian Region and it is responsible for management and implementation of the strategy. Another institution that has been entrusted some competencies within the innovation system is the South Moravian Centre for International Mobility, which focuses on support of talented students and human resources for R&D in the South Moravian Region (JCMM, 2012). This Centre is responsible for some projects of RIS within the Human Resources priority.

The Moravian-Silesian Region has established the Regional Development Agency Ostrava (ARR) as its service organization. Its orientation is slightly more general (wider) and innovations are only one of its activities (the others are regional development, tourism, education; ARR, 2012). ARR is responsible for implementation of several projects in the framework of the Regional Innovation Strategy of the MSR across all priorities. It shares the responsibility with the Regional Authority of MSR.

3.2 Regional Innovation Strategies

Looking at the regional innovation strategies of both regions there is an apparent difference in the tradition or philosophy of their creation. While for the SMR it is a continuous process where the first RIS was gradually replaced by the RIS2 and consequently RIS3, in the case of MSR the RIS had existed since 2003 so it could hardly play the role of a tool for innovation environment management. The MSR was aware of this and it started (through the ARR) preparing the new RIS which was approved in autumn 2010.

Both of the strategies were created in a relatively short interval and it is evident that the RIS of MSR was inspired by the RIS of SMR to a certain extent. This is a good opportunity for comparison and evaluation of both documents because they have the same structure respecting the logics of vision (global objective) – priorities – specific objectives. From the sector point of view their orientation is slightly different (SMR – machinery industry, electrotechnology, ICT, life sciences; MSR – machinery industry, IT and information society, new materials and nanotechnologies, environmental technologies, biomedical research, creative fields), but the difference often lies in terminology rather than in real content.

The SMR declares that it would like to become the most innovative region in the CR and be one of the 50 most innovative regions in the EU, increase its regional competitiveness through cooperation of the research sphere with firms and maximize contributions of ICRC and CEITEC projects that are being carried out nowadays (JIC, 2009). The MSR strives to reach a position of a developing knowledge-oriented region of Central Europe based on the interaction of traditional and new perspective sectors. It also wants to increase its competitiveness thanks to support of excellent R&D with emphasis on its commercialization and use of quality system of lifelong learning (MSR, 2010).

As regards the priorities, the MSR does not have the need to define the consultancy and services for SMEs as a separate priority and instead of this it sees the coordination and implementation of RIS as a separate priority. Naturally, this issue is also included in the RIS of the SMR but not as separate. Setting an implementation of the RIS as a priority can be considered unusual. There is full agreement in the remaining three priorities.

It is worth noting that the MSR has changed the structure of specific objectives since 2012 (MSR, 2012) and this is caused partly by their consolidation and partly by their reduction or expansion. For a better orientation in the system of specific objectives of both strategies, we can compare their numbers – this to some extent reflects the importance attached to the individual priorities by the regions (see table 1).

Table 1: Priorities and the number of their specific objectives

	RIS of SMR	RIS of MSR 2010	RIS of MSR 2012
Technology transfer	2	3	5
Human resources	7	3	3
Internationalization	3	3	2
Consultancy and services for SMEs	3	-	-
Coordination and implementation of the RIS	-	3	1

Source: JIC (2009), MSR (2010), MSR (2012)

The RIS of SMR sets 15 specific objectives, while the RIS of MSR has decreased the number of objectives from 12 to 11. In a more detailed view, the difference is even more pronounced because the RIS of SMR defines partial activities within individual specific objectives that will lead to meeting the objectives and the projects are assigned to those activities. In the RIS of MSR projects are assigned directly to the objectives.

It is possible to state that both RIS are good quality documents with regard to structure as well as content and they have potentials to contribute to the development of the innovation environment in the regions. In spite of this it seems the MSR has not yet made up for the loss suffered in 2003–2010 when a functioning document was absent as the region itself acknowledges. In 2012 more good quality projects are added in the MSR region and these can contribute to meeting of the RIS specific objectives. In comparison, the South Moravian document is more sophisticated and reflects the experience gained in the past, as confirmed by the number and especially the structure of supported activities and implemented projects.

3.3 Higher education

Also universities are among the entities that are parts of regional innovation systems. They carry out not only educational activities that are perceived as their primary function but also research activities. The results of research are naturally transferred into teaching and only in this way they can provide high quality and up-to-date education to their students. The ability to commercialize university research results is perceived as a part of the innovation potential of a territory.

There are seven public universities and one state university in the observed regions. They provide subjects of study oriented to preparation of natural science, medical, technical and ICT professionals. These universities have a specific position in the regional innovation system. In the South Moravian Region universities are concentrated in Brno (except for one faculty). On the contrary, in the Moravian-Silesian Region there are two university cities – Ostrava and Opava. The Silesian University in Opava has one faculty located out of Opava – in Karviná. Although the concentration of universities in SMR in the capital would be perceived as a certain disadvantage, it is not possible to confirm this in practice especially due to very good accessibility of the city.

As far as the number of universities (5 in SMR and 3 in MSR) and their faculties (27 in SMR and 16 in MSR) is concerned there is a difference between the regions. The difference is still more evident with regard to the number of students. Including master and doctoral students (i.e. part of ISCED 5A and whole ISCED 6), the number of master students is over 2.5 times higher (28,113 vs. 10,593) in the SMR and the number of doctoral students is 3 times higher (6,188 vs. 2,192) than in the Moravian-Silesian Region (UIV, 2011).

The above mentioned data aptly characterize the situation of higher education in both regions. On the other hand, it is necessary to be aware of the fact that a lot of subjects of study prepare students for routine professions with a low or none potential for innovation creation. If we take into consideration only the natural sciences and technical branches that have high innovation potential the situation in both regions is completely different. More master and doctoral students study these two branches in the Moravian-Silesian Region than in the South-Moravian Region (see table 2).

Table 2: Number of students of natural sciences and technical branches in the South Moravian and the Moravian-Silesian Regions (2010)

	South Moravian Region	Moravian-Silesian Region
Natural sciences	1,792	2,146
Technical branches	2,450	3,302

Source: CZSO (2011a)

3.4 Research institutions

Research and development is considered one of the main sources of innovations. It is determined not only by the spatial arrangement (research institutions are considerably concentrated) but also by the availability of human and financial resources. The financial resources in the Czech Republic depend on financial possibilities of the developing economy. At the same time, there are significant regional differences. The observed regions confirm this differentiation.

There are 420 R&D workplaces in the South Moravian Region while in the Moravian-Silesian Region there are only 228 R&D workplaces (CZSO, 2011d). Workplaces oriented to technical branches predominate in both regions. The most of these workplaces are found in the business sector.

Available human resources are the key prerequisite for research and development. 8386 researchers (expressed in HC units) work in the South Moravian Region and there are 2921 researchers in the Moravian-Silesian Region (CZSO, 2011d). If we express these in FTE units, the difference is three times higher (5446 in the SMR vs. 1817 in the MSR). The researchers (HC) work especially in technical branches (65% in the MSR and 40 % in the SMR). In the South Moravian Region the employment in medical and natural sciences is also high (as well as the human sciences with usage of FTE indicators). Most of all researchers (more than 50 % of HC) work at universities (but this is not valid for the FTE in the SMR).

About 8.4 mld. CZK was invested in research and development in the South Moravian Region in 2010. These expenditures were invested especially in the enterprise sector. The most important financial source in the MSR is the enterprise sector (62.8 % of resources) and in the SMR the government (46.1 %) and the enterprise (42.3 %) sector. Most of all resources are allocated into technical sciences (more than 80 % in the MSR, 61.5 % in the SMR), distantly followed by natural sciences (CZSO, 2011d).

3.5 Economic environment

The sectoral structure of economy expressed by share of employment proves that the established clichés are not true. The South Moravian Region is not an agricultural region and the MSR is more industrial that the SMR but the difference is not as high as one would expect. The decisive part of industry is the manufacturing industry (consisting of B, C, D and E sections of CZ-NACE classification) whose share is 23.4 % in the SMR and 29.0 % in the MSR (CZSO, 2011e).

As regards introduction of innovations, all sectors are important, not only is the manufacturing industry where the highest amount of technological innovations conducted. According to the methodology used for the first time in the innovation survey TI2008 also the enterprise that has only non-technological innovation is considered innovative. Non-technological innovations arise in a wider range of enterprises.

The question of involving or not involving non-technological innovations significantly influences the evaluation of the innovation environment in the selected regions. According to TI2010 (CZSO, 2012), the total share of innovative firms is 53.5 % in the MSR and 51.8 % in the SMR. As regards enterprises with technological innovation, which are crucial for regional competitiveness growth, their share is 33.5 % in the MSR and 37.0 % in the SMR.

If the estimations of the firms interviewed in the innovation survey are right, the financial effects appreciated through the ratio of costs and revenues connected with innovations are significantly different in the selected regions. Enterprises in the MSR invested in technological innovations CZK 8.7 mld. in total and got CZK 320.5 mld. for innovated products in the period of 2008–2010. Enterprises in the SMR spent only CZK 5.9 mld. and earned CZK 179.0 mld. (CZSO, 2012).

Public support of enterprises with technological innovation is also an interesting indicator for a regional innovation system. While 39.7% of enterprises got some public support in the MSR, it was only 20.4% in the SMR (CZSO, 2012). The difference in the share of enterprises that obtained the support is nearly the same with respect to various sources of support.

3.6 Operational Program Research and Development for Innovations

The aim of the OP Research and Development for Innovations (OP RDI) is to support R&D infrastructure. The Program is divided into four thematic priority axes. In our analysis we focused on the first two of them because they have the biggest impact on R&D carried out in regions and they represent the substantial part of the whole program. Priority axis 1 is aimed at European centres of excellence, priority axis 2 supports regional R&D centres. The analysis is carried out according to the place of implementation. If the project is implemented in more than one region it is assigned to the region where the recipient of subsidy has their headquarters. 47 projects of total value CZK 40.5 mld. were supported till April 2012.

Table 3: Subsidies from the OP RDI

	Priority axis 1			Priority axis 2			Priority axes 1 and 2		
	subsidy (mil. CZK)	pro-jects	subsidy/ inhab. (CZK)	subsidy (mil. CZK)	pro-jects	subsidy/ inhab. (CZK)	subsidy (mil. CZK)	pro-jects	subsidy/ inhab. (CZK)
SMR	8,259	3	7,164	4,691	11	4069	12,950	14	11,234
MSR	1,819	1	1,462	1,733	5	1392	3,552	6	2,854

Source: MŠMT (2012), authors' own calculation

The table presents subsidies allocated within the individual priority axes. The projects carried out in the SMR have obtained CZK 13 mld. in total from which about CZK 8.3 mld. has been assigned to projects under the first priority axis. In the MSR about CZK 3.6 mld. has been allocated from which about CZK 1.8 mld. for the European centers of excellence. The SMR has obtained 32% of all allocated resources which is the second highest share among all Czech regions. The higher amount has been allocated only in the Central Bohemian Region (35%) where also the projects of entities registered in Prague are often carried out. The share of MSR in the allocated subsidies is about 9% and it means the third place in the CR. In the SMR 14 projects have been supported (3 of them within the first priority axis) and in the MSR 6 (1 of them within the first priority axis). The difference between both regions also lies in recipients of the subsidies. While in the MSR all the projects have been submitted by the VŠB University, in the SMR two universities, two hospitals and four research institutes have become the recipients of the support. The CEITEC and the ICRS are the most important projects in the SMR, the IT4Innovatons is the most important project in the MSR.

3.7 Operational Program Enterprise and Innovations

Operational Program Enterprise and Innovations (2007–2013) focuses on the business environment development and support of enterprises, especially the innovative ones. Most of resources of this program are given to firms but also universities, research institutes and territorial administrative units can get the support. The OPEI is divided into six thematic priority axes. In our analysis we deal with programs that are aimed at introduction of innovations most of all. It means the Innovation Program and the Potential Program that are parts of the 4th priority axis and the Prosperity Program that is a part of the 5th priority axis. The analysis is also carried out according to the place of implementation.

3.7.1 Innovations Program

This program is divided into two subprograms: Innovations – Innovation Projects and Innovations – Protection of Intellectual Property Rights (IPR). Subprogram Innovations – Innovation Projects has redistributed about CZK 13 mld. up to now, 10.4% of which has been allocated to the projects in the SMR and 13.1% in the MSR. The MSR is placed second among all Czech regions (the Central Bohemian Region is the first) and the South Moravian Region is the fifth. Although the MSR got slightly fewew projects than the SMR, its total subsidy is higher. When the obtained support is recalculated to one inhabitant, the subsidy is slightly higher in the SMR. In the SMR 7.11 projects per 100 thousand inhabitants have been supported, in the MSR 6.19 projects. Subprogram Innovations – IPR has allocated about CZK 69 mil. among recipients, 20.5% of which to applicants in the SMR and 10% in the MSR. With respect to the total amount of subsidy the SMR is in the first position and the MSR in the third one (after the Olomouc Region). As regards the number of supported projects the MSR exceeds the Olomouc Region three times. The number of projects per 100 thousand inhabitants is 6.42 in the SMR and 3.62 in the MSR. More detailed information on both subprograms is shown in table 4.

Table 4: Subsidies from the OPEI – Innovations Program

	Innovations – innovation projects			Innovation - IPR		
	Subsidy (thous. CZK)	Projects	Subsidy/ inhab. (CZK)	Subsidy (thous. CZK)	Projects	Subsidy/ inhab. (CZK)
SMR	1,358,990	82	1,179	14,149	74	12,3
MSR	1,714,025	77	1,377	6,852	45	5,50

Source: CzechInvest (2012), CZSO (2011b), authors' own calculation

3.7.2 Potential Program

The Potential Program provides support to building or enlargement of development centres (departments) in enterprises. In the framework of this program subsidies of total amount CZK 4.3 mld. were allocated till April 2012, 16.3% of which went to the SMR and 9.1% to the MSR. Higher support has been allocated only in the Central Bohemian Region (22.9%). About 4.4 projects per 100,000 inhabitants have been carried out in the SMR and 1.85 projects in the MSR. With respect to this the most successful was the Zlin Region with 5.4 projects per 100 thousand inhabitants. According to subsidy per capita, the SMR is placed second and the MSR ninth. However, the average subsidy per project has been higher in the Moravian-Silesian Region (CZK 17.2 mil. compared to CZK 13.9 mil. in the SMK). More detailed information is presented in table 5.

Table 5: Subsidies from the OPEI –Potential Program

	Subsidy (CZK)	Projects	Subsidy/ inhab. (CZK)
South Moravian R.	710,246,000	51	616
Moravian-Silesian R.	395,804,000	23	318

Source: CzechInvest (2012), CZSO (2011b), authors' own calculation

3.7.3 Prosperity Program

The Prosperity Program supports building and operation of business incubators, science and technology parks and technology transfer centres. A small part of the resources is oriented to the establishing of business angel networks. Up to now the program has allocated CZK 3.9 mld. and the MSR has obtained 19.7% of this amount (the 2nd place in the CR) and the SMR 14.9% (the 4th place). Most of all subsidies have been allocated to the Central Bohemian Region (24.7 %). Altogether 47 projects have been supported, 11 of which in the SMR and 7 in the MSR. It is also necessary to take into consideration that a similar program had been conducted in the last programming period and therefore some regions do not need to build further innovation infrastructure.

Table 6: Subsidies from the Prosperity Program

	Subsidy (thous. CZK)	Projects	Subsidy/ inhab. (CZK)
SMR	585,523	11	508
MSR	775,798	7	623

Source: CzechInvest (2012), CZSO (2011b), authors' own calculation

3.8 Innovation infrastructure

Innovation infrastructure, which means especially business incubators and science and technology parks (STP), is another tool for innovation support. With respect to the character of this supportive tool the establishment of incubators and STPs is usually initiated by regional players and they represent one of the measures designed in regional innovation strategies.

Both regions are very active in building the innovation infrastructure and several incubators and STPs are concentrated in their territories. However, they are mostly located in the regional capital. Nevertheless, some differences between regions can be found. The South Moravian Region has established a specialized institution for operating the most important incubators and STPs – the South Moravian Innovation Centre. Nowadays, it runs two technology incubators and STPs (INTECH) and biotechnology incubator INBIT. It will also run some infrastructure that is now being prepared, e.g. incubator INMEC that will focus on nano- and microtechnologies, new materials and communications and managing technologies. The innovation infrastructure in the SMR is built near two biggest universities in Brno – infrastructure for life sciences firms is situated near the campus of the Masaryk University and infrastructure for technology firms is usually situated near the University of Technology. There is also the Czech Technology Park, where a lot of multinational firms are settled. Smaller incubators are also constructed by the Research Institute of Building Materials in the southern part of the city. About 10 incubators and STPs are in the preparation now.

The Moravian-Silesian Region also has a long tradition in running the innovation infrastructure, but each of its facilities has different management. The VSB University is an important partner that participates in several of these facilities. The oldest incubator is managed by the BIC Ostrava company. Ostrava Science and Technology Park that was founded by the City of Ostrava and several universities is also important. The VSB also has its own incubator and one incubator is in the property of a private college. The most important projects being built are the 4MEDi and Technology Centrum Ostrava. The first of them will be situated near the University Hospital in Ostrava and it will focus on enterprises in the fields of biotechnology, nanotechnology and modern medicine. The second will focus on firms in the fields of electronics, mechatronics and use of alternative sources of energy. Outside of Ostrava one incubator is settled in Třinec. Activities of incubators in Fulnek and Karviná are now being cut. The Action Plan of the RIS does not contain any project for innovation infrastructure building.

4. Conclusion

Evaluating the regional competitiveness through the concept of regional innovation systems is one of modern approaches to innovation research. A regional innovation system is created by a network of economic entities and a wide range of relations that represent individual activities or processes that arise among these entities. The actual operation of a regional innovation system in practice can be tested on the example of regions that are expected to have a certain quality of system parameters. The South Moravian and the Moravian-Silesian Regions are such regions undoubtedly. These regions are similar in some general characteristics but they differ in other aspects.

The South Moravian Region has a sophisticated institutional framework embodied by the South Moravian Innovation Centre and its activities are under the patronage of the RIS whose third version is a universal conception document. In the field of education this region is characterized by a considerable concentration of universities into the regional capital. The high number of students corresponds with the high number of those that study natural science and technical branches, which are crucial for innovations. In the field of research and development, this centre is only comparable with Prague within the CR, concerning the number of entities or employees as well as the volume of financial resources. Nowadays, enormous development of innovation and enterprise infrastructure is in progress and this has been caused especially by the support from operational programs. About 37% of all firms carry out technological innovations which in accordance with above mentioned means a significant potential for further development.

The Moravian-Silesian Region also has its own RIS that has a potential to be a good tool creating a framework for innovation development. The region has established the Regional Development Agency and they share competencies in the field of innovation support. There are three universities located in the region. Although they have a lower number of students than universities in the SMR they have a higher share of students of natural science and technical branches. As far as the indicators of R&D are concerned, they are incomparable with those of the SMR, nevertheless they correspond with the level of indicators in most regions in the CR. In the MSR the innovation infrastructure has been also considerably developing in recent years and projects financed from the OPEI and the OP RDI have been carried out. The innovation environment in the region is of high level, 33.5% of all firms have some technological innovation and innovative enterprises represent 53.5% of all enterprises. This fact together with the high volume of revenues resulting from innovations makes the region competitive with economy based on the improving parameters of the innovation environment.

The submitted study carried out on the example of the South Moravian and the Moravian-Silesian Regions has proved that the institutional framework, existing conditions in education and research as well as the sectoral structure are different in both regions. In accordance with theoretical concepts, this constitutes a reason for a differentiated set-up of public support for innovation activities.

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US-EU Bilateral Trade Relations – Transatlantic Economic Issues

Marcel Kordoš
Alexander Dubček University in Trenčín
Faculty of Social and Economic Relations, Department of Public Administration and Regional Development
Študentská 2, Trenčín, Slovak Republic
marcel.kordos@tnuni.sk

Abstract
The article deals with the mutual problematic US-EU trade issues within the transatlantic economic relations. The paper is focused on problematic aspect analyses such as the US and EU common trade agenda, WTO dispute settlements regarding the most drivers trade aspect issues – antidumping, countervailing procedures, and trade wars and so on. In the paper we try to find out weather and to what measure the problematic trade issues between the US and EU can affect their economic cooperation in the global system of international economics. The point is that those two economies are the main engines of the international economics system and the overall world economic growth and quality of life depends on their development of which base is their economic partnership within their foreign trade relations.

Keywords: *Antidumping and countervailing procedures, dispute settlements, foreign trade policy, international economics, World Trade Organization*

JEL codes: *F13, F42, F59*

1. Introduction

Dispute settlement activities with the US continue to represent the vast majority of the EC's overall WTO dispute settlement activities. Regarding the substance of the EC's offensive cases with the US, a majority of them concerns the misuse by the US of trade defense instruments (antidumping, countervailing duties and safeguards) as well as subsidy related issues. Another important category in these disputes relates to intellectual property rights (trademarks, copyrights and patents). Finally, the carousel case demonstrates the permanent risk of unilateral action from the part of the US. In terms of economic sectors covered, it should be noted that almost half of the EC's offensive cases relate to the steel sector.

According to Jovanović (2005) the European business is being increasingly affected by growing US national security restrictions. The EU recognizes that there are security issues to be resolved relating to trade and investment, particularly in the aftermath of 9/11, but has long expressed concern about excessive use which could be interpreted to be a disguised form of protectionism. The EU and the US together account for 37% of world trade and bilateral investment flows between the two economies are worth around €1,5 trillion.

Although it praises some improvements, such as the scrapping of a subsidy tax scheme for foreign subsidiaries of US companies and a change in anti-dumping rules that were incompatible with WTO principles, the Commission complains that European companies continue to face steep regulatory barriers when exporting to the US. Targeted legislation includes the Patriot Act, the Bioterrorism Act and the Container Security Initiative, which the Commission says put severe burdens on transatlantic trade by adding to costs and delays for EU exporters.

The aim of the article is on the basis of EU and US trade policies and their WTO's dispute settlements analysis to find out weather and to what measure the problematic trade issues between the US and EU can affect their economic cooperation in the global system of international economics.

2. The US trade policy

The Constitution gives Congress express power over the imposition of tariffs and the regulation of international trade. As a result, Congress can enact laws including those that: establish tariff rates; implement trade agreements; provide remedies against unfairly traded imports; control exports of sensitive technology; and extend tariff preferences to imports from developing countries. Over time, and under carefully prescribed circumstances, Congress has delegated some of its trade authority to the Executive Branch. Congress, however, has, in some cases, kept tight reins on the use of this authority by requiring that certain trade laws and programs be renewed; and by requiring the Executive Branch to issue reports to Congress to monitor the implementation of the trade laws and programs. (Jovanović, 2005)

Near the end of the Second World War U.S. policy makers began to experiment on a broader level. In the 1940s, working with the British government, the United States developed two innovations to expand and govern trade among nations: the General Agreement on Tariffs and Trade (GATT) and the International Trade Organization (ITO). GATT was a temporary multilateral agreement designed to provide a framework of rules and a forum to negotiate trade barrier reductions among nations. The growing importance of international trade led to the establishment of the office of the U.S. trade representative in 1963 by Executive Order 11075, originally called The Office of the Special Representative for Trade Negotiations. (Jovanović, 2005)

3. The EU common trade policy

Europe‘s single most important contact with the world beyond its borders is through trade. Every day, Europe exports hundreds of millions of euros worth of goods and imports hundreds of millions more. Europe is the world‘s largest exporter of manufactured goods and services, and is the biggest export market for more than one hundred countries. Trade is the motor of Europe‘s prosperity. New technologies, faster communications and more efficient means of transport have made it possible to produce, buy and sell goods around the world, underpinning Europe‘s place in the world. The 27 Member States of the European Union share a single market, a single external border and a single trade policy. This gives the European Commission tremendous leverage when it talks trade with the EU‘s partners. It means there is one negotiation, one negotiator – the Commission - and at the end of the process just one agreement instead of 27 different sets of trade rules with each of our trading partners. The Commission also represents the EU Member States in the World Trade Organization. By speaking with one voice, the EU has the weight both to shape an open global trading system based on fair rules and to ensure that those rules are respected. (Lipková, 2011)

The EU has a common trade policy. This means that the EU and its 27 EU Member States act as one single jurisdiction in all trade-related matters. International agreements concluded by the EU are binding on the EU Institutions and on its Member States. The legal basis for the EU's trade policy is Article 133 of the European Community (EC) Treaty. On this basis, the European Commission negotiates on behalf of the Member States in consultation with a special committee, the so-called "133 Committee". The 133 Committee is composed of representatives from the 27 Member States and the European Commission. Its main function is to coordinate the trade policy of the EU. The 133 Committee discusses the full range of trade policy issues affecting the EU, from the strategic issues surrounding the launch of rounds of trade negotiations at the WTO to specific difficulties with the export of individual products (e.g., textiles), and considers the trade aspects of wider EU policies in order to ensure consistency of policy. In this Committee, the European Commission secures endorsement of the Member States on all trade policy issues. The major formal decisions (for example agreement to launch or conclude negotiations) are then confirmed by the Council of the European Union. (Jovanović, 2005)

The objective of the EU's Common Commercial Policy is to contribute, in the common interest, to the harmonious development of world trade, the progressive abolition of restrictions on international trade, and the lowering of customs barriers. The EU's Common Commercial Policy covers all the main measures affecting trade in goods and services and almost all trade-related issues. Trade-related areas partially covered by the common trade policy include: company law, indirect taxation, standards and other technical regulations, and enforcement of intellectual property rights.

4. WTO dispute settlements (US versus EU)

The United States and the European Union, acting in concert, are the superpowers of the world trading system. Together they accounted for 35% of world merchandise trade in 2004 and 60% of the world’s production of goods and services in 2003. Cooperation and joint leadership between the two partners have historically been the key to all efforts to liberalize world trade on a multilateral basis, including the creation of the General Agreement on Tariffs and Trade (GATT) in 1948 and the World Trade Organization (WTO) in 1995. Trade tensions, disputes, and rivalry coexist alongside and, in part, result from these cooperative and generally positive currents. Bilateral trade disputes have been an important part of the relationship during the Cold War as well as after. They are nothing new nor unexpected given the huge volume of commercial interactions.

Historically, with the possible exception of agriculture, the disputes have been managed without excessive political rancor, perhaps due to the balanced nature of the trade and investment relationship. Policymakers and many academics often emphasize that the U.S. and EU always have more in common than in dispute, and like to point out that trade disputes usually affect a tiny fraction (often estimated at 1-2 percent) of the trade in goods and services. In the middle of this decade, however, Washington and Brussels are still at loggerheads over a number of issues, ranging from bio-engineered food products and aircraft to the treatment of agriculture in the Doha Round of multilateral trade negotiations. The conflicts have not been easy to resolve, and some of the efforts at dispute resolution have led to escalation and tit-for-tat retaliation. Instead of compromising in an effort to find solutions, policymakers on both sides sometimes appear more interested in getting even. (Neumann, 2001)

Congress has been in the middle of many of the trade disputes. By both crafting and passing legislation, Congress has supported the efforts of U.S. agricultural and industrial interests to gain better access to EU markets. Congress has pressured the executive branch to take a harder line against the EU in resolving a number of disputes, but has also cooperated with the Administration in crafting compromise solutions. Combined with a growing value of trade now being disputed, the political and economic effects of trade discord between Brussels and Washington are important questions.

4.1 Antidumping and countervailing procedures

A variety of legal procedures, sanctioned by the WTO, provides domestic producers temporary protection against both “fair” and “unfair” trade practices. These include safeguard or import relief procedures for fair trade and anti-dumping and countervailing procedures for unfair trade practices. While these procedures are sanctioned by the WTO, and often referred to as contingency protection, either side’s implementation of these procedures is often controversial. A case in point has been the Continued Dumping and Subsidy Offset Act (CDSOA), or Byrd Amendment. Enacted by the U.S. Congress in October 2000, this provision required that the proceeds from antidumping and countervailing duty cases be paid to the U.S. companies responsible for bringing the cases, instead of to the U.S. Treasury. Soon after enactment, the EU and eight other parties challenged the statute in the WTO on the grounds that the provision constituted a “non-permissible specific action against dumping or a subsidy” contrary to various WTO agreements. Basically, the plaintiffs argued that the action has been fitted U.S. companies doubly: first, by the imposition of the antidumping or countervailing duties and, second, by receiving the duties at the expense of their competitors. (Cooper, 2009)

4.2 Subsidies, dumping, tariffs, duties, quotas

While the EU has taken broad powers to control subsidies, the US does not have anti-trust legislation restraining and restricting subsidies. It is clear that in the EU such controls respond to a reality of persistent and widespread government subsidization. The truth is that in the US various forms of subsidy occur that in the EU would attract the attention of the Commission as representing forms of state aid. Typically, they are justified as supporting either "industrial policy" or "regional development" and they represent in aggregate substantial public expenditure. However, such subsidies do not qualify for consideration by the agencies with authority for implementing anti-trust law.

It is always tempting to believe that setting up a new specialized agency would lead to more rational decisions. But in this case (as in many others) the proposal does not tackle the underlying causes of the problems afflicting the Commission. Setting up a new body would work only if the new agency truly had greater independence than Directorate General IV (the Commission's body now responsible for competition policy) and had independent powers of enforcement. To establish such a body would require great boldness as well as unanimity on the part of Member-States. (Hamilton, 2009)

According to the *Transatlantic Declaration on EC-US Relations* (2009) this reporting requirement reflects the overall weakness of the Commission and its dependence on Member-State governments for cooperation in enforcement. It is clearly inadequate as a procedure for direct and close enforcement. It may be noted that the main criticism leveled by observers of EC policy on state aid is that somehow subsidies are approved periodically and repeatedly to the same recipients, departing from the principle of "one-time" aid that should be a feature of all rescue schemes. This suggests that the Commission lack enforcement powers and that the involvement of Member-States undermines the "one-time" principle.

By contrast, the virtue of the American approach has been that Congress and the Executive Branch have been directly and closely involved in management of plans approved by Congress. Congress and the administration have not only been arbitrators between those seeking assistance and their creditors but have taken direct responsibility for negotiations with creditors and trade unions.

4.3 Trade war – Boeing versus Airbus

According to the European Commission (2011) The United States has launched a major economic dispute with Europe, taking the biggest trade complaint ever to the World Trade Organization for litigation. The stakes are enormous, involving the world's No. 1 and No. 2 civilian aircraft makers - Airbus (owned by a European consortium) and Boeing, which is America's largest exporter. If the World Trade Organization finds that either of the European or US governments is improperly subsidizing the manufacturers, it could allow billions of dollars in retaliatory tariffs. That, in turn, could cause major turbulence throughout the aviation industry, including the already wobbly US airlines. On the surface, the dispute appears to be about boosting jobs and exports. But really, it's a magnification of the European-US culture clash over the role of government.

Although they're trying to wean themselves from the welfare-state model, Europe's citizens and businesses still reflect a mentality that expects government assistance. Americans, on the other hand, tend to view government help as an emergency measure - like the Chrysler bailout in 1980, or the airlines after 9/11. Airbus itself was born of the French and German governments in 1970. A 1992 agreement between the US and the European Union set restraints on subsidies to Airbus, but as part of the agreement, it still receives favorable public loans to launch new aircraft. (Office of the U.S. Trade Representative [online], 2011)

The US and Boeing now say Airbus is healthy enough to fly solo. It's profitable, and last year, it overtook Boeing, grabbing over 50 percent of the world market in aircraft sales. While Boeing produced one new aircraft in the past decade, Airbus rolled out five - a feat only possible, Boeing charges, because of the so-called "launch" aid. The US, in taking the case to the WTO, demands an end to subsidies, and is voiding the 1992 agreement. The Europeans counter that Boeing also drinks from the public spigot. Tax breaks and defense contracts indirectly benefit its commercial aviation business, they charge. They're right, but defense contracts (which Airbus's owners also enjoy) are hardly on par with direct financial loans, and the US has the stronger argument as global business moves away from direct subsidies. The WTO can bring needed transparency to what constitutes an unacceptable subsidy. While critics worry the trade arbiter is ill-equipped to handle such a large and complex case, it has the advantage of being able to depoliticize it - and perhaps force the two sides to an agreement to avoid high WTO-sanctioned tariffs. (Office of the U.S. Trade Representative [online], 2011)

5. Problem solution

European countries were amongst the founding members of the modern international system of trade rules. This system, which has grown over sixty years into the network of agreements and obligations overseen by the World Trade Organization, helps to ensure that trade is open, predictable and fair. The WTO provides a forum in which all of its members have an equal say in the making of trade rules and in the negotiation of new WTO trade agreements. The WTO system has helped to shape and maintain a system of global trade rules that not only keeps the global economy open for trade, but reflects and respects the special needs and concerns of developing countries. Maintaining the WTO system, and ensuring that it continues to adapt to a fast-changing world, is a central priority for Europe‘s trade policy.

Admittedly, the Commission may conduct an investigation into the case and may make its approval conditional upon acceptance of certain requirements. But in reality this procedure gives little leeway for negotiation with Member-State governments, who have already reached a complex settlement under the internal political and legal constraints to which they are subject.

The idea of a direct involvement of the Commission in enforcement of restructuring plans, analogous to American practice, thus runs up against constitutional objections arising from subsidiary and the lack of positive legal powers. In practice, it would also require staffing and expertise greater than the Commission now has.

The EU Commission is currently devoting greater attention to state aid. The number of cases examined has increased, the accounts of public and state-controlled companies are scrutinized more closely, and proposals for aid to troubled firms are considered more critically. The cases involving rescuing and restructuring firms are among the most controversial that the Commission has to examine. All such cases tend to stir up public debate and to call into question the way in which the Commission uses its discretionary power.

This procedure cannot simply be copied in the EU. Whatever the media suggests, in all comparable cases the Commission only acts when it receives a plan drafted at the national level that has already been accepted and funded. Indeed, such plans often take no account of Community law.

Another evidence, that the EU-US mutual trade relations is a very difficult issue to deal with, is the EU and US nations' different ways of law interpretation in areas such as intellectual property rights, patent and copyright legislation, state aid area and so on. Supposedly, it is the task of WTO to bear in mind this complicated aspect and to propose particular steps how to avoid being that as a negative and determining issue. One of the proper ways might be to work out a complex set of rules or a "guide" how to harmonize those two different juridical concepts.

6. Conclusion

As a conclusion we can point out that making ironing out the differences in European and American laws and standards a top priority, calling for the creation of a transatlantic single market. Such barriers are not just damaging to EU companies, but have a substantial negative impact on the US economy and consumers as well. To get rid of these negative aspects the good way would be to create the free trade area covering the transatlantic economic environment. As it has been said there are still some obstacles in mutual US-EU trade relations being the problematic trade issues especially on the WTO area.

We have to keep in mind that those particular problematic trade issues usually having the political background are not the drawbacks that could ruin the US-EU long term good economic cooperation. Generally speaking the US-EU trade transatlantic agenda is in good conditions and their trade relations are affected by the negative aspects only by 4% of their mutual trade flows. To create and maintain well working transatlantic cooperation is an advantage for both economies to enhance their competitiveness and leading position in global system of international economics.

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Free Trade Area between the United States and the European Union: Far Past or Possible Future?

Jana Kovářová
VŠB – Technical University of Ostrava
Faculty of Economics, Department of Economics
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
jana.kovarova2@vsb.cz

Abstract
In the 1990s, an idea of creating a free trade area between the European Union and the United States appeared. It was argued that this move would greatly enhance existing EU-US trade, thus creating new growth opportunities for advanced market economies. However, due to a political turmoil associated with two Iraq wars and the NATO intervention in Kosovo, lacking solid economic arguments, as well as skepticism and reservations by WTO, the area was finally not established. Nevertheless, nowadays the idea of the transatlantic cooperation gets back into the spotlight. The aim of this paper is to present four possible scenarios of transatlantic cooperation based on the idea of the free trade area.

Keywords: *Free trade area, transatlantic trade, liberalization*

JEL codes: *F14, F15, O51, O52*

1. Introduction

The idea of creating a free trade area (FTA) between the European Union and the United States to liberalize trade is not new. However, the timing and arguments were not sufficient. Erixon and Brandt (2011) identified four basic reasons why trade liberalization among the world's largest trading partners has not yet been implemented. First the initiative transatlantic FTA always appeared after a dispute in which the US intervened (two Iraq wars and the NATO intervention in Kosovo). Second, there has been a lack of solid economic arguments in the debate over initiatives. A study analyzing the costs and benefits of various free trade initiatives was never completed. Third, critics of transatlantic FTA have argued that such initiative would kill an ongoing round of negotiations, since there has been a round ongoing or in preparation in the past 30 years. And last but not least, there have not been many strong friends of a transatlantic free trade initiative.

Erixon and Brandt (2011) state that now is the time to give a transatlantic free trade initiative serious consideration as the timing could not be better. The argument that the transatlantic initiative may have adverse effects on the multilateral trading system is no longer valid, if it ever was. On the other hand, strong external pressures seem to be the only possible solution that could save the completion of the ongoing Doha Round. The world trading system needs better leadership from the largest economies. During the next decades, it is assumed that the US and the European Union remain world leaders with the political, economic and institutional capacity to lead. The second argument is the fact that the transatlantic initiative could have a significant impact on mutual trade. The value of transatlantic trade and investment is about 4.4 trillion (2009), the EU's and the US share of the world GDP is more than 50 %, and of the world trade more than 30 %. The initiative is supported by the logic of large numbers, saying that the liberalization of the major economies will bring greater economic effects than liberalization between small and medium-sized economies. The aim of this paper is to present four possible scenarios of transatlantic cooperation based on the idea of the free trade area.

2. Theory of the free trade area

Most of the literature dealing with the issue of regional integration begins with a theory of the customs union. Theory of the first degree of regional integration, a free trade area, can be found, for example, in the studies by Shibata (1998), Palmeter (1998), El-Agraa (1999), Mirus and Rylská (2003), Grinols and Silva (2003) who developed a modern theory of a free trade area.

2.1 Definition of the free trade area

Free trade area (FTA) represents the lowest and the least developed degree of economic integration (in practice often limited only to trade in industrial commodities). This form of the economic integration is preferred, especially by countries that are unwilling or unable to engage in higher level of economic integration (for example customs union, common market etc.).

Varadzin (1997) characterizes the FTA as the lowest degree of macro-integration[31], in which barriers to the free movement of goods were removed by the member countries. This includes a removal of both tariff and non-tariff barriers, including quantitative quotas and administrative restrictions (regulations, standards etc). In the free trade area, each country retains its own external trade policy towards non-member countries.

Shibata (1998) states as examples of the free trade area a definition from Article 4 of the Stockholm Treaty, which established the European Free Trade Association (EFTA), and a definition from Article 3 of the Montevideo Treaty, which established the Latin American Free Trade Association (LAFTA). Article 4 states that the goods is considered eligible for the tariff treatment of a free trade area if it was sent to the importing member states from another member states and if the following conditions are satisfied in the area of origin: a) the goods was wholly produced in the FTA, b) it was designated in accordance with the terms and conditions set out in Article 9 of the General Agreement on Tariffs and Trade (GATT). Article 2 of the Montevideo Treaty states that during the defined period, the parties have to eliminate customs duties, fees and other restrictions applied to imports of goods originating in the territory of the contracting parties.

[31] Varadzin (1997) distinguishes between micro-integration and macro-integration. Micro-integration means that the integration processes are a matter of particular subjects. Macro-integration then expresses a process that relates to the economy as a whole.

Cihelková (2008) specifies the FTA as a first degree of the institutionalized regional integration, in the sense of compulsory registration with the World Trade Organization (WTO) under the appropriate exemptions from multilateral rules. Member states remove all substantial (visible) barriers to trade in goods, but retain all powers in the field of the trade policy toward third countries. The visible barriers include tariffs and quantitative trade restrictions (e.g. quotas). Other trade restrictions (e.g. technical and health standards) at this level of integration are usually not completely eliminated, and their removal becomes a necessary condition for the functioning of the higher degrees of the economic integration (e.g. common market). Member states of the FTA are obliged to prove origin of goods, which means that they lay down the rules of origin under which it must be clear on which goods can be free movement applied. Institutional framework of the FTA is quite simple. There usually exists a secretariat, which monitors the implementation of the agreement.

WTO defines the free trade area as a group of two or more customs territories in which customs duties and other restrictive measures on all trade between the territories of those products which have their origin in these areas are removed. Such regional agreements have to facilitate mutual trade within FTA and not create barriers to trade between these countries and the rest of the world (third countries). Therefore, they should not to be a tool for discrimination against third countries.

As the basic characteristic of the FTA can be considered:

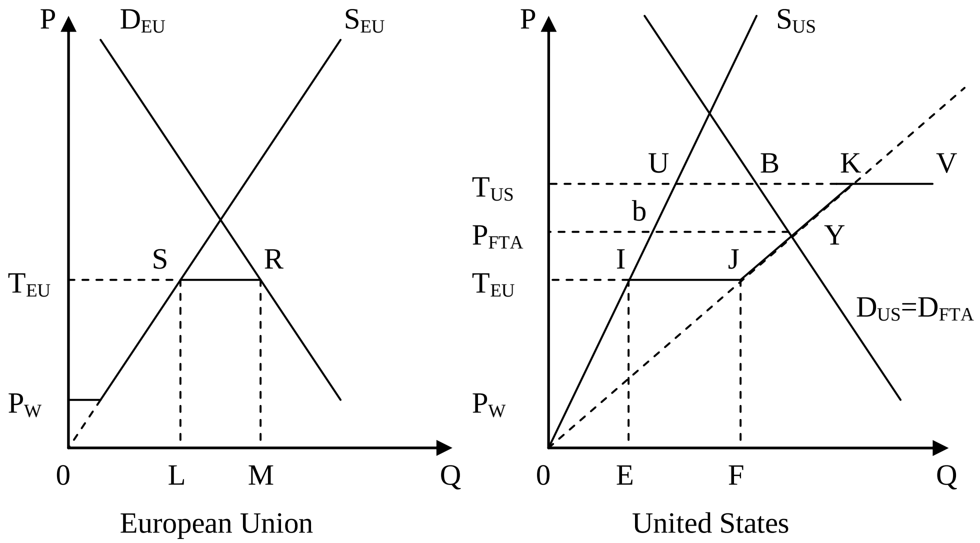
- removal of tariff and non-tariff trade barriers, especially quantitative restrictions that impede the free movement of goods between two or more countries concerned,
- maintaining the national customs territory of the members,
- maintaining autonomous tariff and trade policies toward third (non-members) countries,
- necessity to prove the origin of goods, whose movement of the market is fully liberalized.[32]

2.2 Trade creation and trade diversion effect

Using the following example inspired by Shibata (1998), two effects connected with creating a free trade area will be explained. Namely, trade diversion and trade creation will be discussed. As the initial assumptions, consider two open economies (the European Union – EU and the United States – US) producing completely identical product. The starting situation is shown in Figure 1.

[32] Zlý, 2006.

Figure 1: Trade creation and trade diversion effect in the free trade area



Source: Own elaboration by Shibata (1998)

These model economies have different amounts of duties. The EU has lower duties T_{EU} and the US has higher duties $T_{US.}$ The price of the EU's products (assuming the adoption of zero transaction costs and perfect competition) equals the sum of the world price P_W and duty T_{EU} ($P_W + T_{EU}$). Analogously, the price of the US's products equals the sum of the world price P_W and duty T_{US} ($P_W + T_{US}$). Before creating the FTA the price of the EU's products is lower than the US. After creating the FTA three possibilities to state the price P_{FTA} exist. It will be on the level of the EU's or US's price or between them. Now let´s assume that the P_{FTA} is between the EU's or US's price stated. Total supply of the FTA (T_{EU}IJKV) consists of the EU and US supply and it is not perfectly elastic. Total demand of the FTA (D_{US}=D_{FTA}) consists of the US demand and it is not perfectly elastic too.

After creating the FTA, the quantity of goods which was initially imported from third countries, is completely replaced by imports from the EU (line segment bY). The gross effect of trade creation is the line segment T_{EU}S respectively IJ (in the figure of the United States).The gross effect of trade diversion is the line segment UB. The net effect depends on whether UB (trade diversion) is longer than IJ (trade creation).

3. Scenarios of possible cooperation

Erixon and Brandt (2011) defined four possible scenarios. The first scenario is a business-as-usual alternative that means leaving the bilateral transatlantic relations in their current state, with the Transatlantic Economic Council (TEC) as a main forum for cooperation. The second and third alternatives consist of establishing a transatlantic free trade agreement covering trade in goods and/or in services. The fourth alternative implies transatlantic cooperation with the explicit ambition of creating a sort of snowball effect of other countries joining.

3.1 Business-as-usual

Relationships between the US and the EU are coordinated by the Transatlantic Economic Council (TEC), which was established by a joint initiative from George W. Bush and Angela Merkel at the US-EU summit in Washington in April 2007. The main aims of this initiative have been to enhance transatlantic economic integration and growth, to reduce barriers to transatlantic trade and investment and to build on existing investment flows to boost growth and create jobs.

Erixon and Brandt (2011) state that, there are two basic arguments why integration between these units has not yet been successful. The first are discrepancies in the regulatory frameworks. For example, in the field of genetically modified organisms (GMO), the EU advocates the precautionary principle and the US promotes a different perspective on scientific risk assessment. Another recent example which appears to be unbridgeable is the difference in the patent system. The EU uses the first to file system and the US uses the first to invent principle. Differences also exist in the approaches to patentability of business methods and software. As the second argument are considered EU-US trade disputes. Nowadays the trade disputes between the EU and the US create less than 2 % of the value of the transatlantic trade. Despite the small share of this trade disputes on the total transatlantic trade play a big role thanks to their political importance. The resolution of these disputes would not be subject to the activities of the TEC. The main forum for resolution the EU-US trade disputes remains the World Trade Organization (WTO).

As the main barriers to transatlantic trade the Non Tariff Barriers to trade (NTBs) can be identified. Berden et al (2009) wrote a study in which two scenarios are presented. The first is the ambitious scenario according to which by 2012 around 50 % of all NTBs and regulatory divergence are addressed. The second is the limited scenario that assumes a more modest 25 % of all NTBs to be addressed by 2018. In the table 1 the results of both scenarios are presented.

Table 1: Macroeconomic changes following NTBs reduction (% change)

	Ambitious Scenario Short run	**Ambitious Scenario** Long run	**Limited Scenario** Short run	**Limited Scenario** Long run
Real income				
US	0.13	0.28	0.05	0.13
EU	0.27	0.72	0.11	0.32
Real household income				
US	0.16	0.31	0.07	0.14
EU	0.32	0.79	0.14	0.35
Value of exports				
US	6.12	6.06	2.72	2.68
EU	1.69	2.07	0.74	0.91
Value of imports				
US	3.97	3.93	1.76	1.74
EU	1.63	2.00	0.72	0.88
Terms of trade				
US	-0.15	-0.23	-0.06	-0.10
EU	0.11	0.07	0.05	0.03

Source: self-elaboration by Berden et al (2009)

The best results are for the ambitious scenario in the long run. This scenario could push EU gross domestic product (GDP) to be 0.72 % higher in 2018 compared to the baseline scenario (i.e. do nothing), which represents an annual potential gain of 122 billion euro. For the US GDP the same operation yields a 0.28 % gain per year in 2018 (compared to the baseline), which represents an annual potential gain of 41 billion euro. Berden et al (2009) state, that the difference in the estimated impact between the EU and the US stems from the different volumes of affected trade and investment flows, different comparative advantages, and a mixed picture on differences in the height of measures for specific sectors in the EU and US.

3.2 TAZA: A Transatlantic Zero-tariff Agreement

Erixon and Bauer (2010) wrote a study which estimated the gains from transatlantic free trade in goods. In this study the dynamic effects of a full elimination of tariffs on goods traded between the EU-25 and the US are calculated. Specification of scenarios using in this study are presented in Table 2.

Table 2: Specification of scenarios

Scenario 1 (static effects)	Full elimination of tariff on goods
Scenario 2 (dynamic effects)	Full elimination of tariff on goods Reduction of trade facilitation costs by an amount equivalent to 3 % of the value of trade in non-commodity goods sectors Increase in labor productivity by 2 % in goods sectors
Scenario 3 (dynamic effects)	Full elimination of tariff on goods Reduction of trade facilitation costs by an amount equivalent to 3 % of the value of trade in non-commodity goods sectors Increase in labor productivity by 3.5 % in sectors with high levels of intra-industry trade, increase in labor productivity by 2 % in all other goods sectors

Source: self-elaboration by Erixon and Bauer (2010)

Effects on GDP for above mentioned scenarios are presented in Table 3. The static gains based on the elimination of tariffs on goods only are not very significant whereas the dynamic gains are substantial. Depending on the assumptions of the different scenarios, the EU-25 will increase its GDP by an estimated 46bn USD to 69bn USD in value that is GDP in 2015 would be 0.32-0.47 % higher than it would be without elimination of tariffs. Similarly, the US will benefit from estimated GDP gains by 135bn USD to 182bn USD, or 0.99-1.33 % in the core scenarios.

Table 3: Estimated GDP gains

	Scenario 1		**Scenario 2**		**Scenario 3**	
	Change GDP					
	in %	in million USD	in %	in million USD	in %	in million USD
EU-25	0.01	1 644	0.32	46 450	0.47	69 287
USA	0.15	20 470	0.99	135 236	1.33	181 893

Source: self-elaboration by Erixon and Bauer (2010)

The estimated welfare gains – measured as national income effects – are more evenly distributed between the two economies. The static effect of tariff elimination is 3bn USD for the EU-25 and 4.5bn USD for the United States. The dynamic welfare gains are estimated to be 58-86bn USD for the EU-25 and 59-82bn USD for the US.

The estimated change in EU-25 exports to the US is 7 % (or 28bn USD) in a static scenario and around 18 % (or 69bn USD) in the dynamic scenario. The US is estimated to increase its exports to the UE-25 by 8 % (or 23bn USD) in the static scenario and 17 % (or 53bn USD) in the dynamic scenario.[33]

It has been shown above that the potential dynamic gains from Transatlantic Zero-tariff Agreement are likely to be significant. Trade diversion effects cannot be avoided, but they are considerably smaller than the trade creation effects.

3.3 A bilateral agreement for trade in services

The third scenario of cooperation between the EU and the US stated by Erixon and Brandt (2011) is creating a bilateral agreement for trade in services. The US service sector is generally more open than the EU's, and some of the mentioned sectors, like transport and storage, are more open that other service sectors in the US. This difference in openness is partly a reflection of the fragmented services market in Europe – which is not subject to the same Single Market disciplines as the goods market.

A bilateral transatlantic agreement in services makes sense because the EU and the US represent a big portion of trade and production of tradable services in the world. Other countries are likely to see this as a justified diversion from the WTO. The free trade initiative on services is likely to be considered as more legitimate than an initiative for goods, since the trade in goods is less dominated by the EU and US.

3.4 New generation global trade policy

There are several opportunities[34]. For example, a bilateral agreement, like the transatlantic agreement for services discussed above, could be extended to others. There could also be "open regionalism" style initiatives.

Bilateral transatlantic initiative

This idea is based on creating a bilateral agreement open to other countries to join. A sector EU-US initiative can be expanded into an agreement with a larger number of signatories. The main advantage of this initiative is that it can initially be restricted to a smaller group of signatories. The benefits are confined to participating countries, implying discrimination against non signatories in practice.

Plurilaterals

This type of agreements tends to take more time to negotiate, but they come with the advantage of being built into the WTO. Nowadays, the most important plurilateral treaty currently in force is the Agreement on Government Procurement (GPA) from 1996. Compared with the Agreement on Trade in Civil Aircraft from

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[33] Erixon and Brandt, 2011.
[34] Erixon and Brandt, 2011.

1980, the GPA is more comprehensive in the sense that it touches upon domestic regulations and non-tariff barriers.

Critical mass agreements

The successful example of the critical mass agreements is the Information Technology Agreement (ITA) from 1996. The advantage of this cooperation is that these agreements can be relatively specific in their coverage, and there is generally no need for cross-issue linkage.

Open regionalism

Ambitious idea of trade liberalization between the EU and the US is an agreement in the form of open regionalism. This would mean a bilateral preferential trade agreement which is open to any country fulfilling the criteria. The open regionalism form of trade liberalization permits extensive economic integration without intruding too much upon the sovereignty of the signatories, who will still be able to maintain their own external tariffs.

4. Conclusion

The European Union and the Unites States of America are two giants in the world economy. Transatlantic trade and investment flows are significant, and the US-EU relationship clearly represents the largest bilateral economic relationship in the world. The total value of the EU-US merchandise trade is about 643bn USD and the total commercial exchanges are worth 4.4 trillion USD each year. More than 14 million workers on both sides of the Atlantic are dependent on the transatlantic trade. Until now, there has not existed any agreement between them. Both the economies cooperate by the rules of the MFN clause.

The most realistic option of trade integration between the EU and the US is creating the first degree of economic integration, a free trade area. The United States has valid agreements on free trade with 18 countries. Two of these agreements are closed at the multilateral level. The first one is the North American Free Trade Agreement (NAFTA) involving the United States, Canada and Mexico. The second one is the United States – Dominican Republic – Central America Free Trade Agreement (US-DR-CAFTA) consisting of the United States, Dominican Republic, Guatemala, Honduras, Costa Rica, Nicaragua and Salvador. In addition, the US has bilateral agreements on free trade with Australia (since 2005), Bahrain (since 2006), Chile (since 2004), Israel (since 1985), Jordan (since 2001), Republic of Korea (since 2012), Morocco (since 2009), Oman (since 2009), Peru (2006), and Singapore (since 2004).

This paper defines four possible scenarios of trade liberalization between the EU and the US based on the free trade area. The first scenario is a business-as-usual alternative that means leaving the bilateral transatlantic relations in their current state, with the Transatlantic Economic Council (TEC) as a main forum for cooperation. The second and third alternatives consist of establishing a transatlantic free trade agreement covering trade in goods and/or in services. The fourth alternative implies transatlantic cooperation with the explicit ambition of creating a sort of snowball effect of other countries joining.

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International Monetary Fund in the Context of International Economic Integration

Zuzana Kudelová
VŠB – Technical University of Ostrava
Faculty of Economics, Department of Management
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
zuzana.kudelova@centrum.cz

Abstract
Today's Role of the International Monetary Fund has changed significantly since its foundation also due to current world economic development and this article analyses current position of the Fund in greater international economic integration. Further this paper describes current ongoing governance reform related to increasing strength of developing economies in the Fund's management. In the conclusion paper focuses on future position of the Fund and its credibility as a consequence of the current economic situation.

Keywords: *International Monetary Fund, governance reform, quota reform, credibility*

JEL codes: *F02, F15, F33*

1. Introduction

International economic integration is driven by political stability, international institutions and technological innovations. In any era, great powers seek to provide international stability in order to secure their own interests and, by extension, encourage international trade. After World War II, mainly the U.S. and its allies explicitly sought to encourage global economic integration through institutions like the International Monetary Fund. Role of the Fund significantly changed during nearly 70 years of its existence but there is no doubt after the financial crisis of 2009 and the current one in Europe that it still plays the key role in global financial world even though the credibility and effectiveness of its actions is questioned more than ever.

Everybody knows that IMF is currently focused on crisis prevention, crisis response and strengthening of the international monetary system. But one of the crucial objectives for the Fund itself to raise its credibility and legitimacy is ongoing governance reform. The Fund had initially 44 member countries and 12 Executive Directors. Today the Fund has 188 member countries and 24 Executive Directors. While roles have evolved over the time, in many ways the formal structure and many practices remain largely untouched; and reforms have not kept pace with changes in the membership and in the global economic system in which it operates.

This paper firstly briefly describes changing role of the IMF during the time of its existence, latest reform steps and analyzes how these last reform actions in the area of the corporate governance corresponds to the changing economic power of member countries and what should be done in order to restore Funds credibility.

1.1 History shaping the IMF as the key player in the international economic integration

The foundation of the International Monetary Fund was a result of endeavour to create a new stable international economic system. According to *The international Monetary Fund: Its Present Role in Historic Perspective* (M. Bordo, H. James, 1999) the IMF was established in the aftermath of the disasters of the Great Depression to overcome perceived market failures of the 1930's, including destabilizing short-term capital flows, then the breakdown of capital markets, the consequent inability to finance payments deficits in a time of depression, the widespread imposition of exchange controls, competitive devaluations, and turn to trade protection. New institution became a main platform where monetary and financial problems should be solved through international cooperation and not to search for individual based solutions that lead in the past to autarchy and protectionism. A well known British Economist, John Maynard Keynes and the American expert Harry D. White prepared their separate plans for International Clearing Union and 'United and Associated Nations Stabilization Fund' respectively. They could be considered as "fathers" of the IMF.

Officially was IMF founded in December 1945 when 29 countries signed The Articles of Agreement of the Fund. Established Bretton Woods system was very innovative. International monetary cooperation was the first time in a history institutionalized. The principle of national sovereignty was respected but all the members were collectively responsible. Main objectives of the IMF which remained unchanged see below in the Box 1.

Box 1: Main aims of the IMF

- to provide the global public good of financial stability
- provide a forum for cooperation on international monetary problems
- facilitate the growth of international trade, thus promoting job creation, economic growth, and poverty reduction
- promote exchange rate stability and an open system of international payments
- lend countries foreign exchange when needed, on a temporary basis and under adequate safeguards, to help them address balance of payments problems

Source: IMF [online], 2012

During the history the world economy went through significant changes and turbulences that significantly influenced IMF functioning. After the collapse of the Bretton Woods system after 1971 was expected that IMF will cease but consequently new challenges appeared on the horizon. Debt crisis in the 1980's was a great impulse in its activity and IMF due to its involvement became a respected international monetary organization (Boughton, 2006). Also 1990's are significantly written in the Fund's history. The end of the Cold War and dissolution of the Soviet Bloc created from the Fund an organization with universal membership, which should tackle problems so far unknown for economic theory and practice.

New generation of crisis questioned if the Fund is still relevant to solve global problems. Further development even strengthened these challenges. New loans minimized and paradoxically created a problem with providing its financing. Many countries doubted if the surveillance has an added value for them. Credibility of the Fund started to be questioned since the developing countries felt an inadequate representation in the management and governance of the institution.

International community now does not doubt that global problems should be solved by global approach based on international cooperation. In this context the IMF has the best assumptions. Stakeholders welcomed when after the 60's anniversary of the Fund was in 2005 introduced the Fund's Medium Term Strategy that contained self-reflection and as in the past paths how to fulfil its mandate the best had been explored.

Even accepting that most of the changes in the Fund have occurred for good reasons and could not have been avoided in any case, the argument for adhering to a consistent mandate and mission is not diminished. As much as the world has changed, the raison d'être for the IMF—compensating for the limited global reach of the invisible hand, the goal that first led Keynes and White to create institutions to promote multilateral cooperation—remains as vital as ever (Boughton, 2006).

2. The IMF of the 21st century

2.1. Necessity for reform steps

IMF always believed that globalization has a big potential that can contribute to growth and that is why the IMF realized in reaction to international economic integration many initiatives and activities. Not always were its reactions considered adequate and often came in for criticism. After the 60th anniversary of the Fund's existence internal discussions if the organization is able to confront challenges of the 21st century had started.

Box 2: Three main factors which lead to self-reflection of the IMF

- events of the last 10 years had taken the IMF into many new activities beyond the original mandate. New initiatives were started in data transparency, standards and caudexes in financial sector. Reaction to terrorist attacks in 9/11 moved IMF more towards fight against terrorist financing and money laundering. Also the involvement of the organization in low income countries increased.
- rise of new activities without elimination of the old ones caused problems with effective resource allocation and ability to tackle new challenges
- there was a crisis of trust and credibility if the institution is able to handle global appeals that are ahead of us.

Source: MMF na rozcestí (Prochazka, Sedlacek, 2006)

In response to the new challenges was in September 2005 published already mentioned Fund's Medium-Term Strategy of the Fund.

Box 3: The Medium-Term Strategy's proposed new directions and priorities include the following seven main areas:

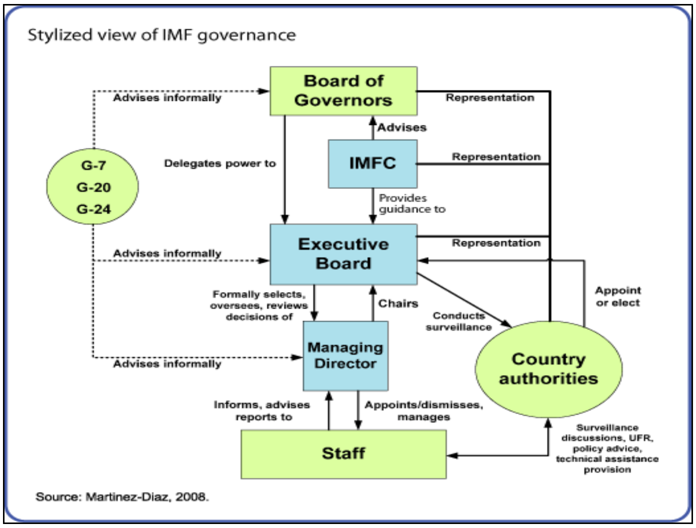
1. engagement in low-income countries
2. governance of the Fund
3. multilateral surveillance of global trade imbalances
4. role in emerging market/middle-income countries, i.e., crisis prevention
5. streamlining Fund internal procedures and documentation
6. capacity building
7. the medium-term budget

Source: Fund's Medium-Term Strategy (R. De Rato, 2005)

One of the main focuses of the Strategy was also the corporate governance of the Fund. If the IMF should fulfill its mission in the global world then it must have good corporate governance that complies conditions of effectiveness and legitimacy, must have sufficient financial resources for its activities and vision.

Public perceives IMF as a monolith but the single parts of its organizational structure are crucial for its functioning and performance. The key aspects of the corporate governance in the Fund are how members influence each other and their common presence in main bodies of the organizational structure – Board of Governors, Executive Board, International Monetary and Financial Committee (IMFC), Managing Director and staff.

Scheme 1: View of IMF Governance



Source: Studies on IMF governance (Martinez-Diaz, 2008)

2.2. Crucial governance Reform

In order to be effective and legitimate, the Fund must represent the interests of all of its 188 member countries (D. Strauss-Kahn, 2010). Rapid changes in the global economy and increasing economic weight of emerging market countries lead to necessity to reform the IMF's governance. The aim is that countries representation together with votes in management of the Fund will better correspond to the division of powers in the global economy, otherwise the legitimacy is questioned.

Reform of the IMF's governance was started in 2006, when a process to realign members' quotas and voting power received the backing of the membership. The 2008 quota and voice reform—which provides for ad hoc quota increases for a group of dynamic emerging market countries, as well as measures to enhance the voice of low-income countries—became effective on March 3, 2011 (IMF online).

In October 2009, encouraged G-20 leaders IMF with the call for even more ambitious reform and also increase of the IMF resources in the light of ongoing financial crisis while protecting the voting share of the poorest member countries. After many discussions in December 15, 2010, the IMF Board of Governors approved for the moment last the 14th General Review of Quotas which lead to double increase of members' quotas and should result in a further shift of more than 6 percentage points in quota share to dynamic emerging and developing countries. IMF Managing Director D. Strauss-Kahn claimed this agreement as "revolutionary and historic".

Further, there was also agreement to preserve the gains in the voting power of the poorest member countries achieved in the 2008 reforms. After the implementation, India and Brazil will join China and Russia as part of the top 10 shareholders of the IMF, while now they were in the bottom part of the list.

Executive Board is the managing body of the IMF. Part of these reforms is restructuring of the 24-member Board in order to increase the representation of dynamic emerging market and developing countries in the day-to-day decision-making at the IMF. There will be two fewer Board members from advanced European countries, and all Executive Directors will be elected rather than appointed, as some are now. The size of the Board will remain at 24, and its composition will be reviewed every 8 years. This composition should better reflect division of economic power in the current global economic system so also the platform of IMF should comply with the latest developments.

The Board of Governors has called on member countries to ratify these reforms by the time of the 2012 Annual Meetings so the reform is still in process and ongoing.

3. What is the status of the governance reform and does the quota reform reflect countries positions within global economy?

3.1. Status of the governance reform

After 2 years of its approval on March 12, 2012, the Executive Board of the IMF reviewed progress toward implementation of the 2010 Governance and Quota Reform Package, following up on a previous progress review completed on December, 2011. The Directors were informed that the necessary legal thresholds required for effectiveness of the reforms had not yet been reached.

As of March 12, 2012, only 89 members having 53.14 percent of Fund quotas had approved the quota increases under the 14th General Review of Quotas. As of the same date, 66 members having 45.36 percent of the total voting power had accepted the proposed amendment to reform the Fund's 24-member Executive Board (IMF, Proposed amendment on the Reform of the IMF Executive Board and Fourteenth General Quota Review, March 2012) .

In order for the proposed amendment to reform the Executive Board to enter into force, acceptance by three-fifths of the Fund's 187 members having 85 percent of the Fund's total voting power is required. For the quota increases under the 14th General Review of Quotas to become effective, the entry into force of the proposed amendment to reform the Executive Board, as well as the consent to the quota increase by members having not less than 70 percent of total quotas as of November 5, 2010, is required.

It is obvious that the target to implement the reform to the 2012 IMF Annual meeting will not be reached. The reform is politically very sensitive. Since the World War II main voice in the Fund had the USA and advanced European economies together with Japan and situation still remains the same (see Table 1).

3.2. Does the quota reform reflect countries positions within global economy?

Table 1 clearly demonstrates current division of voting power according to quotas of countries and constituencies in the IMF each one represented by the Executive Director.

Table 1: Executive Directors and Voting Power in the IMF

Executive Directors	Number of countries in constituency	% of all Fund's votes
Appointed		
USA		16.8
Japan		6.25
Germany		5.83
France		4.30
UK		4.30
Elected		
Belgium	10	4.88
Netherland	12	4.53
Mexico	8	4.66
Italy	7	4.26
Canada	12	3.61
Denmark	8	3.40
Australia	14	3.64
Egypt	13	3.13
Saudi Arabia		2.81
Thailand	12	3.89
Lesotho	19	3.23
China		3.82
Switzerland	8	2.78
Russia		2.40
Iran	7	2.27
Brazil	9	2.79
India	4	2.81
Argentina	6	1.84
Togo	22	1.55

Source: IMF, Annual Report (2011)

The current quota formula is a weighted average (40%-60%) of gross domestic product (GDP) based on market exchange rates (MER) and GDP based on purchasing power parity (PPP) (weight of 50 percent), openness (30 percent), economic variability (15 percent), and international reserves (5 percent). The formula also includes a "compression factor" that reduces the dispersion in calculated quota shares across members.

$$\mathbf{CQS = (0.5*Y + 0.3*O + 0.15*V + 0.05*R)^{k}}$$ [35]

The IMF quota reform of shifting 6 % votes was called revolutionary and better reflecting economic strength of single countries in the world economy. The changes according to simulations will make China the third largest shareholder and will promote India, Russia and Brazil into the top ten. However, more than half of the 6 per cent shift will come from other developing countries, which are losing voting share as a result of the reforms. The voting share of "advanced economies" will drop from 57.9 per cent to 55.3 per cent, a loss of only 2.6 per cent.

The basic hypothesis is that last quota reform should better reflect the global trends. But even the proposed 6 per cent shift to underrepresented countries will not really comply with countries shares of global economy (see Figure 1).

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35 $)^{k}$

CQS = Calculated Quota Share; Y = GDP: GDP converted at market rates and PPP exchange rates averaged over the immediate three year period for which data are available, with weights of 0.60 and 0.40, respectively;

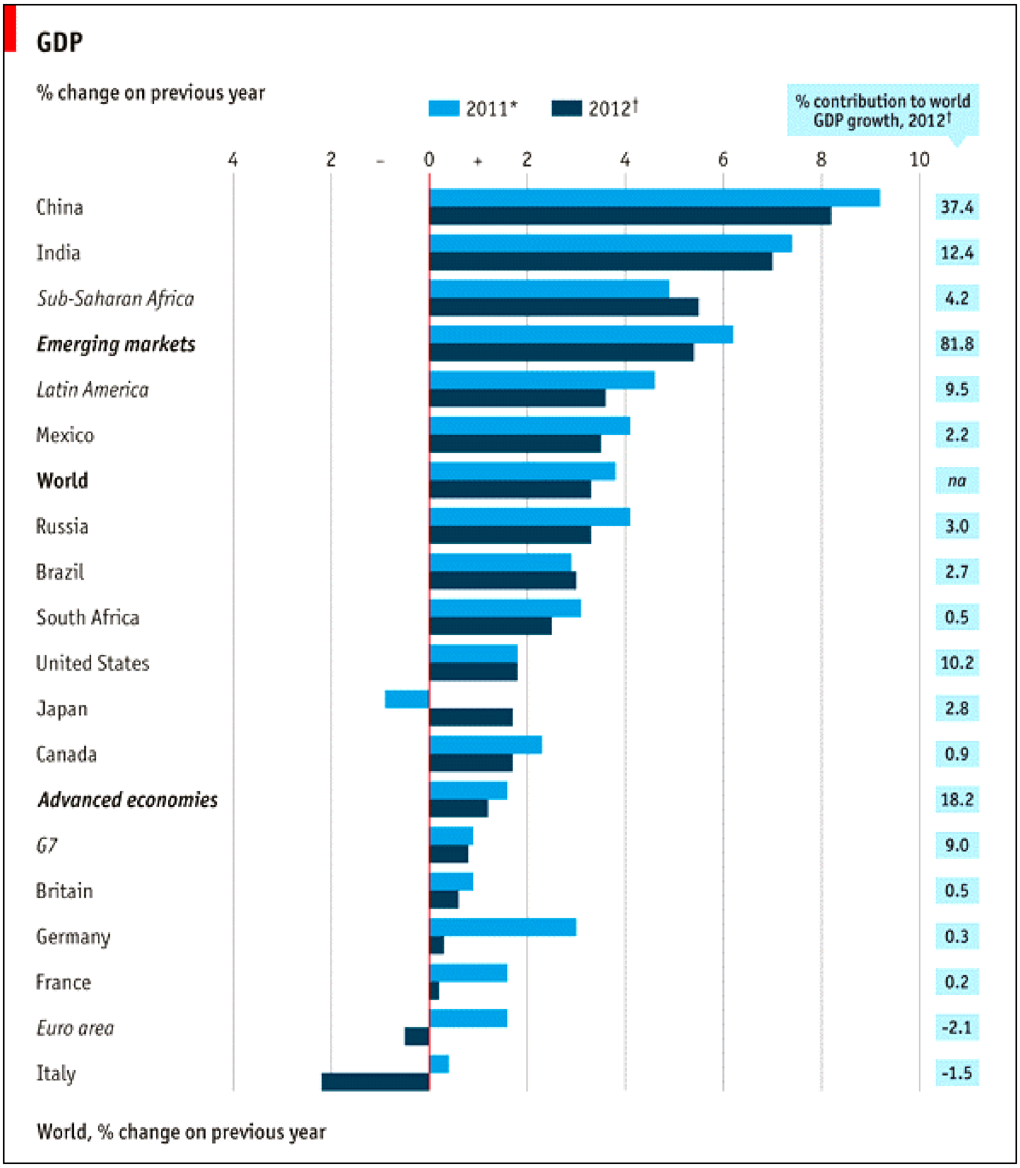
O = Openness: The annual average of the sum of current payments and current receipts (goods, services, income, and transfers) for the latest five year period;

V = Variability of current receipts and net capital flows (measured as a standard deviation from the centered three-year trend over the recent thirteen year period);

R = twelve month average over a year of official reserves (foreign exchange, SDR holdings, reserve position in the IMF and monetary gold).

k = a compression factor of 0.95;

Figure 1: Share of the world GDP



Source: IMF, World Economic Outlook Update (January, 2012)

The degree of autonomy a country enjoys in the international economy depends on its economic power. Economic power is in turn directly and strongly related to economic size. The economically appropriate way to measure the real size of an economy is in purchasing power parity. The conceptually appropriate way to compare any quantity across countries whether absolute values or ratios of two quantities are to first determine their purchasing power parity (Heston, 2004). Thus the quota formula must give a predominant role to relative economic size or a countries share in aggregate world GDP in determining quota shares of countries. The currently used formula thus urgently needs a review.

As we can see clearly from the data comparison even though China will become after the 2010 reform implementation thirds largest shareholder of the Fund it is obvious that in the world economy it is number one. Also even though India, Russia and Brazil will get to the top ten it is far to economic reality.

USA will remain the main shareholder even if their contribution to the world GDP fell significantly since 2009 crisis. As one of the “fathers” of the IMF, US always participate on strategies and new ideas for the future of the institution. They also consider the Fund as a tool to promote their foreign policy interests and all major changes has to have their support. The same it was with the revision of quotas but USA are still one of the countries that did not approve the reform.

The reform seems to be “painful” for Europe since European countries will have to give up 2 seats in the Board of Directors. Discussions are still ongoing on the restructuring of European constituencies because obviously two “weakest” ones will be abolished.

In 2012 is projected that the emerging markets will cover 81 per cent of the world’s GDP but in the Fund just 55 per cent of votes will belong to them. There is obvious imbalance in between the reality and IMF. Also the revision of current quota system is therefore more than necessary to better reflect countries positions in the world economy.

4. Conclusion

The quick implementation of the governance reform from 2010 would certainly help to reduce the problems of unequal representation but it is definitely not sufficient. The implications of IMF Quota Reform are clear. There is a large gap between economic reality and IMF quotas. Dissatisfaction among global public opinion can only be reduced or eliminated if Quota shares are changed to reflect the current and fast changing economic reality. This requires a much greater role for the relative size of economies, an element that is not adequately captured by the existing quota formula. Unless fully taken into account, dissatisfaction will persist after 2013, the year in which the next quota reform is to be completed. The gap is likely to widen every year unless the formula is modified appropriately.

Fair weight and voice are crucial for the legitimacy and credibility of every institution. The current situation in the IMF puts this legitimacy at risk in many regions, especially in Africa where the Fund is heavily engaged and Asia which rose significantly in the world's economy ranking. The Fund's importance and demand for its actions rises with the global economic developments which are not very bright currently. But Fund cannot solve global current account imbalances without solving imbalance itself – governance and ownership. Neither imbalance is sustainable.

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Real Convergence in Central European EU Member States

Lumír Kulhánek
College of Social and Administrative Affairs Havířov
Department of Economics and European Integration
Vítězslava Nezvala 801/1, Havířov – Město, Czech Republic
kulhanek@vsss.cz

Abstract
Central and Eastern European EU Member States have made considerable progress in the economic transition and integration into the European Union. Nevertheless, the challenges of real convergence will remain relevant for these countries in the medium and long term. This paper focuses on the process of the real economic convergence among the five Central European EU Countries (CEC-5): the Czech Republic, Hungary, Poland, the Slovak Republic, and Slovenia. We have analysed both β and σ convergence in the period 1995-2011. The Central European EU countries are well positioned to catch up with the EU-15 average, however, the experience of the EU-15 countries shows that convergence cannot be taken for granted.

Keywords: *Central European EU Countries, European integration, real convergence, β-convergence, σ-convergence*

JEL codes: *E31, F43, O11, O52*

1. Introduction

The European Union consists of 27 member countries, whose economies are very dissimilar both in terms of their size and in terms of their performance. The varying size of individual economies such as these is illustrated by these facts: In the five largest member states being involved in 63% of the total population of the EU, 71% of the European Union's GDP was created in 2011, correspondingly, more than 68% of the European Union's GDP adjusted for purchasing power. In contrast, in the smallest seven member states, in which 2.11% of EU citizens dwell, only 1.31% of the European Union's GDP was generated, or 1.65% of European Union's GDP adjusted for purchasing power. Moreover, the different performance of economies can be assessed by comparison of the most frequently used economic indicators, such as GDP per capita levels converted into purchasing power standard (PPS). In terms of the economic performance expressed by this indicator, EU countries still show significant differences. GDP per capita is in the most developed EU economy more than 6 times higher than in the economy with the lowest value of this indicator. But generally, the poorer new EU member countries grew faster than the richer, highly developed EU-15 economies. Not only for these reasons the convergence of the economies of EU member states is constantly at the forefront of intense interest by representatives of economic theories and economic policy makers.

In this paper we will first delineate two concepts of real economic convergence as well as the development of GDP per capita in EU Member States in the observed period 1995-2011. In the third part sigma (σ) and beta (β) convergences of per capita GDP of EU countries will be subject to an analysis. Particular attention will be paid to our empirical findings about convergence among the CEC-5. If necessary, the analysis results will be compared for the entire period 1995-2011with the results for two sub-periods 1995-2003 and 2004-2011.

2. Economic convergence and GDP per capita in the European Union

Economic convergence can be defined in two concepts: nominal convergence and real convergence. Although the two concepts had received considerable attention in Czech literature in the past, most publications were (and still are) focused on nominal convergence. For instance, the Maastricht criteria are unilaterally directed at it. But Dědek (2001) drew his attention to the need for interaction between real and nominal convergence as early as 2001. Nominal convergence, however, will not be subject to an analysis in this paper. We will attach our attention to real convergence, although in practice it is necessary to monitor the interdependence of real and nominal convergence.

In the materials of the European Commission with regard to real convergence, as noted Žďárek (2006), there is a predominant emphasis on cohesion in individual countries or regions in the European Union, Begg (2006), however, emphasizes the synchronization of economic cycles to the reference territory. However, it is very often the case that real convergence is defined as the process of approaching the level of GDP per capita and comparative price level of the given country to levels that correspond to the long-term steady state. Being aware of some limited power of expression, the indicator of GDP per capita in purchasing power standard (PPS) will be applied in this paper. Thence for the conversion of GDP per capita from local currency into a common unit, the conversion with exchange rates, which does not take into account the purchasing power of different national currency units, is not used. For international comparisons the artificial created currency unit PPS is used, which reflects purchasing power parity.

2.1 Sigma (σ) and beta (β) convergences

Convergence of GDP per capita levels in EU member states in this paper will be assessed according to two concepts of convergence: sigma (σ) convergence and beta (β) convergence. Rey and Montouri (1998) note that beta convergence is a more popular concept among macroeconomists, while sigma convergence is used more in the regional sciences. The convergence terminology was developed in the context of neoclassical theories of economic growth (Solow, 1956) and popularized by Barro (1989), Mankiw et. al. (1992) and Barro and Sala-I-Martin (2003).

Sigma convergence assumes that all countries converge to the same level of economic performance. Sigma convergence thus occurs when the dispersion of GDP per capita diminishes over time. It is therefore defined as a reduction of variance (or the coefficient of variation) of the logarithm of real GDP per capita among countries over time. Once we have measured by means of standard deviations of the natural logarithms of indices used in Figures 2 and 3, then the EU15 average GDP per capita is determined as the 100. Coefficient of variation is given by:

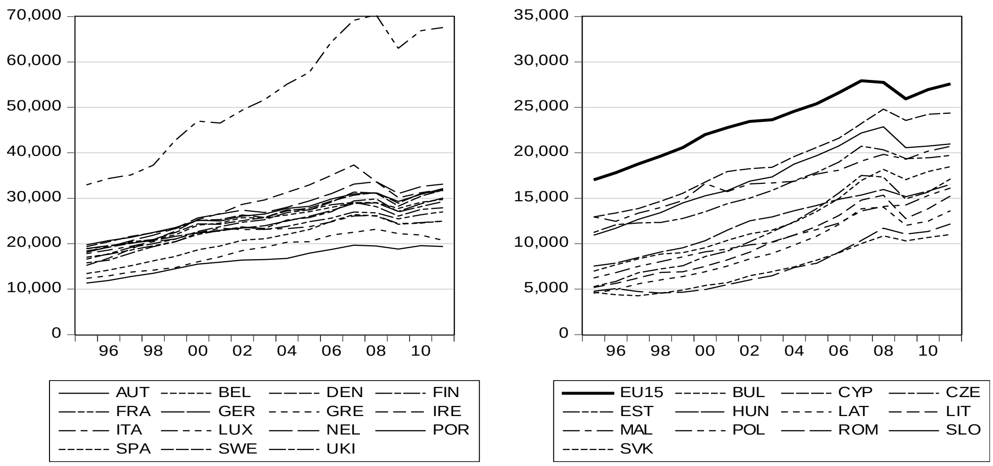
$$CV = (\text{standard deviation}) / (\text{mean value of the set}) \quad (1)$$

Beta convergence is based on the idea that the initially poorer (less developed) countries have a higher growth rate than developed countries, since there is a gradual convergence between countries and differences in their maturity are shrinking. In this concept, the GDP growth is negatively dependent on the initial economic level. Assuming the usual definition by means of relative distances sigma and beta convergence are equivalent, which means that in the circumstances of a faster economic growth in countries with lower initial GDP per capita levels, the coefficient of variation of GDP per capita among countries surveyed will reduce over time.

2.2 Development of GDP per capita adjusted for purchasing power

Figure 1 depicts the development of GDP per capita in purchasing power standard (PPS) in EU-15 countries in years 1995-2011. From the figure it is obvious that differences between countries in absolute terms increased. In contrast, differences between countries in relative terms decreased, although in some cases did not change. This fact shows also Figure 2, which shows trends in relation to the EU-15 average.

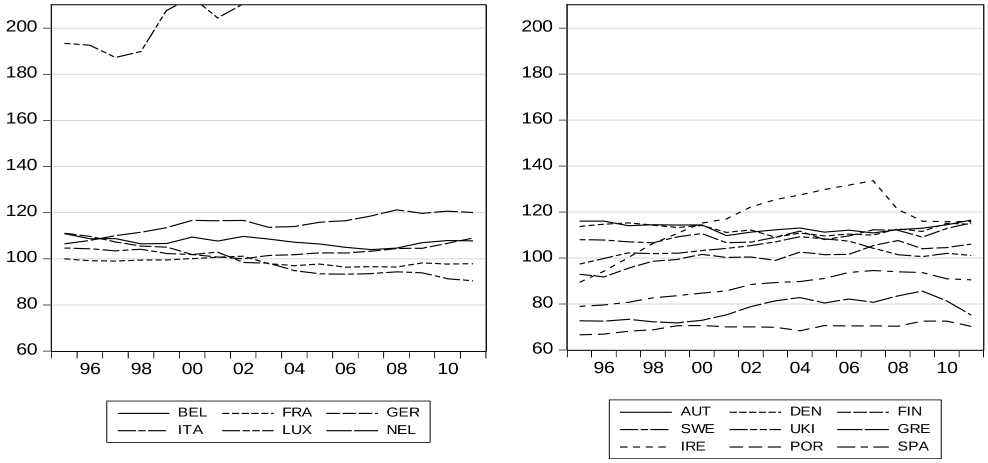
Figure 1: GDP per capita (PPS) in the EU-15 and EU-12 countries



Source: Eurostat (2012).

If we do not take into account the two countries with the highest GDP per capita (Luxembourg and Ireland), the difference between the highest and lowest GDP per capita was in 1995 8423 PPS and 12974 PPS in 2011. In relative terms, however, it remained stable, or decreased slightly from 1.74 times to 1.66 times. When including Luxembourg and Ireland differences are of course much higher. The difference between the lowest and highest GDP per capita rose for this period from 21 588 PPS to 48 190 PPS, that is from 2.9 times to 3.5 times.

Figure 2: GDP per capita convergence of EU-15 countries towards EU-15 level (EU-15=100)



Source: Own calculations based on Eurostat (2012)

Figure 2 proves also evident divergence in the level of GDP per capita between the original six founding members of the EU, which started to appear after 2002. If we draw our attention to the catching-up countries in the EU-15, an extremely high growth rate of GDP per capita was shown by Ireland. The level of 89% reached by the EU-15 in 1995 was outdone in 2007 at the level of 134% above the EU-15 average, but then there was a reduction to values of around 115% of the EU-15, where it is at today. Spain demonstrated also a successful development of GDP per capita up to 2007 and it reached a level of 95% of the EU-15. In the case of Greece the only successful development was recorded in the period 2000-2004 and Portugal came very slightly closer to a level of the EU-15 during the reporting period 1995-2011. Since 2009, the level of GDP per capita in the latter three countries in relation to the EU-15 average has been decreasing, i.e. economies are diverging.

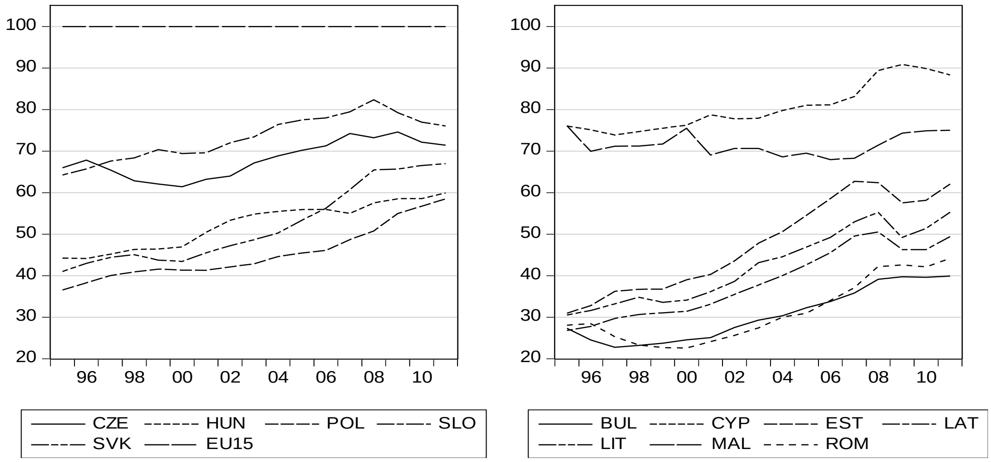
New EU member states show a much lower GDP per capita in purchasing power standard. Figure 3 depicts the development of GDP per capita both in CEC-5 and other seven new member states towards EU-15 average. Generally what is valid is that they get closer from below to the level of the EU-15 average. The possibilities of convergence from below are considerable for these countries. At present, they are gradually beginning to approach the level of Portugal or Greece, which these countries demonstrated in 1995. The exceptions among the new EU member states are Cyprus, Malta, Slovenia and the Czech Republic, whose initial level of GDP per capita was higher.

If we did not consider convergence in relation to the EU15 average but to the EU-27 average, besides convergence from below to the average, we could notice convergence from above (to the average), which is the fastest among countries with the lowest GDP growth. Moving away from the European average up above its value (e.g. Luxembourg) implies divergence. Reverse divergence (slower growth than the

European average growth and receding from the average downwards) has been then recorded by Portugal since 2002.

Among the analyzed CEC-5 only countries with the lowest baseline level of GDP per capita (i.e. Poland, the Slovak Republic, and Hungary) converge towards the EU-15 GDP per capita level throughout the period 1995-2011. The Czech Republic diverged slightly in the late 90s and again after 2009, Slovenia shows a slight divergence from 2008.

Figure 3: GDP per capita convergence of new EU member countries towards EU-15 level (EU-15=100)



Source: Own calculation based on Eurostat (2012)

Since the given development of the GDP of individual countries can be affected by the economic cycle and output gap, the comparison was made also on the basis of potential product development. The potential product was obtained by filtering the actual values of GDP through the Hodrick-Prescott filter. In this approach, we assume that the potential growth rate is sustainable in nature. In contrast, output gap changes momentarily and cyclically fluctuates around the potential product, and in the long term, the sum of output gaps equals to zero. In this case, convergence can be recorded to the EU-15 average for all countries. It should be noted that in the second half of the first decade convergence slowed considerably in Slovenia and Hungary, while it significantly increased both in Poland and the Slovak Republic. The Czech Republic in this period did not show any significant changes in the trend of convergence towards the EU-15 level.

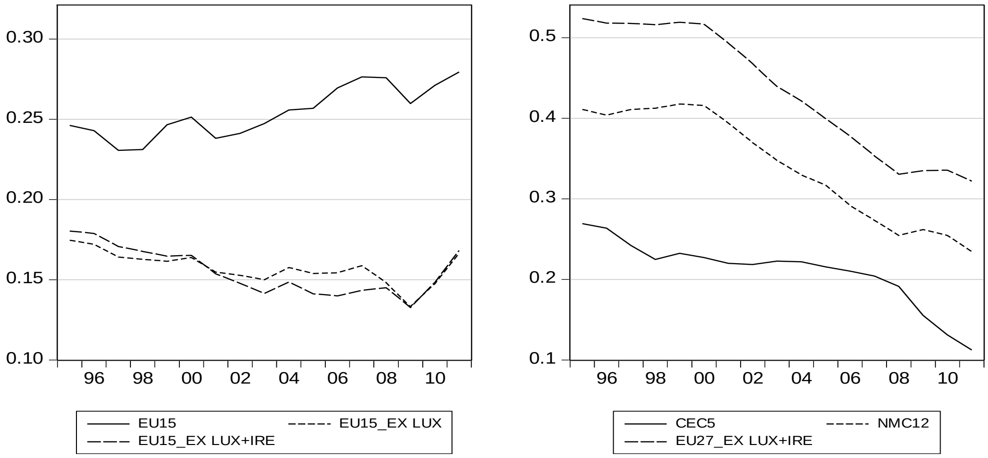
3. Empirical findings

The development of σ convergence in the European Union is portrayed in Figure 4. Convergence of the EU-15 countries is shown in more variants. As GDP per capita of Luxembourg began rising rapidly in the 80's and from 1995 it reached 193% of the EU-15 average, convergence is assessed both for the EU-15, and for the EU-15 without divergent Luxembourg. Similarly, Ireland has become a divergent country that caught up with the EU-15 GDP per capita level in 1997 and in 2007 it exceeded 37%.

For that reason, convergence for the EU-15 countries is evaluated without those two countries: EU-15 (excl. LUX+IRE). The figure shows that before 2000 convergence of the EU-15 (excl. LUX+IRE) almost stopped, and then continued up to 2003. The following stagnation was replaced by a sharp σ divergence that returned the EU-15 back to the level achieved in the past in 1997.

Sigma convergence of the whole EU-27 (again the variant excluding Luxembourg, possibly Ireland) is shown on the right side of the Figure 4. What is also depicted is the line for the CEC-5 countries, whose downward trend shows the acceleration of σ convergence after 2000, which lasted up to 2009.

Figure 4: σ Convergence of GDP per capita at PPS in the EU, 1995-2011



Source: Own calculations.

In order to verify the σ convergence hypothesis, we estimate the trend line of the coefficients of variation of GDP per capita in Figure 4 for the period 1995-2011. The results for EU-15, EU-15 excluding Luxembourg, EU-15 excluding Luxembourg and Ireland, EU-27 excluding Luxembourg and Ireland, 12 new EU member countries (NMC-12), and CEC-5 are presented in Table 1. In all cases except EU-15 is parameter of trend line slope negative, thus σ convergence exists or more precisely the hypothesis is verified.

The development of σ convergence measured in terms of the potential GDP per capita for the EU-15, EU-15 (excl. LUX), EU-15 (excl. LUX and IRE) and the CEC-5 (not displayed) demonstrates very similar features to Figure 4. What clearly follows from the comparison of σ convergence of GDP per capita and potential GDP per capita is that the economic cycles in EU member states are not synchronized. Therefore, it is advisable to monitor both short-term and long-term development trends.

Table 1: Estimations of trend lines for development of σ convergence

	Adj. R2		Parameter	t-Statistic	Probab.
EU-15	0,71	Interc.	0,2301	53,53	0,000
		Slope	0,0027	6,36	0,000
EU-15 ex LUX	0,40	Interc.	0,1691	42,92	0,000
		Slope	-0,0013	-3,39	0,004
EU-15 ex LUXIRE	0,46	Interc.	0,1736	31,71	0,000
		Slope	-0,0021	-3,85	0,002
EU-27 ex LUXIRE	0,93	Interc.	0,5719	55,02	0,000
		Slope	-0,0153	-15,06	0,000
NMC-12	0,92	Interc.	0,4577	45,74	0,000
		Slope	-0,0130	-13,27	0,000
CEC-5	0,79	Interc.	0,2765	28,70	0,000
		Slope	-0,0074	-7,92	0,000

Source: Own calculations

Beta convergence occurs when less developed countries grow faster than more developed countries, meaning that there is a negative relationship between initial GDP per capita level and its growth rate. In order to verify β convergence hypothesis, we estimate regression:

$$1/T \ln(y_{i,T}/y_{i,0}) = \alpha_0 + \alpha_1 \ln y_{i,0} + \varepsilon_t \qquad (2)$$

where $y_{i,T}$ and $y_{i,0}$ are GDP per capita at PPS in country *i* in the last year and the first year of the analysed period.

The regression equation was estimated by using the method least squares. Estimates were again performed alternatively for four groups of EU member states: the EU-27, the EU-27 excluding Luxemburg and Ireland (EU-27[LI]), CEC-5 along with EU-15 (CEC-5_EU-15), and CEC-5 along with EU-15 excluding Luxemburg and Ireland (CEC-5_EU-15[LI]). The results for β convergence for the period 1995-2011 are shown in Table 2 and Figure 5.

The fourth column in Table 2 shows the estimates of the regression equation. The β coefficients are negative, which indicates β convergence for both the EU-27 and CEC-5 along with EU-15. In the case of the EU-15 (not displayed in Table 2) β coefficient is positive, in the case of the EU-15 excluding Luxembourg and Ireland (not displayed in Table 2) it is negative but statistically insignificant. Therefore, it can be stated that β convergence in the EU-15 does not occur.

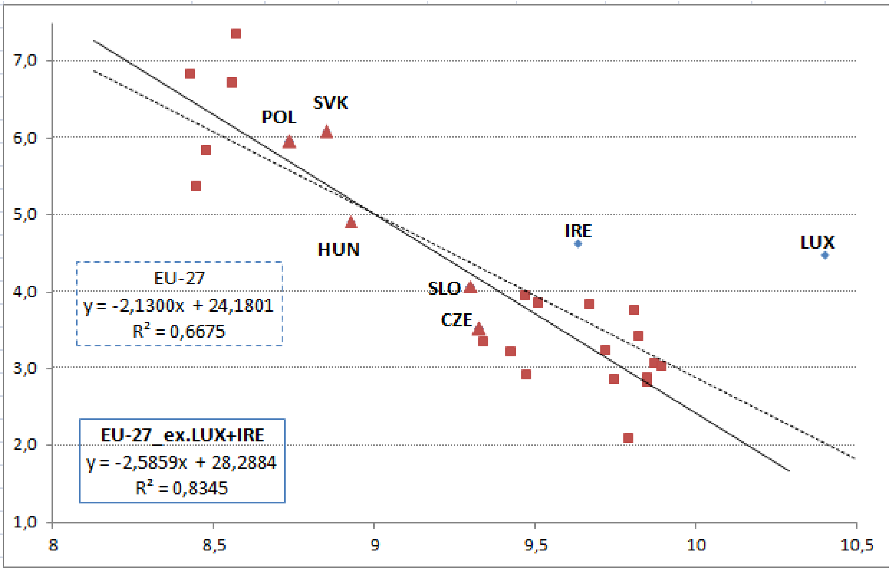
The graphical representation of β convergence in the EU-27 in Figure 5 also shows that the exclusion of Luxembourg and Ireland from the analysis affects the results. The beta coefficient in absolute value increases and the speed of convergence increases. The coefficient of determination increased to 83%, which means that the initial level of income in this model can account for 83% variation in growth rates between countries. Slavík (2007) came to similar results, too.

Table 2: β convergence in the European Union, 1995-2011

	R2 Adj.R2		Parameter	t-Statistic	Probab.
EU-27	0,6675	Slope	-2,1300	-7,0844	0,0000
	0,6542	Interc.	24,1801	8,5746	0,0000
EU-27[LI]	0,8345	Slope	-2,5859	-10,7673	0,0000
	0,8273	Interc.	28,2884	12,6300	0,0000
CEC-5_EU-15	0,4075	Slope	-1,6173	-3,5184	0,0025
	0,3746	Interc.	19,2431	4,3702	0,0004
CEC-5_EU-15[LI]	0,7577	Slope	-2,4316	-7,0734	0,0000
	0,7426	Interc.	26,8281	8,1899	0,0000

Source: Own calculations

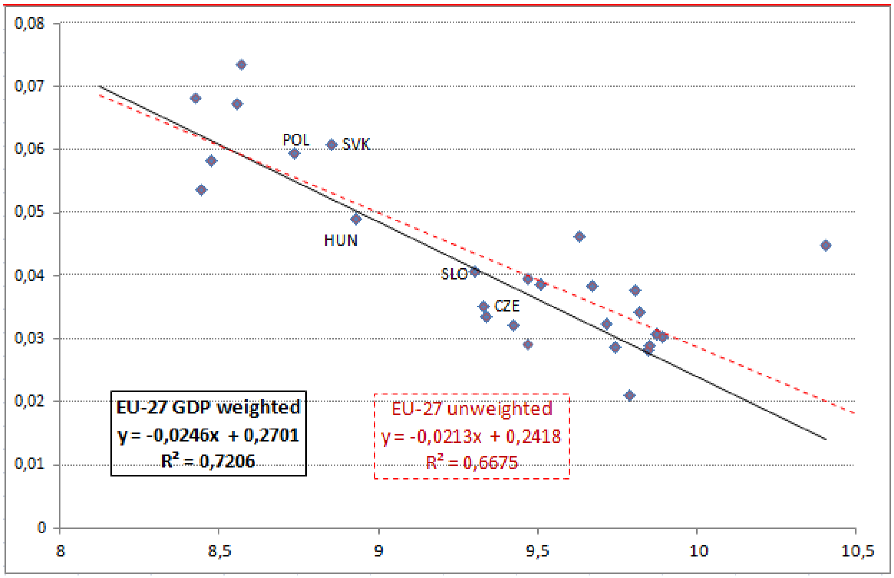
Figure 5: β convergence in EU-27



Source: Own calculations

These calculations of β convergence for comparability with other studies were conducted on unweighted data. In the introduction, however, the significantly heterogeneous structure of the EU was stated. The same weight that is attributed to the economies of Germany, France, and the United Kingdom on one side and Luxembourg or Malta on the other hand, can significantly skew results. Therefore, the Figure 6 captures the results for "GDP-weighted" β convergence obtained by recording weights for individual countries while taking into account each country's share of GDP across the whole EU. The speed of β convergence in this case is higher.

Figure 6: GDP-weighted β convergence in EU-27



Source: Own calculations

The Figure 6 shows the following facts:

a) The Czech Republic is (like Slovenia) well below the regression line. An average growth of 2.6% would therefore correspond to the achieved level of income, i.e. considerably higher than that reported;

b) The Slovak Republic and Poland lie above the regression line. A lower growth than that reported would therefore correspond to the level of income of these countries;

c) When investigating β convergence on samples of other countries, the slope of the regression line changes. While the Czech Republic remains below the regression line (it should therefore grow faster than it actually grows), Poland crosses the threshold of the regression line. Thus, if in the first case the economy grew faster than its income, which is not the case in the latter case, in addition Poland's economy has a lower growth than it would have with regard to achieving its income.

Findings a) to c) can of course also be interpreted so that the Czech Republic is growing at a pace which it should grow only at a higher level of income. Slovakia and Poland are growing at a pace which less developed economies with lower incomes should grow.

4. Conclusion

Based on the analysis, we can state that the CEC-5 countries converge to the EU-15 average. Their convergence rate is somewhat lower than the speed of convergence of the new EU member states as whole. This is probably due to a higher initial level of GDP per capita in PPS in CEC-5 countries. The speed of convergence and difference in GDP per capita as compared with the EU-15 imply that convergence to the EU-15 average will be a long-term process.

From the analysis of convergence of the EU-15 countries we can draw conclusions about some divergence tendencies. These are smaller, once the outlying observations (Luxembourg, Ireland) have been excluded from the analysis. In our opinion, we can only proceed in this way in the case of relatively small economies, whose share of GDP across the whole EU is very small.

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Innovation Policy of the European Union

Ľudmila Lipková
University of Economics in Bratislava
Faculty of International Relations
Department of international economic relations and economic diplomacy
Dolnozemská 1, 852 35 Bratislava, Slovakia
lipkova@euba.sk

Abstract
Innovation and the European Union, innovation in most developed countries of the world, comparative analysis of the situation in innovations and the position of the European Union, EU Member States and the implementation of innovations, the four groups of countries and the success in innovation, the Lisbon strategy and the competitiveness of the European Union, Strategy 2020, the European Union lagging behind in innovation, instruments of the European Union innovation policies, Competitiveness and Innovation Framework Programme - CIP, the European Institute of Innovation and Technology based in Budapest.

Keywords: *Innovation, competitiveness, instruments of EU innovation policy*

JEL codes: *E61, H52, I28*

1. Introduction

In addition to expanding the membership base of the European Union, there is significant deepening of member cooperation within the European Union. The European Union seeks to ensure its efficient operation and high competitiveness in the global economy. High competitiveness in the global economy can only be achieved by introducing innovations in production and services in EU Member States. Research and innovation contribute to a high level of prosperity of individuals and the society as a whole. It should be noted that the European Union at the beginning of the 21st century is losing its position in the global economy and its competitiveness is declining.

In order to maintain its position in the global economy or to improve this position as well as to improve the situation in the European Union itself, that is to improve the situation of its member states, the European Union should adopt measures that will be more resultant than its previously adopted measures. We refrain in the presented text from using the phrase "must take action" because we do not consider such statements to be suitable for the purpose of contributing to a scientific conference. Although it is evident from the developments in the positions of more successful innovators in the world economy that unless the European Union does not accept more resultant measures in this direction, its position will be continuously deteriorating and the economic level of its individual Member States will grow more slowly than of those with higher levels of innovation . Additionally, the standard of living of its citizens will grow more slowly and their quality of life will change slowly as well.

Addressing the current socio - economic problems of European Union member states will not be possible otherwise than through a conversion of the EU into an "Innovation Union" as a "flagship" according to the Strategy 2020, as decided by the European Union herself.

Due to the introduction of innovation in the socio - economic sphere, new jobs will be created, ensuring green growth and social progress

2. The current situation in the European Union in the field of innovations

The level of innovation in every economy is affected by financial and human resources. The situation in the European Union can be documented by the share of spending on science, research and development. The European Union spends an average of 2% GDP on research and development, the U.S. economy 2,8% and Japan 3,4%. The share of population in the age group between 25 to 34 years that has attained higher education is 34% in the European Union, 42% in the USA and 55% in Japan (Barroso, 2011).

The European Union annually conducts an evaluation of the level of competitiveness and innovation of Member State economies.

The comparison of results in innovation is based on 24 indicators that are grouped into three main categories. The first category includes "preconditions," i. e. basic building blocks that enable the realization of innovations. These include human resources, finances and general support. The second category consists of "business activities" that capture the innovative efforts of European companies such as corporate investment, custody and support, intellectual assets and more. The third category consists of "outputs" which demonstrate how to translate innovation into benefits for the economy as a whole (innovators and economic effects as a whole, including employment).

The biggest difference between the innovation leaders and the European Union persists in the category of "business activities". The European Union is lagging behind in business spending on research and development in high-end and attractive research systems. There is a lack of top researchers here. To improve the situation the European Union must improve training and education of its own cadres or lure talent from abroad.

Based on the analysis of results from the application of innovations in 2011, it is possible to divide the EU Member States into four groups of (1) leading innovators, (2) successful innovators, (3) moderate innovators and (4) weaker innovators.

1. The **leading positions** in the evaluation of innovation were achieved by Sweden, followed by Denmark, Germany and Finland. These innovative leaders have several strengths. A key role in innovation in these economies is played by business activities and the interoperation of private and public sectors. We can observe sufficient investments in research at the state level as well as at the industrial level. Sweden as the most successful innovator dominates in human resources, finances, business activities, general support and investment. The top European innovators are

very successful in the commercialization of their technological knowledge as well.

2. The group of **successful innovators** consists of Belgium, Cyprus, Estonia, France, Holland, Ireland, Luxembourg, Austria, Slovenia and United Kingdom.

3. The Slovak Republic is on the 23rd place in the European Union in the rate of innovation. It belongs to the group of **moderate innovators** with the Czech Republic, Greece, Hungary, Malta, Poland, Portugal, Spain and Italy.

Slovakia belongs to the group of countries that are only catching up. Slovakia's lagging behind of other countries has several causes, such as low spending in public and private sector research and development. The average expenditure of the European Union in innovations amounts to 1,82% of GDP while in Slovakia this indicator is only 0,48%. Public sector funds are involved in the overall expenditure on research and development at 55% (Pravda [online], 2011).

4. **Weaker innovators** are Bulgaria, Latvia, Lithuania and Romania (Euractiv [online], 2012).

2.1 The Lisbon Strategy of the European Union

The European Union began to experience a significant lag behind the U.S. economy at the end of the last century. In response, the Union has developed a document called the Lisbon strategy. The strategic objective, which was outlined in the Lisbon Strategy adopted in 2000, was to lead the EU to the position of the most competitive and dynamic knowledge-based economy by 2010, capable of ensuring sustainable growth with more and better jobs and a greater social cohesion. The Lisbon strategy goals have not been achieved.

The Lisbon strategy directed Member States to promote innovation, research and entrepreneurship in Europe. London School of Economics conducted a study of the reasons for the lagging of the European Union behind U.S. (Euractiv [online], 2006). They include the reluctance of European Union member states to implement reforms of the labour market and the inability to enact patent laws applicable throughout the EU (EU patent registration is five times more expensive than in the U.S.). Another reason for the failure of the European Union according to the abovementioned study is the lack of investment in research. The Lisbon strategy obliged Member States of the EU to invest in research and development the amount equal to 3% of GDP. The amount for the European Union as a whole has never exceeded 2%. Low R&D funding places the Union behind the United States and Japan while China is catching up. Another reason for the declining competitiveness of the European Union is the brain drain from EU Member States, especially into the U.S., that are the preferred destination for migrant scientists.

At the beginning of the second decade of the 21st century, the European Union deepens its lag behind the leading innovators in the world – U.S., Japan and South Korea. In 2011 however, all EU member states did improve their innovation performance, but the overall EU innovation performance slows nonetheless. Innovations are most lagging behind in the private sector.

2.2 Strategy 2020

Similarly to the Lisbon Strategy, the Strategy 2020 set a goal for the Union as a whole and for its individual Member States to increase funding in research and development up to 3% of GDP. We hope that the Member States will adopt the innovation policy as political priority. Through the implementation of a dynamic innovation policy, solutions to other problems may be generated and the whole European Union would shift to a qualitatively higher level.

By increasing investment in research and development to 3% of GDP by 2025, 3,7 million new jobs could be created and the annual GDP of the EU could rise by 795 billion euros. To achieve these goals, however, the EU will need another million additional researchers (EU [online], 2011).

The European Union envisages within the building of an "Innovation Union" the creation of a wide range of tools for successful implementation of its objectives.

2.3 Innovation policy instruments of the European Union

European Union creates programs and funds to support innovation in its member states.

One of the EU responses to the lag behind global competitors - leading innovators in the world economy - was the adoption of the Framework Programme for Competitiveness and Innovation (Competitiveness and Innovation Framework Programme - CIP) for the years 2007 - 2013. The program should contribute to the increase in competitiveness and innovative capacity of the European Union. It is supposed to lead to the building of a knowledge society and entail sustainable development based on a balanced economic growth. The primary objectives of the Framework Programme (CIP) are the promotion of competitiveness especially of SMEs, promotion of overall innovation, including eco-innovation, sustainable, competitive, innovative and inclusive information society, promotion of energy efficiency and new renewable energy sources in all sectors including transport.

Innovation is supported by the European Union also institutionally. In the year 2007, the governments of EU member states approved the establishing of the European Institute of technology. It began functioning in the year 2009. Within the Institute, research groups, universities and private companies are active. Through the institute as well should an increase of EU spending on research be realized. Expenditures on research in the EU reach around 1,8%. In the USA, the largest competitor of the European Union in terms of innovation, the expenditure on R&D amounts to 2,7% of GDP. For the years 2008 – 2013, the Institute has a planned spending of 2,4 billion euros. The EU budget should contribute to the functioning of the Institute with 300 million euros (eTrend [online], 2007).

The main purpose of the institute is to attract and motivate to stay the best and most talented students and researchers from across Europe and beyond. Institute headquarters is in Budapest. The Institute should contribute significantly to innovation in the European Union. It envisions to be a breeding ground for new ideas and the free movement of knowledge. It should at least partly cover the deficit financing of science and research in the European Union and brig is closer to 3% of GDP.

3. Cohesion Policy of the European Union and support for innovation

Coupled with economic development began a deeper economic cooperation within the European Communities. Many of the policies of the European Union modified its objectives. It should be underlined that the European Union as an international economic community has also aims not only economical, but also socio-politic. Of the socio-politic nature are mainly two policies - the common agricultural policy and the cohesion policy.

The Common Agricultural Policy had since its introduction in 1962 the aim of supporting financially farmers of European Union member states, because they were unable to compete with cheap agricultural produce from abroad. One aspect of support for farmers in the European Union has always been innovation and the subsequent increase in their competitiveness.

Another policy with a strong political and social nature is the cohesion policy of the European Union. One of the objectives of the European Economic Community at its creation was the levelling of underdeveloped regions with more advanced ones. The regional policy of the European Union was supposed to play this role. Its importance increases particularly with the enlargement of the European Union when poorer regions[36] with low GDP per capita and high unemployment became its part. The enlargement of the European Union by the relatively poorer countries[37] emphasized the importance of this policy. Low economic level of many regions and countries of the European Union is due to their low competitiveness. Low competitiveness of poor regions and poor countries is again due to low implementation of innovations in manufacturing and services.

The European Union allocated in the system of financing of its activities funding for poor regions and poor countries. These funds are pooled in Euro funds. Poor regions are financed by the European Social Fund, which was created back in 1958. The role of the European Social Fund is to financially support employment, to integrate the unemployed, especially young people into the labour market and promote the development of human resources. One of the tasks of the European Social Fund is therefore the strengthening of human potential in research and development sector. Entitled to draw from this fund are all regions of the European Union regardless of their economic level. Another fund to support the development of less developed regions is the European Regional Development Fund. This fund was created in 1975. The disbursements of this fund are entitled only to poor regions. European Regional Development Fund accounts for financing to investment in businesses that create permanent jobs, invest in infrastructure, support development and bring about innovation in telecommunications, environment, energy and transport.

[36] A poor region in the European Union reaches GDP p. c. lower than 75% of EU average
[37] A poor country in the European Union reaches GDP p. c. lower than 90% of EU average

The financial mechanism for the years 2007 - 2013 outlined the main priorities of EU policies. The main priorities of cohesion policy were broadened by research and innovation, support for information and communication technology, support for small and medium-sized enterprises, improving the quality and accessibility of education and training and improving the environment.

For the **priority of research and innovation** in the current financial period (2007 -2013), 86 billion euros were set aside, representing a quarter of spending on cohesion policy of the European Union. The most significant expenditure in this area is anticipated in Spain in the amount of 8 billion euros. In Spain, this amount represents 23% of total funding from EU funds. In the Slovak Republic approximately 20% of total received EU funds will be invested into research and innovation. The largest share of received EU funding will be invested in research and innovation in Denmark, Finland and Austria, where this proportion reaches 70% (Euractiv [online], 2008).

In the course of 2012, the EU will complete the preparation of the Financial Mechanism for the years 2014 -2020 in order to carry out all work in 2013 related to the start of its implementation in 2014. At present it is assumed that for the cohesion policy the EU will allocate for the next seven year period a total of 336 billion euros (FSR [online], 2011).

4. Conclusion

As stated by the EU Commissioner for Research, Innovation and Science, Máire Geoghegan-Quinn, the year 2011 saw an increased innovation potential of the European Union. Nevertheless, the overall innovation performance of EU slows down. The Union will continue moving away from USA, Japan and even South Korea. Most lagging behind innovation in the European Union is the private sector.

Therefore, the European Union as a whole and especially its less successful states are to reconsider government spending on innovation. In particular, less successful states in innovation policy should take penetrative measures to improve their situation in this respect.

Innovation policy is a costly policy. At the same time, it brings with it a considerable risk of failure in a particular moment and can lead to significant losses. However, successful innovation policy in turn provides high competitiveness and prosperity.

The newly-designed fiscal agreement assumes for the sake of maintaining equilibrium balanced state budgets in the euro area Member States. However, it is arguably necessary that the Member States will consider increased spending on science and research, whose results create innovation in the economy, as one of the exceptions to the strict state budget restrains despite a possible budget deficit. It is also necessary to look for instrument to motivate the private sector to innovate, such as in the form of tax breaks or other forms of state support.

Equally important is the support and reform of all levels of education. Given the need to increase the number of researchers in the European Union by about one million (as mentioned above), the European Union must "innovate" its policy of retaining talented researchers within the Member States of the European Union or attracting talents from non-members to fulfil the goals of an "Innovation Union".

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Effect of the EBA Initiative Implementation on the EU and LDCs Reciprocal Trade

Ingrid Majerová
Silesian university in Opava
School of Business Administration in Karviná, Department of Economics
Univerzitní nám. 1934/3, Karviná, Czech Republic
majerova@opf.slu.cz

Abstract
This paper deals with the issue of participation of the Least Developed Countries, known as the LDCs, in international trade, focusing on reciprocal trade among these economies and the European Union through "Everything but Arms" Initiative. Using the description and analysis methods, both the initial and current effects of this initiative implementation are described, focusing on the division of the analyzed economies into the countries covered and not covered by a group of developing countries in Africa, Caribbean and Pacific. The aim of this paper is to point out that the effects of the EBA initiative implementation for LDCs are not as generally positive as expected on the beginning and that they differ across these countries diametrically.

Keywords: *ACP-countries, European Union, Initiative EBA, Least Developed Countries, preferences*

JEL codes: *F14, O55, P54*

1. Introduction

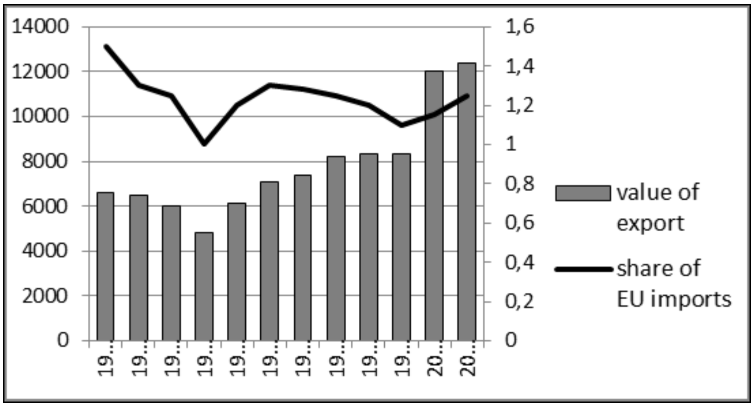
During the last forty years, international trade has become one of the most effective tools to support the development of any economy. It therefore needs to be supported, particularly in countries that have a low or structurally uneven level of development, which are developing countries and especially the LDCs group of countries. Mutual trade with these countries increases their export earnings, promoting industrialization and diversification of their economies. Classical tools for achieving these objectives are tariff preferences, which provide incentive for the traders to import products from these developing countries, thereby enabling them to compete on international markets.

In 1968 the United Nations Conference on Trade and Development (UNCTAD) recommended advanced countries to create a Generalized System of Preferences which would grant autonomous trade preferences to all developing countries. The European Community was the first which implemented the GSP (in 1971) and established a regular update cycle of ten years (the current cycle has run from 2006 to 2015). With the growing importance of international trade and mutual interdependence of economies it was gradually shown that the GSP was not sufficient for the LDCs, and therefore the European Union in February 2001 adopted Council Regulation (EC) 416/2001, the Everything But Arms initiative (EBA), which was subjected to criticism from the outset by some experts (see Page and Hewitt, 2002).The EBA provides duty-free access to imports of all products from the LDCs, except arms and ammunition, without quantitative restrictions. The EBA was later incorporated into the GSP Regulation (EC) No 2501/2001 which stipulates that a special arrangement for the LDCs should be maintained indefinitely and is not subject to periodic renewal of the GSP.

2. Analysis of the initial effects of the EBA introduction on the LDCs

The development of LDCs exports to the EU recorded in the 90´s of the last century a slight increase with a substantial recovery in the years 2000 - 2001 (of about 30%). There was a different trend (decrease) in LDCs export share of the overall EU imports, and in 2001 the share of the LDCs in the EU market was nearly 25 percent lower than in 1990 (see Figure 1). Connecting these two values, the initial positive effect of the EBA initiative was rather reduced by a downward trend in import share of the LDCs.

Figure 1: Export of the LDCs to the EU and its share of the imports in the EU in the period 1988-2001 (in million Euros and %)



Source: author's calculations according to Majerová (2011)

Although the result of the introduction of EBA was an immediate liberalization, it is important to mention that most products from those countries had already received duty-free treatment under the GSP and the Cotonou Agreement. ACP countries thus could, if they wanted, continue exporting to the EU under the Cotonou Agreement; however countries not covered by the ACP gained duty free access onto EU markets only within the EBA. As Matthews and Gallezot (2006) show, the EBA initiative was designed to remove barriers for 919 of the total 10,500 tariff products (in particular for agricultural products). In 2000, imports from the LDCs countries of these 919 product lines recorded only 80 kinds of goods (13 products were liberalized with a delay, such as bananas, rice and sugar, see Bora et al., 2002) and amounted to 73.6 million Euros, which corresponds to half of one percent of LDCs exports to the EU countries (of which almost 63 million Euros was just delayed by the liberalization, as specified in Table 1). A year later 80 product lines were again liberalized, including 11 with delayed liberalization. Export of the ACP countries liberalized goods to the EU was 3.7 million Euros in 2001, which implies a significant decrease in exports of

10.7 million Euros of these products in 2000. This decline was caused by a decrease in the sorghum Sudan imports from 7.2 million Euros in 2000 to 0.8 million Euro in 2001. Excluding this item, still the imports fell from 3.5 million to 2.9 million Euros in 2001. The value of exports of goods with delayed liberalization decreased slightly from 62.9 to 60.7 Euros in 2001. The table also shows that the vast majority of exports of goods liberalization under the EBA came from ACP countries and only small flows went from countries outside the ACP.

Table 1: Impact of the EBA initiative for LDCs in 2000 and 2001 (in thousands Euros)

	liberalized export under EBA	**export with delayed liberalization**	**export under EBA**	**total export**
LDCs exports to the EU				
2000	10.657	62.963	73.629	11.733.712
2001	3.658	60.670	64.328	12.858.993
ACP-LDCs exports to the EU				
2000	10.505	62.904	73.409	7.764.664
2001	3.344	60.596	63.940	8.634.365
exports outside the ACP-LDCs to the EU				
2000	152	59	214	3.969.048
2001	313	74	387	4.225.518

Source: author's calculations according to Brenton (2003)

On the other hand, from the above table we can determine that the overall exports of the LDCs to the EU grew by 9.6 percent. But it would be unrealistic to claim that this increase was caused by the EBA initiative. Within the group of the LDCs, the impacts of the EBA also vary, according to Brenton (2003) a drop of more than 30 percent in exports was recorded in 12 countries, exports fell by less than 30% in 16 countries and 19 countries recorded a growth in exports, of which 9 more than 30%. This means that for most countries, the initial impact of the EBA is negative in terms of their exports to the EU countries.

In general, the volume of liberalized trade with products was very small, Haiti showed the largest percentage during this period (0.97) followed by Zambia (0.86). The rest of the countries ranged 0-0.26%. The opposite situation prevailed in the case of delayed liberalization, which made up to 0.7 percentage (Malawi showed the largest percentage of 11.6 percent, Bhutan with 4.89, Sudan 4.61 and Zambia with 4.21 percent). These products are more important for the ACP countries than outside ACP countries and it should be noted that according to the overall results based on these exports to the EU the delayed liberalization had no effect on future liberalization under the EBA for most LDCs, because thirty-two LDCs do not export bananas, rice or sugar to the EU.

3. EBA initiative in years 2002 to 2010

Based on the above data, we find that the initial impact of the introduction of preferential EBA initiative did not have an expected effect for the LDCs. Problems with the rules of origin or inertial negotiations of the LDCs caused a slower implementation of these economies onto international markets.

3.1 Effect of EBA for LDCs exports in the years 2002 to 2005

After the introduction of the EBA initiative into practice there was an unequal increase in exports in both observed LDCs groups - the ACP countries and countries outside the ACP – while in the African ACP economies there was a twofold increase in exports of products covered by the EBA, the Asian economies increased even by a triple. Countries outside the ACP increased their exports by just one quarter; it is 25 percent (Matthews and Gallezot, 2006). In contrast, only five products under the EBA preferences have accounted for more than 1% of total exports of products under the EBA (since 2002) and together they formed more than a quarter of exports under the EBA (except with delay liberalized sugar, which accounted for more than 60% of the total exports of the LDCs to the EU), as shown in Table 2.

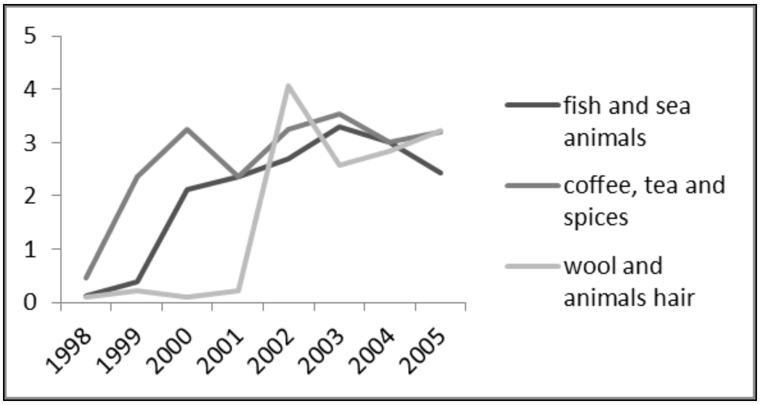
Table 2: Export shares of the five most exported products to the EU markets in the years 2001-2005 (in %)

products	2001	2002	2003	2004	2005
fish and sea animals	2.37	2.69	3.29	3.00	2.44
coffee, tea and spices	2.36	3.25	3.54	3.01	3.19
products of plant origin	1.91	2.55	3.31	3.24	2.79
leather	0.76	1.23	0.87	1.09	1.14
wool and animal hair	0.23	4.07	2.57	2.83	3.22
total export to EU	0.11	0.19	0.19	0.23	0.19

Source: author's calculations according to Aiello a Cardamone (2010)

However, a disadvantage is that these shares are volatile instead of showing a stable growth that would reflect an increasing involvement of the LDCs into international trade; many of the shares vibrate more than would be desirable. The situation in case of three commodities - fish and seafood, coffee and other foodstuffs, as well as wool and animal hair, reflects Figure 2, where the period 1998 -2000 is also added.

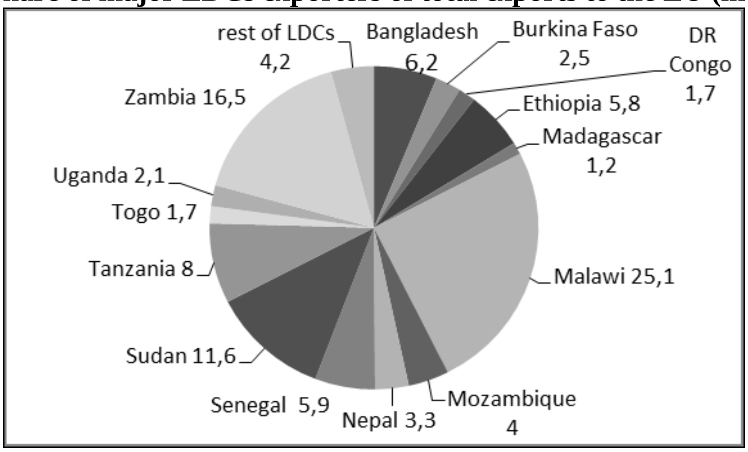
Figure 2: Volatility of exports share of selected commodities in 1998 to 2005 (in %)



Source: author’s calculations according to Aiello a Cardamone (2010)

From the perspective of the countries exporting the above products, we can say that compared to 2000 – a year before the introduction of the EBA – their number increased to 14 (from 11 in 2001) and these countries account for almost 96% of the total exports of the LDCs to the European Union. These are mainly African countries; we find Malawi (25.1% of the value of exports to the EU) and Zambia (16.5%) at the head. The exports value of these countries to the EU has increased sharply since the introduction of the EBA – tripled in case of Malawi and Zambia. The share of individual countries is shown in Figure 3. It should be said that an improvement of the export situation cannot be generalized – the introduction of EBA preferences meant an improvement only for less than half of the countries, the largest drop since 2000 has recorded Sudan (by 10.3 percentage points to 11.6%), followed by DR Congo (by 5.7 percentage points) and Senegal (by 4.1 percentage points).

Figure 3: Share of major LDCs exporters of total exports to the EU (in %)



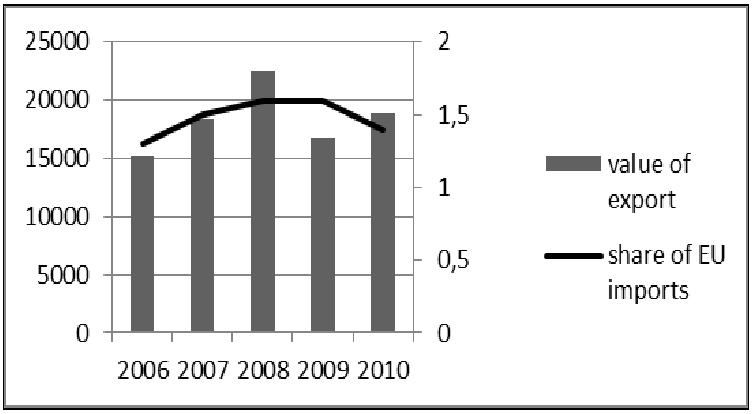
Source: author’s calculations according to Matthews a Gallezot (2006)

3.2 Effect of EBA on LDCs exports in the years 2006 to 2010

The LDCs showed a big boom in the new millennium, however, after this boom period, a financial crisis occurred in the United States of America which further expanded and grew into an economic crisis that affected the trade between the EU and the LDCs in the EBA initiative as well.

If we make an analysis identical with Figure 1, we find that LDCs exports in 2009 decreased and the share of the total EU imports began to decline in 2010 (see Figure 4). This was due to the fact that in 2009 almost all economies were affected by the crisis and their recovery already occurred in 2010 but to a greater extent than in the case of LDCs.

Figure 4: Export of the LDCs to the EU and its share of imports in the EU in 2006-2010 (in million Euros and %)



Source: author's calculations according to the EU (2011)

Within the commodity structure the exports of fuels and minerals prevailed in the observed period, whose share of the total EU imports was not very significant (in 2010 amounted to 2%) and clothing exports, whose absolute amount was far lower than in the previous product group, but the share of the total EU imports amounted to 10.3 %, as shown in the Table 3.

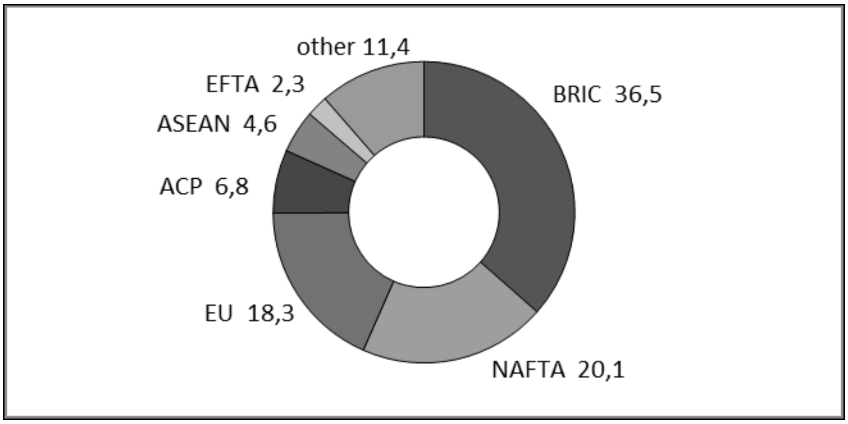
Table 3: Commodity structure of exports and their share of the total EU imports

product group	2006		2008		2010		SEUI*
	mil.Euro	%	mil.Euro	%	mil.Euro	%	
primary products	8,846.2	50.1	17,055.8	68	12,338.8	56.7	2.2
agricultural	2,841,1	16.1	3,078.1	12.3	3,281.6	15.1	2.8
fuels and minerals	6,005.1	34	13,977.7	55.7	9,057.2	41.7	2.0
processed products	8,723.2	49.4	7,734.3	30.8	8,981.9	41.3	1.0
iron and steel	4.1	0.02	9.5	0.04	3.9	0.02	0.02
chemicals	275.5	1.6	175.4	0.7	260.0	1.2	0.2
other semi	1,018.1	5.8	778.3	3.1	561.9	2.6	0.8
machinery	1,081.9	6.1	323.4	1.3	567.5	2.6	0.1
textiles	304.8	1.7	326.5	1.3	342.5	1.6	1.7
clothing	5,793.1	32.8	5.833.5	23.2	6,830.9	31.4	10.3
other	245.7	1.4	287.7	1.1	415.1	1.9	0.3
other products	58.5	0.3	298.5	1.2	342.9	1.6	1.2
total	17,652.1	100	25.097.1	100	21,745.3	100	1.4

Source: author's calculations according to EUROSTAT Comext (2012).
Note: * share of EU imports in %

Although the European Union is a major partner for the LDCs, it is not the largest trading partner. If we look at exports of these economies, the European Union is with 18.3 % share the second in terms of individual countries, after China (its share is 28.4 %) and before the U.S., accounting for 17.3 %. However, if we keep strictly to the fact that the European Union is an integration group, then its position "moves" to the third place after the BRIC grouping and the NAFTA, see figure 5.

Figure 5: Main export partners/group (% shares of total exports)



Source: Author's calculations according to Majerová (2011)

The high percentage of the BRIC is caused by the fact that China is the major recipient country, India ranks the third (with 7 percent), Brazil is on the 12th position (0.8 %) and Russia on the 23rd place (0.3 %). In case of the NAFTA the high percentage is caused not only by the share of the U.S. but also Canada, which has imported 2.7% of exports from the LDCs.

4. Conclusion

Can we state on the basis of the analyzed that the EBA initiative with its preferential conditions did have a positive impact on increasing the exports of the Least Developed Countries to the European Union? Generally, we can say so - LDCs exports soared, the share of exports of the EU imports (excluding crisis years) rose as well, although this indicator did not reach the level of 90´s nor in 2010. On the other hand, there is a deepening of the bilateral trade imbalance, as imports from the LDCs countries to the EU were in excess of their exports to the European Union countries, which is a slightly upward trend.

It is different with the impact on individual economies. While the initiative helped some economies enter in a greater extent in European Union markets – these are Malawi and Zambia, where the value of exports to the EU increased by a triple, in case of others there was a decrease (Sudan, DR Congo and Senegal). It can be concluded that the EBA initiative had an ambiguous impact on the LDC group of countries, particularly through its impact on individual economies.

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Competitiveness in the EU on the Context of the Globalized Economy

Florian Margan
Ljubljana, Slovenia
florian.margan@gmail.com

Abstract
Country´s competitiveness is a relative value that needs to be constantly proved by comparison with other countries and regions in EU. In my point of view the EU as a whole has not any problem with a lack of competitiveness, it concerns rather the individual states (particularly transit and Southern Europe. Selected EU economies in comparison to US and Japan, we cannot say that they are more competitive than some European countries such as Germany, Sweden, Finland and Denmark. With respect to global economics they have better results regarding competitiveness at all. We must take into account the fact that competitiveness depends on some extent of the definition of this term and how are they measured. Goal: in the interest of Europe's competitiveness is necessary to complete the single internal market. Austerity measures are needed and it is needed to create the conditions for further growth. Important are tax issues, healthy intersection of money to the regions and globalization of public goods.

Keywords*: Countries, EU, competitiveness, measure, definition*

JEL codes: *F01, M21, O14*

1. Introduction

New slogan governments actually becomes is competitiveness, energy security and data on raw materials (oil, gas) and today is one of the basic components of the political decisions of national statesmen. Ambiguity of the concept of competitiveness starts at linguistic level. The original Latin term "cumpetere" includes both the importance of cooperation and in a sense of competition. I agree that this analysis helps us understand the nature of the different approaches to competitiveness, which often differs in view of whether the individual actors compete or not (Beneš, 2006, p. 34).

The EU is in the last decade has undergone substantial changes. With the eastern expansion almost doubled the number of members of the EU's present 27 in 2013 be 28 member of Croatia , which will provide new impetus to the improvement of efficiency in economic and political level. In the economic sphere, the EU has experienced over the last decade the boom, but also a noticeable drop in (financial - economic crisis), who pointed out the importance of efforts to strengthen the competitiveness of European economies. Currently, the EU faces the consequences of the global economic crisis and the deepening gap between the performance of the EU and other developed economies of the world (USA, Japan , South Korea) and also face increasing competitiveness of the BRIC countries (Brazil, Russia , India and China).

Recently, also discussed in the context of the competitiveness is attractiveness of the country. It is a set of characters that allow the economy to increase national income and gain factors of production. The competitiveness is concerned with many scientists, states, talking and writing about it, its definition is not unified. There are a plethora of sometimes very different definitions of the term, emphasizing the often very different things. The core of the problem is how to apply to the states competitiveness, which is hardly detectable already at the microeconomic level. Compared to companies because not all states apply the criterion of survival, although states are uncompetitive, they cannot go out of business and markets are still here. This is related to changes in the global economy, where globalization leads to a certain visibility and competitiveness of each country macro-region.

The reason that we are dealing with the concept of competitiveness is particularly successful Asian countries, which led policies in the U.S. and the EU to consider how to face this competition. It starts with thinking about the source of this success and at what changed in the domestic economies in institutional settings or the world economy it was back to the U.S. and the EU, who is leading the way.

Monitoring of national competitiveness are also beginning to institutionalize. Over time, gives rise to various Council on Competitiveness, whose business is to analyze the competitiveness of the countries in comparison with major rivals in the global economy. Based on these analyzes are recommended measures that are subsequently more or less successfully implemented the economic policies of the States. One possible approach to the competitiveness of states represents the external competitiveness, which is evaluated according to the countries of export performance. This example corresponds to the definition according to which the country becomes more or less competitive, if as a result of the development cost factors will improve its ability to sell in foreign markets (Beneš, 2006, p.14).

2. Development of the competitiveness of countries and regions

Country's competitiveness is a relative value that needs to be constantly re-development of competitiveness compared with other countries and regions 2) and it is important to know that among the main indicators of competitiveness is the Global Competitiveness Report, which is published by the World Economic Forum. The indicator is growth competitiveness index (Growth Competitiveness Index, GCI), which was created by J. Sachs and J. McArthur, which primarily assesses the macroeconomic aspect and try to capture the dynamic nature of the economy and predict the future nature of the country's sustainable growth over the next five years that reflects the quality of the overall framework of economic activities (Stodůlková – by Schwab, 2010, p. 4).

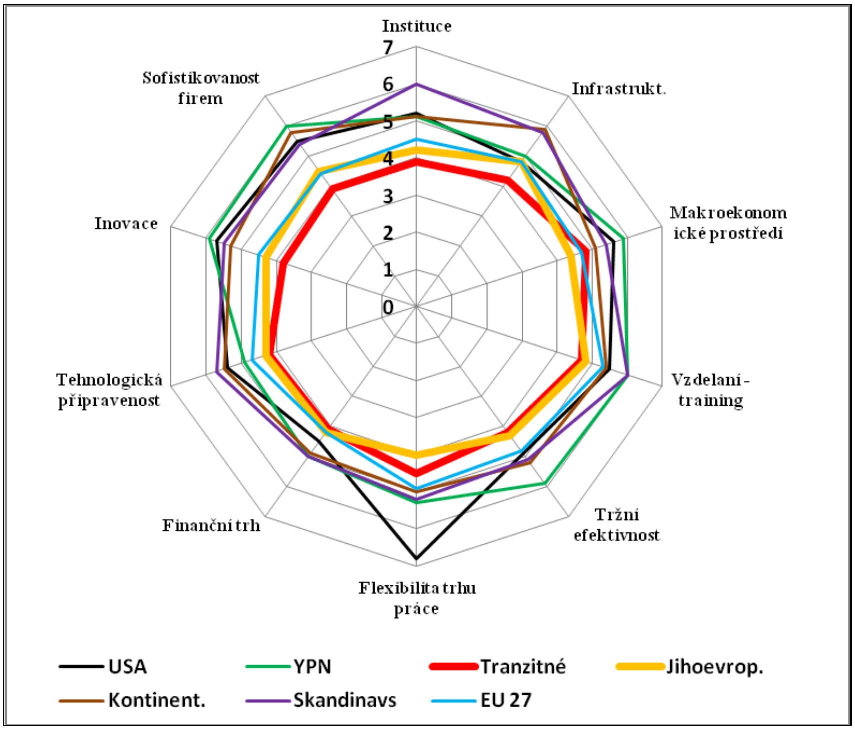
Another very widespread indicator of competitiveness is the World Competitiveness Yearbook published by the International Institute for Management Development in Lausanne. It not only provides a comprehensive picture of the competitiveness of the countries examined, but also setting out the Golden Rules of Competitiveness (Garelli, 2006, p. 8). Total index is 315 on the basis of competitive criteria, which are divided into four groups (the economic performance, government efficiency, business efficiency and infrastructure). For example, "Golden Rules of Competitiveness by Garelli":

1. Create a stable and predictable legislative environment.
2. Create a flexible economic structure.
3. Invest in traditional and technological infrastructure.
4. Promote private savings and domestic investment.
5. Create an active strategy in international markets and their attractiveness to foreign investment.
6. Focus on quality, speed and transparency of government and bureaucracy.
7. Relationship between the level of wages, productivity and the rate of taxation.
8. Maintain the social system by reducing wage disparity and strengthening the middle classes.
9. Invest in education, particularly in secondary and lifelong education.
10. Even in light of the proximity of the economy market (economies of proximity) and globality (Garelli, 2006, p. 20) and keep the value system of society.

Principles of global competitiveness (Garelli, 2006, p. 14) can be described as economic performance, government flexibility, Flexibility business environment and infrastructure. Besides these, there are some Annual Report´s focusing for a specific Region. The key is generated again Lisbon Review World Economic Forum and the European Competitiveness Report published by the European Commission. The yearbook of the competitiveness of the European Union in the context of the Lisbon strategy, its approach is evaluated on the basis of structural indicators, Eurostat publishes regularly 5). We meet with various indicators and statistics and it is clear that the concept of globalization is difficult to grasp. At the same time view of globalization and in particular on its causes, manifestations and consequences are different parts of the world.

Not in relation to cooperation over approx. 530 million EU citizens, this represents approximately 7.3 % of the world population and EU in 2010, over 21 % of total world product at purchasing power parity (Eurostat, 2011). The competitive advantages of individual countries are highly diversified. Comparing countries based on eight dimensions that correspond to the Lisbon Strategy (European Commission). The highest achievable score of each dimension takes a value of (Jeniček, 2002). Smaller the diamond the country, the less within the limits of competitive factors. Globalization is the process is so complex that manifests itself very differently (sometimes with opposite results) depending on the conditions in which it is applied.

Figure 1: Comparison of models of market economies in the EU regions with the U.S. and Japan. Comparing countries based on ten factors



Source: Schwab, 2010: 18-22, own processing graph; Blanke, Kinnock, 2010, p. 21

Generally speaking, the European Union (mainly EU-15) has a comparative advantage in machinery, chemical industry and production of luxury goods (Grilo, Koopman, 2006, p. 75). The business environment in the EU compared to other parts of the world more stable, predictable and enforceable contracts are better. While the tax burden in the EU in 2009 exceeds 40% of GDP in the U.S. only 25% of GDP *(OECD 201: 19)* and the public debt to GDP in the EU average of 80.1% for the year 2010-Eurostat data). This may be due to generally greater risk aversion in Europe manifested in the setting of social systems or interventions in labor markets, which has an impact on the economy and national economic competitiveness.

On the other hand, we could in many EU countries to identify a number of weaknesses of the economy from the qualification gap, which extends mainly in information technology, insufficient use of the potential labor force, the existence of too rigid labor laws, which means high costs for the activities of small and medium-sized enterprises, the high tax burden and too little investment in research activities. There are also many bureaucratic obstacles. A general feature of European economies is an important role of the state (Studůlková: 2010).

In my view the EU as a whole does not have a problem with a lack of competitiveness, it is rather the individual states (particularly transit and southern Europe), which her face. Selected economies under comparison, the U.S. and Japan, we cannot be regarded as clearly more competitive, because many European countries such as Sweden, Finland and Denmark, reaching in total and partial evaluation of the competitiveness and better results. We must also take into account the fact that competitiveness depends to some extent on the definition of this term and how to measure.

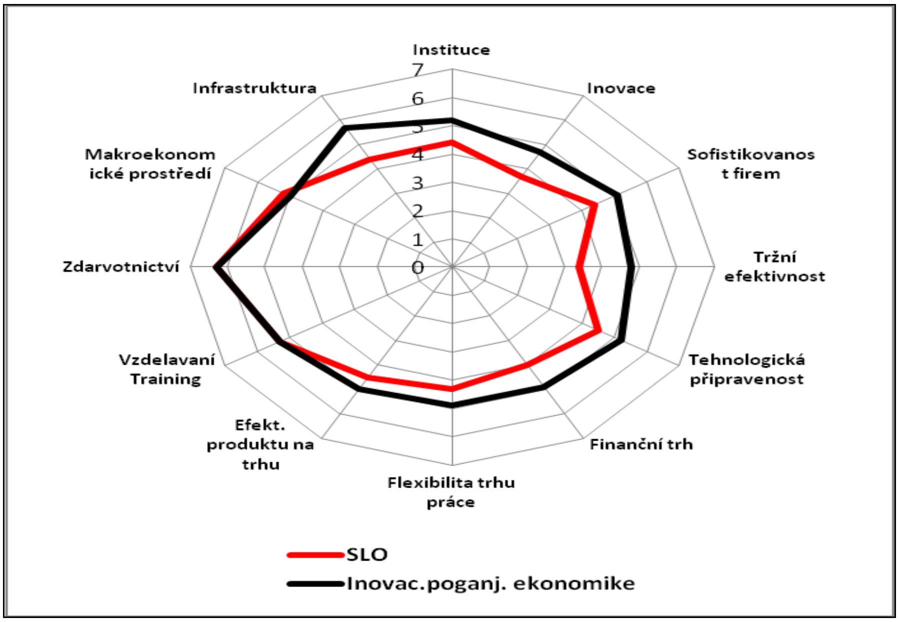
For example, the EU's economic growth is lower than in the U.S. and Japan, and unemployment has long maintained a higher level. Europe is also characterized by very high taxation and generous social system inhibiting growth dynamics. The EU also achieves worse results than the U.S. on technology, innovation, quality and education institutions, enterprises or sophistication. What they have in common is the issue of debt, such as the EU - in particular the euro area has a huge problem of re-indebted Greece, debt from South Region *(Italy, Spain, Portugal)* and Transit countries *(Hungary, Bulgaria, Romania, Slovenia)*. This means that countries which can, in fact, referred to as the countries with problems of competitiveness, the country is mainly Southern European model with transition economies.

For example, the southern wing faces in comparison with the above models, indicating a lack of productivity, lower quality education system, while high wages. The economic crisis was reflected in the form of high unemployment rate (not just in the general unemployment rate, but also for example, unemployment among young people, such as Spain, Italy, Portugal and Greece), there remains a large difference between the employment of women and men. Country Southern European model also cannot improve its position in the global competitiveness before solve problems with government deficits and growing public debt.

For the least competitive economies of the European Union in terms of competitiveness rankings can identify new members. These economies, which have undergone a recent transformation, during the period amounted to dynamic growth, but were significantly affected by the economic crisis *(especially the Baltic states, even though these states are characterized by good fiscal policy and low debt)*. The labor market is more rigid and less sophisticated business environment.

Countries belonging to the transition economies must continue to focus on improving the basic factors of competitiveness such as infrastructure or quality of institutions where lagging behind other European countries.

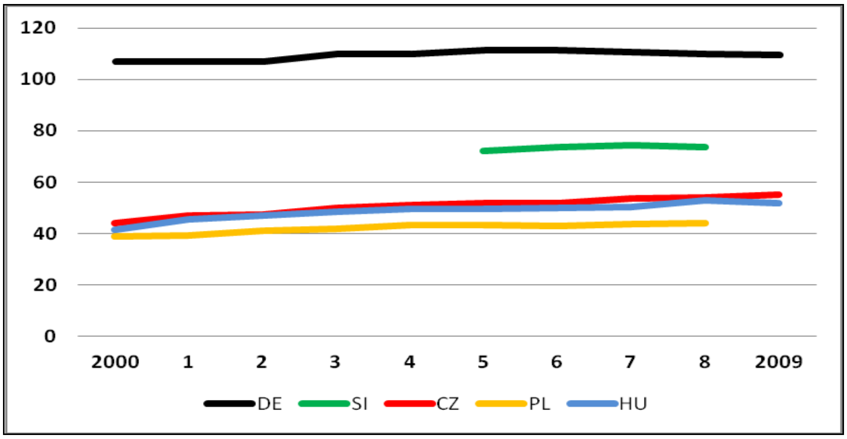
Figure 2: Comparison of models of Slovenia and the EU market economies, the U.S. and Japan (Comparison of countries based on twelve factors)



Source: WEFORUM

Another example is the comparison of labor productivity in the economy measured by GDP to 1 hour between the various EU member states on the basis of the graph we see that the economy of Slovenia, the Czech Republic, Poland and Hungary on the basis of lagging productivity in the economy measured by GDP for 1 hour behind Germany, which also identifies the competitiveness of the economy.

Chart 3: Labor productivity in the economy measured in GDP for 1 hour, EU15 = 100



Source: WEF, Global Competitiveness Report, 2006-2010, in 2011Geneve

Table 1: Competitiveness of selected states based on the WEF report

Stát	2010/11	2009/10	2008/9	2007/8	2006/7
CH	**1**	**1**	**2**	**2**	**4**
USA	**4**	**2**	**1**	**1**	**1**
DE	**5**	**7**	**7**	**5**	**7**
CZ	36	31	33	33	31
SI	45	37/52*	42	39	40
SK	60	47	46	41	37
HU	52	58	62	47	38

Source: WEF, Global Competitiveness Report, 2006-2010, in 2011Geneve***** Data for 2009, reference: IMD World Competitiveness Yearbook, ČTK

From these data we can conclude that the efficiency of the labor market in Slovenia, for example, is very low and the competitiveness of the 80 seats in 2010/2011 (Czech Republic is in 33rd place), and the flexibility of the financial market is on 77th location data by WEF competitiveness. Labour productivity in the economy (GDP measurement for 1 hour, E15 = 100), Slovenia lags behind the German index for 49 points! According to Eurostat data, Slovenia lags on labor costs for 1 hour in the economy in the Czech Republic for 47 index points. According to GDP (per capita), the PPS (Purchasing Power Parity) according to Eurostat data for Slovenia is lagging behind German for 37 points (Weforum).

For example, the development of the Czech economy slows down inefficient state Agencies, courts or the lack of infrastructure which is important for other transit countries. These challenges will generate additional pressures for structural change across Europe. Some regions of Europe are likely to benefit, while others may lose a lot of (Sametzki, 2009).

Europe faces a number of long-term challenges that will have a profound impact on the process of European integration in the coming years and decades. Global economic integration and interdependence, the rise of China, Brazil and India as economic powerhouses in the field of competition and knowledge-based economy, European companies will be the big test. At the same time need to incur high capital expenditure to combat climate change, to diversify energy sources and supplies, increasing energy savings, demographic changes and their impact on public finances and growth potential solution to rising unemployment and the risk of poverty and social exclusion will still increasing extent, shape the policy agenda.

There is a consensus that the European Union should modernize its budget to cope with new challenges and should move away from bureaucratic inertia and the logic of "juste retur" which so far prevented any change. For example, Nobel laureate in economics Paul Krugman warns that stifled government spending may cause further havoc. But now, after the Greek problems and huge debts in many countries and advises rather save that Krugman sees the problem.

So is the problem of the current account deficit South wings. At the same time the country of South Region-wings *(between the included Slovenia)* Eurozone gradually losing price competitiveness. Competitiveness in terms of real exchange rate monetary ¬ in these countries during the five years lost an average of nearly more than 20%. Course of a single currency, which was for these countries, is too strong, consequence is weakening export and they give him vice versa supporting imports. The result was a gradual increase in current account deficit. The overall Eurozone current account was permanently Although you ¬ planed, so that pressure on the euro as a currency not ¬ set in, but thanks to current account **surpluses of Germany with the support of France and Benelux. Were it not for membersh**ip in the Eurozone , it is very likely that current account deficits in some countries led to pressure on the exchange rate is likely several years ago. In Spain, the current account deficit about since 2004 consistently above the level of risk accepted in although the emergence of the Eurozone had a current account this economy you almost ¬ straightening. In the pre-crisis year of 2007 was Spanish current account deficit of almost 10% of GDP. A similar jump recorded a current account deficit after 1999, and Greece, where the deficit climbed to within eight years from 7 to 14%. Rapidly deteriorate after 2000/1 and external balance of Ireland, where the current account deficit in 2007 exceeded pre-crisis also critical 5%. Persistent deficits of around 10% also showed Portugal (Zamrazilová, 2012). The current account deficit is not from the macroeconomic standpoint ¬ nothing more than the difference between domestic savings and investments. This imbalance can accumulate no economy long ¬ time without negative consequences. Common ¬ me new policy to prevent these countries to correct the standard monetary policy instruments - exchange rate depreciation or increases in interest rates him or a combination of their combinations. The euro was to maintain external balance and inflation in these countries too strong and the monetary rates too low.

What about the EU. Promotes knowledge and innovation as the basis for European works specified in the goals of Europe 2020 "by enhancing the competitiveness of European economy (telecommunications , services, energy, new environmental technologies for sustainable development - to promote more competitive and greener economy more resource efficient " and adequately respond to globalization and economic crisis, *(Fontaine:2010, p.48-49).* Support will be 35 privatization projects (goal: helping to transform the economy and reduce unit labor costs by 15 %). The EU must modernize if it wants to compete with Europe's economy the U.S. does, India or longer countries.

Some Longer terms of competitiveness issues in some countries EU is in corporate taxes. It is empirically shown that Ireland has one of the lowest corporate taxes in the EU at 12.5%, were collected prior to the crisis in relation to GDP, more than Germany, with a rate of 25% (in 2012, Germany with 15% of corporate taxes significantly and Irish Cyprus closer) and it is good for the competitiveness of German companies and even then is the second largest exporter in the world. Others such as the problem is in some transit countries, Czech Republic, Slovenia, Bulgaria and in some southern European countries especially Greece. We see the increasing tendency of corporate and consumer taxes and that's dangerous, because government revenues will decline significantly because entrepreneurs and their companies pay taxes to move abroad - to tax havens, the Netherlands and Cyprus, and this is repeated every year. Longer case concerning the competitiveness of the EU and the U.S. budget deficit where she reached in 2011 in the U.S. 10% of GDP in 2012 due to cuts reduced to 8.5%.

3. Conclusion

In Europe's competitiveness is largely required to complete the single internal market. And it still fails. People in Western Europe have come to the state is obliged to take care of them. In the long term is to ignore the principle that the people and States may spend less than you earn. To maintain the competitiveness of the EU must act wisely and strive for collective action. Individual countries must be able to me some independence. The EU follows the U.S. in fact. On the one hand, the necessary austerity measures, as necessary, however, create conditions for further growth. What would be if we left Greece to repay all its debts, should also undergone transformation, which would make him a future long-term competitive country.

What exactly does not work in terms of competitiveness watched by a global context and what is wrong. Simple, the current system of national economic development is unsustainable in the EU (debts, the concentration of power, pension systems, mutual assistance, the process solving, the financial crisis, urban and ecological perspective). For all it is obvious that today's institutions, if the thread in a few decades into the future, show signs of collapse. According to Martin Wolf, Financial Times commentator today's issue *(Sedlaček:2012)* macro- financial instability, (crazy to invest in times of growth and saving madly in times of downturn), the inability of state institutions suppress the disease , inequality in wages and valuation issues work, ownership and management structures , tax issues and unhealthy intersection of money and power and the globalization of public goods (how to care together for a common ground), and in my opinion, the high unemployment of young peoples.

Solution: The new Marshall Plan for the EU, public support for export enterprises, the EU financial support for businesses and unemployment (structural funds, etc.).

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Use of Multivariate Methods for Disparities Evaluation in Visegrad Four Countries in Comparison with Germany and Austria

Lukáš Melecký, Eva Poledníková
VŠB – Technical University of Ostrava
Faculty of Economics, Department of European Integration
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
lukas.melecky@vsb.cz, eva.polednikova@vsb.cz

Abstract
There are many opinions and methods of measurement and evaluation of disparities between states or regions at national and European level. The methods differ in structure of using the indicators of disparities and ways of their processing. The cluster analysis is a specific method that is appropriate for evaluation of disparities and represents one of the multivariate statistical methods. The main goal of the paper is to classify the Visegrad Four Countries (Czech Republic, Hungary, Poland and Slovakia) to homogeneous units (clusters) in comparison with Germany and Austria according to the similarity of selected indicators of economic, social and territorial development and evaluate the level of disparities in reference period 2000-2010 with focus of three milestones years (2000, 2005 and 2010). The theoretical part of the paper focuses on selected methods of the disparities measurement and evaluation. The empirical part of the paper deals with the evaluation and comparison of disparities in the Visegrad Four Countries, Germany and Austria by cluster analysis.

Keywords: *Austria, Cluster analysis, disparities, Germany, multivariate methods, Visegrad Four Countries*

JEL codes: *C83, R11, Y10*

1. Introduction

Disparities measurement and evaluation at any level of territorial development is associated with the lack of integrated approaches and methodologies in the European Union (EU). More sophisticated methods that can contribute to disparities measurement and evaluation represent *multivariate methods*. To multivariate method belongs also *cluster analysis*, which identifies groups of objects that are very similar and assign them into clusters (Mooi, Sarstedt, 2011). Within this paper, the application of cluster analysis is introduced in the topic of disparities in the Visegrad Four (V4) countries, i.e. Czech Republic, Hungary, Poland and Slovakia in comparison with Germany and Austria.

The aim of the paper is to classify V4 countries, Germany and Austria to the optimal number of the homogeneous clusters according to the similarity of the selected economic, social and territorial indicators in the period 2000-2010. The theoretical part of this paper focuses on the characteristic of the multivariate methods as a possible approach for disparities measurement and evaluation. The empirical part of the paper is devoted to the application of cluster analysis in the case of V4 countries, Germany and Austria. For elaboration of the practical part of this paper, the software *PASW Statistics 18* and the table processor *Microsoft Office Excel 2007* has been used. The European Statistical Office (Eurostat) served as a basic database of indicators of economic, social and territorial disparities.

2. Selected methods of disparities measurement and evaluation

In the current regional practice, the methods based on *inter-regional comparison* or *mathematical and statistical methods* are often used. Among disparities assessment methods can be namely included (Kutscherauer et al., 2010, p. 56): interregional comparison method; methods utilizing Geographical information system; variability level (e.g. standard deviation and variation coefficient); multivariate statistical methods (e.g. method of main components and factor, cluster or discrimination analyses); simplistic models; method of real convergence; modified territorial Gini coefficient or method of artificial neuron nets.

2.1 Multivariate statistical methods

Multivariate analysis is an ever-expanding set of techniques for data analysis that encompasses a wide range of possible research situation. The dependence techniques and independence techniques can be distinguished (Hair, Black, et al., 2009).

Dependence techniques may be defined as one in which a variable or set of variables is identified as the dependent variable to be predicted or explained by other variables known as independent variables (Hair, Black, et al., 2009, p. 15-16). An example of dependence technique is multiple regression and multiple correlation multiple; discriminant analysis and logistic regression; canonical correlation analysis; multivariate analysis of variance and covariance etc.

Independence techniques make no differences between dependent and independent variables. The emerging independence techniques include the following, e.g. (Hair, Black, et al., 2009, p. 16): principal components and common factor analysis; cluster analysis and correspondence analysis.

Factor analysis, including the principal components and common factor analysis, is the statistical approach that can be used to analyze interrelationships among a large number of variables and to explain to explain these variables in terms of their common underlying dimensions (factors) (Hair, Black, et al., 2009, p. 17). The objective of factor analysis is to reduce the number of variables by grouping them into a smaller set of factors.

Correspondence analysis is a recently developed technique that enables the perceptual mapping of object on a set of nonmetric data. The basic form of correspondence analysis is based on the contingency table which then transforms the nonmetric data to a metric level and performs dimensional reduction and perceptual mapping (Hair, Black, et al., 2009).

Cluster analysis is a group of multivariate method whose primary purpose is to group objects based on the characteristics they possess. Cluster analysis classifies objects that are very similar to others in the cluster based on a set of selected characteristics. The resulting cluster of objects should exhibit high internal (within-cluster) homogeneity and high external (between-cluster) heterogeneity (Hair, Black, et al., 2009, p. 600). There is several clustering procedure how to form the groups of objects. The most popular procedures represent the *hierarchical methods* and *nonhiearchical methods*[38]. Each of procedures follows a different approach to grouping the most similar objects into a cluster and to determining each object's cluster membership (Mooi, Sarstedt, 2011). The hierarchical cluster analysis (agglomerative or divisive) is one of the most obvious methods. It uses the dissimilarities such as distances between objects when forming the clusters. The distance is mostly defined as *Euclidean distances* or the *Squared Euclidean distance* suitable for categorical variables, but there are my other specialized measures, e.g. for binary variables. After the determination of the distance measure, the clustering algorithm has to be selected. There are many methods available, the criteria used differ and hence different classification may be obtained for the same data (Burns, Burns, 2008, p. 557). The most frequently used methods are: nearest neighbour (single linkage), furthest neighbour (complete linkage), average linkage with (between) groups, Ward´s method, centroid method, median method. The last step of the cluster analysis is interpretation of the results. The most important is to select the cluster solution that the best represent the data sample. To define the characteristics of the cluster, it is appropriate to analyse the profile of cluster´s variables.

3. Application of cluster analysis in the case of selected disparity indicators in V4, Germany and Austria

The selection of indicators results from the concept of regional disparities evaluation in the EU. For cluster analysis, it was selected **24 indicators**[39] that represent the most frequently indicators of economic, social and territorial disparities used in *Reports on Economic, Social and Territorial Cohesion* (European Commission 2007, 2010), some of them represent also the *EU Structural indicators*. All of these indicators are available in Eurostat database and are presented in following Table 1.

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[38] The *hierarchical methods* start with each case as a separate cluster and then combines the clusters gradually, reducing the number of clusters at each step until only one cluster is left. In the last step, all objects are combined together as one cluster. The *nonhierarchical methods* are based on the identification of starting points, known as cluster seeds for each cluster. Then it is assigned each observation to one of the cluster seeds based on similarity within the group (Hair, Black, et al., 2009).

[39] Each type of disparities – economic, social and territorial is covered by the 8 indicators. We assume that the selected economic, social and territorial characteristic have the same weight in the territory development and achieving the cohesion.

Table 1: Selected indicators of regional disparities

Type of disparities	Indicator	Abbreviation
Economic disparities	GDP per head (Purchasing Power Standards per inhabitant)	GDP
	Disposable income of households (Purchasing Power Standard per inhabitant)	DI
	Labour productivity (% GDP per person employed in PPS, EU27 = 100)	LP
	Gross fixed capital formation (Purchasing Power Standard per inhabitant)	GFCF
	Gross domestic expenditure on research and development (GERD) (% of GDP)	GERD
	Patent applications to the European Patent Office (EPO) (Number per million of inhabitants)	EPO
	Human Resources in Science and Technology (% of active population)	HRTS
	Employment in technology and knowledge-intensive sectors (% of active population)	ETKI
Social disparities	Employment rate (% of population aged 15-64)	ER15to64
	Employment rate of older workers (% of population aged 55-64)	ER55to64
	Employment rate of woman (% of woman population aged 15-64)	ERw15to64
	Unemployment rate (% of labour force aged 15-64)	UR15to64
	Unemployment rate of youth (% of labour force aged 15-24)	URy15to24
	Long-term unemployment (% of labour force)	LtUR
	Employment rates by highest level of education attained- first and second stage of tertiary education	Ereduc
	Total public expenditure on education	Texp
Territorial disparities	Greenhouse Gas Emissions (Thousands of tonnes,CO2 equivalent)	GGE
	Energy intensity of the economy (Kilogram of oil equivalent per 1000 euro)	EIE
	Electricity generated from renewable sources (%)	EGRS
	Municipal waste generation and treatment (Kg per capita)	MWGT
	Density of motorway (Km/1000 km^2)	DM
	People killed in road accidents (Number of deaths per million inhabitants)	PKRA
	Infant mortality rates (%)	IMR
	Volume of freight transport relative to GDP (Index (2000=100))	VFT

Source: European Commission, 2007, European Commission, 2010; own elaboration

Because of the *correlation* it was necessary to *remove nine indicators*[40] from the follow up analysis: Disposable income of households, Labour productivity, Gross domestic expenditure on research and development, Employment rate of woman, Unemployment rate of youth, Long-term unemployment, Municipal waste generation and treatment, Density of motorway, Volume of freight transport relative to GDP. **The final input matrix** for cluster analysis is created by 5 economic indicators, 5 social indicators and 5 territorial indicators in the reference period 2000-2010.

[40] The Pearson Correlation Coefficient of these variables achieved the value above 0.8.

To meet the assumptions of the correct implementation of the multivariate statistical analysis, the attention should be paid to the *characteristic and quality* of *data file*. On the basis of descriptive statistics, the significant differences between V4 countries, Germany and Austria exist within the economic indicators especially EPO, HRTS, ETKI and the territorial indicators GGE and EGRS, in the years 2000, 2005 and 2010.

Table 1 in Appendix shows, that in the year 2000, the number of patent application per million of inhabitants (EPO) ranged from the 1.12 (minimum) to 269 (maximum). This indicator shows the high level of variability according to the *coefficient of variation*. Although the coefficient of variation of EPO and also HRTS, ETKI has decreased in the year 2005 and 2010, the value has exceed 50 % that indicates the heterogeneity of the file, see Table 2 and Table 3 in Appendix. The high level of variability reached the *territorial indicators GGE and EGRS*. The mean is not appropriate measure of the data evaluation and file is heterogeneous. The positive development is recorded in the *social indicators*. In the end of reference period, the average rate of employment has increased and the rate of unemployment has reduced in comparison with the year 2000. According to the coefficient of variation of the social indicators, the file is homogeneous and without outliers.

According to characteristic of the *skewness* in the years 2000 and 2005, the data distribution is mostly *right–skewed*. The characteristic of *kurtosis* mostly implies the leptokurtic distributions.

Within indicators of HRTS, ETKI, GGE and EGRS were detected *the outliers* (Germany, Austria). Nevertheless, outliers have not been removed from the subsequent cluster analysis due to possible disruption of the actual structure of the analyzed file.

3.1 Results of cluster analysis

The *first step* of cluster analysis is to select the *criterion of similarity* (dissimilarity) of the objects. As a measure of dissimilarity was selected the *Squared Euclidean Distance* which is the most used one[41] and it is basis of the *Ward´s method*. On the basis of the Proximity Matrix in Table 2, the highest differences in the year 2000 exist between Slovakia and Germany (55,423). The lowest distance is recorded between Hungary and S1ovakia (11,165). In the year 2005, the distance between Germany and Slovakia reduced on the 49,314 and between Hungary and Slovakia on the 5,334. However, the rate of dissimilarity between Germany and Slovakia was again increased in the 2010 (62,544). The positive development can be seen in the case of differences between Hungary and Slovakia, where the distance was decreased (8,477).

[41] The higher values of the distance represent more dissimilarity of cases.

Table 2: Proximity Matrix (year 2000)

Case	Squared Euclidean Distance					
	1:Czech Republic	2:Hungary	3:Poland	4:Slovakia	5:Germany	6:Austria
1:Czech Republic	,000	19,486	15,304	16,839	35,364	26,239
2:Hungary	19,486	,000	11,223	11,165	44,218	39,769
3:Poland	15,304	11,223	,000	11,659	41,467	40,384
4:Slovakia	16,839	11,165	11,659	,000	55,423	44,251
5:Germany	35,364	44,218	41,467	55,423	,000	37,207
6:Austria	26,239	39,769	40,384	44,251	37,207	,000

Source: Own calculation and elaboration, 2012

Table 3 *Agglomeration Schedule*, provides the information about the hierarchical clustering process based on *Ward´s method*.

Table 3: **Agglomeration Schedule (year 2000)**

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	2	4	5,583	0	0	2
2	2	3	11,349	1	0	3
3	1	2	21,419	0	2	5
4	5	6	40,023	0	0	5
5	1	5	75,000	3	4	0

Source: Own calculation and elaboration, 2012

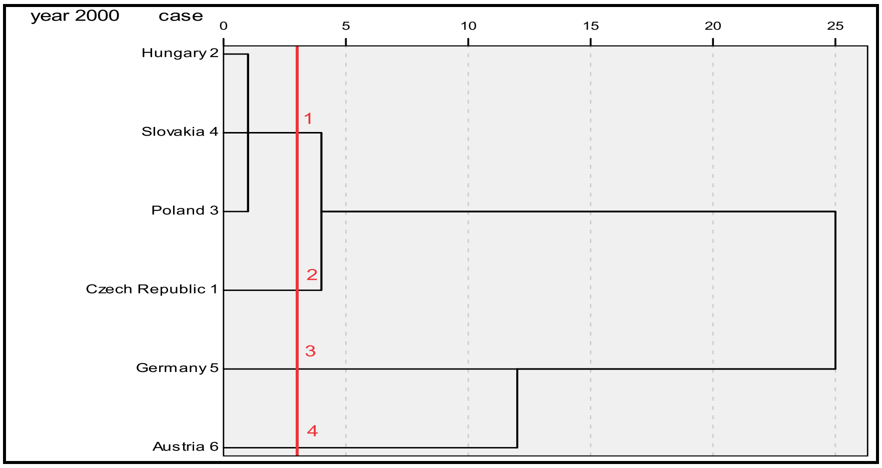
The column *"Coefficients"* helps us to decide how many clusters are optimal for representation of the data. In this case, the cluster formation should be stop when the increase in the *Coefficients* is large. In this case, the best interpretation of data ensures **four-cluster solution** in the year 2000, as well as in the years 2005 and 2010.

Cluster I represents only the *Czech Republic*. The separation of this cluster from **Cluster II** including *Hungary, Slovakia and Poland*, implies the visible differences between V4 countries. **Cluster III** represents only *Germany* and **Cluster IV** is created by *Austria*. The significant disparities can be noticed between Germany and Austria on the one side and Visegrad Four countries on the other side. *The four - cluster solution has remained the optimal solution* also in the year 2005 and 2010. In the year 2005, the structure of the clusters is identical to the clusters in the year 2000.

The **cluster membership was changed** in the year 2010. **Cluster I** comprises of the *Czech Republic* and *Slovakia*. Cluster II is created by *Hungary and Poland.* **Cluster III** represents *Germany* and **Cluster IV** is characterized by *Austria*.

The *graphical representation* of distance between which clusters are combined is *Dendogram*. The gradual clustering of the V4 countries, Germany and Austria and the final optimal number of the determined clusters in the year 2000 is shown in example of dendogram in Figure 1.

Figure 1: Dendogram using Ward Linkage (year 2000)



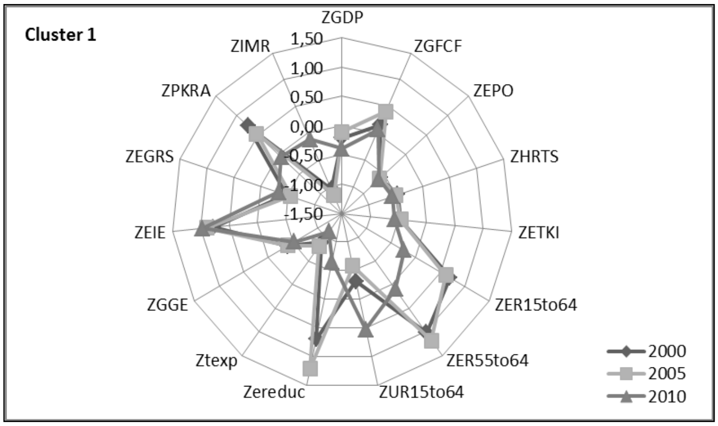
Source: Own calculation and elaboration, 2012

3.2 Interpretation of the clusters profile

To easier interpretation of the determined clusters and comparison of their basic characteristics, it is appropriate to construct the *profile of cluster*. The profile of each cluster is based on the mean value of the standardized indicators (variable).

Cluster I represents only the *Czech Republic* in the year 2000 and 2005. Cluster I is separated from other Visegrad countries that implies the disparities between Czech Republic and Hungary, Poland, Slovakia. Cluster I is characterized by the *higher economic performance* than Cluster II achieves, sufficient development of the labor market and good territorial cohesion. As can be seen in Figure 2, the Czech Republic recorded the positive development of all indicators in the period 2000-2005. Due to change of the cluster membership in the year 2010, the negative development of the indicators, especially economic and social indicators has been recorded.

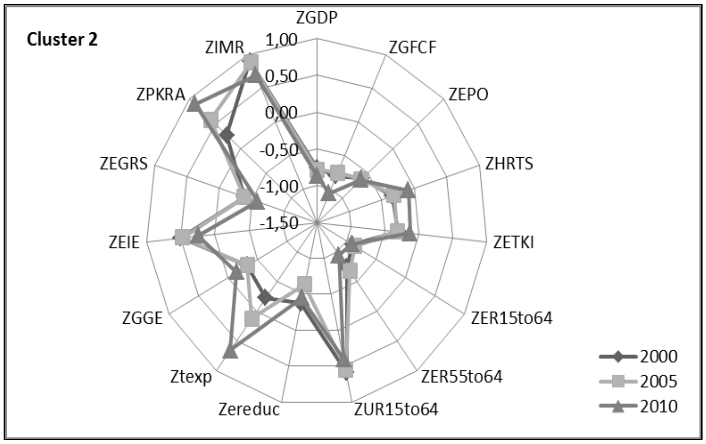
Figure 2: Profile of Cluster 1 (mean of the standardized variables)



Source: Own calculation and elaboration, 2012

Cluster II including *Hungary, Poland and Slovakia* in the year 2000 and 2005, can be considered as a cluster with *the lowest degree of economic performance*, biggest problems at the labour market and low rate of territorial cohesion. The positive development between years 2000-2005 is noticed in increase in gross fix capital formation, human resources in science and technology, rate of employment and in decrease in energy intensity of economy. Cluster II has remained the worst evaluated cluster also in the year 2010 after the change of cluster membership. Slovakia was combined with the Czech Republic to Cluster I in the year 2010 that can indicates the drop in disparities between countries.

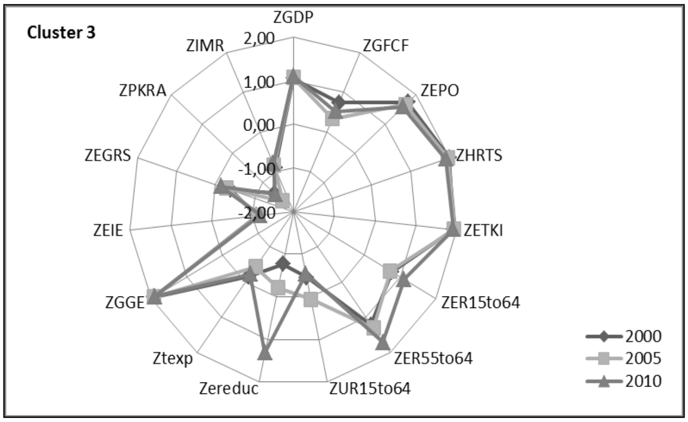
Figure 3: Profile of Cluster 2 (mean of the standardized variables)



Source: Own calculation and elaboration, 2012

Cluster III including only *Germany* is characterized by a *very good economic prosperity and the innovative capacity* that has risen since the year 2000. The disparities in the innovation area are visible for the all reference period, especially between Germany and Cluster I and Cluster II. As it is noticed in Figure 4, Cluster 3 also achieves the high level of social cohesion that is defined by the increase in rate of employment and decline in rate of unemployment in the reference period. Cluster III had the biggest problems in the area of environment. Compared to Cluster 4, Germany featured the highest level of greenhouse gas emission and energy intensity and on the other hand the lowest rate of electricity generated from renewable sources in the year 2000. In the end of the period the positive development of environmental indicators was recorded.

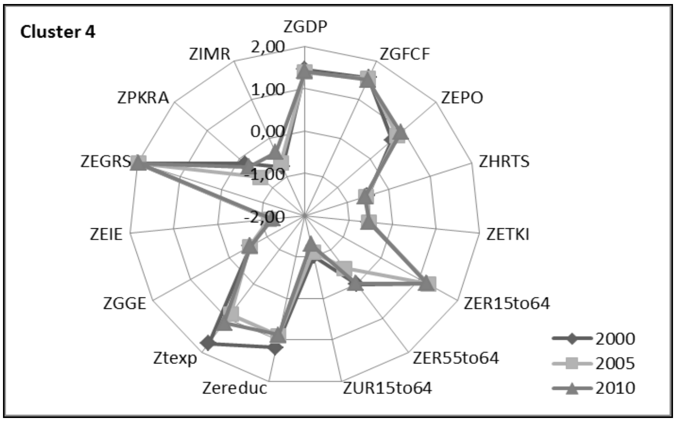
Figure 4: Profile of Cluster 3 (mean of the standardized variables)



Source: Own calculation and elaboration, 2012

Cluster IV represents only *Austria*, is distinguished by the *high level of the living standard* which is characterized by the highest value of GDP per head (in PPS) in comparison with the other three analysed clusters. Cluster 4 achieves the best results also in the indicators of GFCF and EPO. As the Figure 5 shows, the mean value of the standardized GDP, GFCF, EPO slightly increased in the year 2005 and 2010 in comparison with the year 2010. Cluster 4 is characteristic by the highest level of social cohesion in the comparison with other cluster. According to Figure 5, in the end of the reference period the rate of employment has increased and the rate of unemployment has reduced. The positive development during ten years has been recorded in territorial cohesion, when the security on roads has increased (number of people killed in the road accident has reduced in 2010) and the infant mortality has reduced. Although the energy intensity has reduced since the year 2000, the electricity generated from renewable sources has decreased and greenhouse gas emissions have risen.

Figure 5: Profile of Cluster 4 (mean of the standardized variables)



Source: Own calculation and elaboration, 2012

4. Conclusion

Cluster analysis is a technique for the classifying a large number of information into meaningful subgroups, called clusters. The clustering allows us to identify homogenous groups of objects and to determine what in our sample belongs to which group. On the basis of Ward’s method applying the Squared Euclidean Distance, the *optimal four-cluster solution has been determined* in the study of V4, Germany and Austria disparities in the reference period 2000-2010. The four cluster solution indicates the disparities between V4 countries on the one hand and Germany and Austria as more developed states on the other hand. These socio-economic disparities have persisted since the year 2000.

It is necessary to take it account that the informative level of the acquired results of cluster analysis is always influenced by the characteristic of the data file (e.g. occurrence of the outliers, correlation of variables), by the selected number and type of the indicators, as well as by the selected technique of the clustering, criterion of the distance and algorithm (method) of the clustering. On the other hand, multivariate statistical methods represent a specific tool that is eligible to concentrate the information and detect the relationship and coherence between them. Therefore the multivariate statistical methods offer the great research´s potential.

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Appendix

Table 1: Descriptive statistics (year 2000)

Indicator	Mean	Median	Std. Deviation	Variance	Minimum	Maximum	Range	Coefficient of variation	Skewness	Kurtosis	Percentiles		
											25	50	75
GDP	15000,00	11900,00	7000,00	49000000,00	9200,00	25100,00	15900,00	46,67	0,85	-1,60	9425,00	11900,00	23075,00
GFCF	3666,67	3200,00	1557,78	2426666,67	2200,00	6100,00	3900,00	42,48	0,76	-0,90	2425,00	3200,00	5125,00
EPO	73,06	9,14	111,71	12478,54	1,12	269,00	267,88	152,89	1,44	0,90	1,84	9,14	178,18
HRTS	1471,83	450,50	2209,46	4881731,77	189,00	5875,00	5686,00	150,12	2,22	4,98	300,75	450,50	2614,75
ETKI	10829,63	4238,51	13233,16	175116481,58	2083,05	36273,97	34190,92	122,19	1,93	3,60	3277,91	4238,51	19919,18
ER15to64	60,90	60,60	5,73	32,83	55,10	67,90	12,80	9,41	0,12	-2,85	55,70	60,60	65,95
ER55to64	29,18	29,10	6,74	45,49	21,50	37,40	15,90	23,11	0,04	-1,80	21,80	29,10	36,43
UR15to64	10,63	8,40	5,81	33,81	4,70	19,10	14,40	54,68	0,79	-1,37	6,13	8,40	17,23
Ereduc	84,10	84,35	1,43	2,05	82,00	85,80	3,80	1,70	-0,43	-1,13	82,75	84,35	85,28
Texp	4,57	4,44	0,67	0,46	3,93	5,74	1,81	14,77	1,14	1,15	3,96	4,44	5,10
GGE	297550,00	113948,00	385451,08	148572534152,80	49203,00	1042071,00	992868,00	129,54	1,96	3,78	69828,00	113948,00	552588,00
EIE	461,60	487,93	268,51	72098,35	140,67	815,40	674,73	58,17	-0,08	-1,43	160,12	487,93	707,15
EGRS	16,74	4,86	27,73	769,18	0,63	72,18	71,55	165,73	2,24	5,12	1,42	4,86	30,20
PKRA	126,33	120,50	25,58	654,27	91,00	165,00	74,00	20,25	0,33	0,18	109,75	120,50	150,00
IMR	6,53	6,45	2,34	5,46	4,10	9,20	5,10	35,77	0,05	-2,97	4,33	6,45	8,75

Source: Own calculation and elaboration, 2012

Table 2: Descriptive statistics (year 2005)

Indicator	Mean	Median	Std. Deviation	Variance	Minimum	Maximum	Range	Coefficient of variation	Skewness	Kurtosis	Percentiles		
											25	50	75
GDP	18533,33	16000,00	6975,86	48662666,67	11500,00	28200,00	16700,00	37,64	0,67	-1,73	13000,00	16000,00	26550,00
GFCF	4033,33	4050,00	1403,80	1970666,67	2100,00	6200,00	4100,00	34,81	0,28	0,36	2925,00	4050,00	5000,00
EPO	84,29	11,98	122,37	14975,43	3,24	288,48	285,24	145,18	1,27	-0,09	5,17	11,98	210,32
HRST	1757,00	557,50	2445,73	5981578,40	267,00	6550,00	6283,00	139,20	2,08	4,31	411,75	557,50	3250,00
ETKI	10892,87	4329,38	13286,74	176537407,19	2214,68	36597,32	34382,64	121,98	1,97	3,83	3417,39	4329,38	19700,45
ER15to64	61,05	61,25	6,12	37,48	52,80	68,60	15,80	10,03	-0,13	-1,82	55,88	61,25	66,28
ER55to64	35,38	32,40	7,70	59,36	27,20	45,50	18,30	21,77	0,69	-1,73	29,53	32,40	44,75
UR15to64	11,00	9,65	5,18	26,85	5,20	18,00	12,80	70,04	0,46	-1,77	6,70	9,65	16,73
Ereduc	83,07	83,00	1,26	1,58	81,10	84,60	3,50	1,51	-0,41	-0,03	82,15	83,00	84,30
Texp	4,84	5,00	0,72	0,52	3,85	5,48	1,63	14,93	-0,36	-2,23	4,16	5,00	5,47
GGE	292495,00	118797,50	367474,13	135037233177,20	50087,00	999776,00	949689,00	125,63	1,93	3,65	72143,00	118797,50	540956,75
EIE	414,37	437,65	220,55	48640,89	153,69	681,63	527,94	53,22	-0,19	-1,73	160,55	437,65	629,99
EGRS	16,05	7,24	21,24	451,34	2,64	58,14	55,50	132,36	2,15	4,77	4,00	7,24	26,98
PKRA	111,17	119,50	28,10	789,77	65,00	143,00	78,00	25,28	-0,88	0,25	86,00	119,50	131,00
IMR	5,22	5,20	1,57	2,47	3,40	7,20	3,80	30,15	0,08	-2,44	3,78	5,20	6,60

Source: Own calculation and elaboration, 2012

Table 3: Descriptive statistics (year 2010)

Indicator	Mean	Median	Std. Deviation	Minimum	Maximum	Range	Coefficient of variation	Skewness	Kurtosis	Percentiles		
										25	50	75
GDP	21350,00	18700,00	6741,44	15300,00	30800,00	15500,00	31,58	0,80	-1,68	15675,00	18700,00	29300,00
GFCF	4316,67	4400,00	1324,26	2800,00	6300,00	3500,00	30,68	0,31	-0,78	2950,00	4400,00	5325,00
EPO	92,6300	19,8600	125,55981	6,00	292,11	286,11	135,55	1,141	-,795	7,4775	19,8600	230,5125
HRST	2100,50	684,00	2749,68	348,00	7333,00	6985,00	130,91	1,86	3,23	481,50	684,00	4104,25
ETKI	11619,63	4479,06	14173,28	2316,49	38742,34	36425,85	121,98	1,90	3,43	3415,05	4479,06	21625,27
ER15to64	63,55	62,15	6,82	55,40	71,70	16,30	10,73	0,24	-2,07	57,95	62,15	71,25
ER55to64	42,58	41,45	8,82	34,00	57,70	23,70	20,71	1,02	0,97	34,30	41,45	49,30
UR15to64	9,07	8,55	3,48	4,50	14,40	9,90	38,37	0,39	-0,11	6,53	8,55	12,00
Ereduc	81,88	81,85	3,65	77,80	86,70	8,90	4,46	0,11	-1,73	77,95	81,85	85,50
Texp	4,66	4,77	0,68	3,63	5,43	1,80	14,63	-0,52	-0,99	4,04	4,77	5,24
GGE	282442,84	112584,00	355105,35	46468,67	960227,67	913759,00	125,73	1,87	3,35	65442,17	112584,00	533326,42
EIE	354,87	396,83	172,86	138,40	530,76	392,36	48,71	-0,51	-1,88	147,56	396,83	519,54
EGRS	18,3567	10,2750	22,42531	4,53	62,87	58,34	122,16	2,163	4,867	5,2950	10,2750	28,1975
PKRA	71,17	70,00	18,68	45,00	102,00	57,00	26,25	0,51	1,66	59,25	70,00	82,50
IMR	4,33	4,45	1,18	2,70	5,70	3,00	27,25	-0,27	-1,76	3,23	4,45	5,40

Source: Own calculation and elaboration, 2012

Position of WTO within the Current Global Trading System while Focussing on the EU Position

Monika Mrlinová
VŠB - Technical University of Ostrava
Faculty of Economics, Department of National Economy
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
monika.mrlinova@vsb.cz

Abstract
The contribution deals with the position of the World Trade Organisation (WTO) in the current global trading system while focussing on the position of the European Union (EU). WTO provides a framework for the global trade expansion, but its role has been recently quite often criticised and got into shadows of new trends. That happened mostly because of the faster globalization of the world economy which has started the natural process of concentration of economic activities in world economy regions. A good example of this concentration is the creation of one of the most important integrated groupings within the global economy - EU. The European Union applies its own Common Trading Policy, but it plays, in spite of that, a key role also in structures having their objective in trade development at the worldwide level. The objective of this contribution is thus the explanation of the WTO role in the current global trading system, especially the assessment of changes which have taken place since the creation of the WTO's predecessor GATT and of the position of the European Union within WTO.

Keywords: *World Trade Organisation, European Union, Multilateral Trading System*

JEL codes: *F020; F150; F530*

1. Introduction

Globally, there was since 1870 great increase of export to GDP from 4.6 % up to 20.5 % in 2005. The main reason of this growing share of export to GDP was particularly release of duties and rapid decrease of duties imposed mainly on manufacturing products. Those achievements were reached due to subscription of Protocol of Provisional Application of General Agreement on Tariffs and Trade (GATT) in Geneva in 1947 as a provisory agreement until the creation of the International Labor Organization. By the subscription of the GATT was started formulation of multilateral trade system. The process of decreasing of the duties and removing of the trade barriers was realized through rounds of tariff conferences. The multilateral trading system created at first on GATT principles and subsequently on the World Trade Organization (WTO) led to a significant liberalization of a world trade. From the creation of the GATT the world trade order passed through significant change. It has reached many new important features, e.g. spontaneous process of economic activity concentration to the regions of the world economy due to the accelerating globalization which has started new trends and directions has become an important feature of this system.

As an opposite of a multilateral trade system can be seen integration processes which were started in the West Europe in the fifties of last century. The idea of a common trade as an impulse of development of the postwar Europe was in the centre of signature of the Treaty establishing the European Coal and Steel Community (ESUO) within six Western Europe countries in 1951. The foundation of the EU Common commercial policy (CoEU) can be seen in signature of the Treaty of Rome in 1957, concretely in the Treaty establishing the European Economic Community (EEC), article 113 (later 133). The fundamental question arises at present – wheatear CoEU disrupts or supplements international rules curated by the WTO.

The aim of the paper is to clarify the position of the WTO in the current global world trade system, to specify the main changes of the world trade system from the GATT creation and to specify the position of the European Union within the WTO.

1.1 Literature review

To better understanding of the multilateral or regional (unilateral) trade liberalization is necessary to clarify the meaning of terms as a multilateral, multilateralism or regionalism.

The definition of the term multilateralit can be seen as a form of coordination of the internal policy of three or more countries (Keohan, 1990). According Ruggie (1992) multilateralism is not only a way of national policy coordination of a group of countries but it works on a base of concrete principles which arranges the relations between participants. In this way is formulated commonly accepted definition of multilateralism that multilateralism revers to relations coordination between three or more member countries in accordance with given rules. Caporaso (1992) further expanded this definition to the fact that multilateralism is different from the other forms by three properties: indivisibility, general principles of conduct and diffuse reciprocity. Indivisibility means geographical and functional scope within the costs and benefits are spread in the time. General principles of conduct mean the form of generally accepted standards or universal regime of behavior which regulate relationship between all members. Diffuse reciprocity represents broader institutionalization of a trust compared to the conventional reciprocity. Thanks to those the countries do not have to seek the immediate benefit but they can act with a trust that their joint action will be evaluated in a long term. Jones (2011) defines multilateralism as a diplomatic term which refers to the cooperation between several nations. Oudenaren (2003) states, that the simplest way is to define multilateralism in the context of the economic relations where multilateralism refers to the way in which the relations between the participants through the trade agreements and are covered by existing international financial and trade system. Bhagwati (1993), Winters (1996) look on the multilateralism as on opposite of the regionalism and define it as a no-discriminatory reduction of trade barriers within a large number of countries which are covered by the international organization.

Regionalism is defined by e.g. Bhagwatti (1993), Winters (1996). They see it as a preferential reduction of trade barriers within a subgroup of countries which may or may not be geographically or geopolitically close. The main feature of regionalism is that preferences are limited on the subset of countries and are not extended to a number of countries of a world trade system. Nye (1968) in his definition of regionalism at first specify the term “international region” which he see as a limited number of a countries which are connected by the geographical relations and a rate of mutual dependence. Other authors, e.g. Breslin and Higgott (2000), Hurrel (1995) or Wyatt-Walter (1995) define regionalism as a creation on interstate association or coalition based on regions. Söderbaum (2005) looks at multilateralism and regionalism from the analytical point of view as a two totally different spatial levels, where multilateralism reflects worldwide level and regionalism reflects only level of a few states or territories. Cihelková (2004, s. 808) defines regionalism as a *“contractual exchange of market access rights to an isolated group of partners”.* Cihelková et al. (2010) tells that multilateralism is described as the best possible solution for the world trade, regionalism as an alternative solution which may or may not harm the multilateralism. The Viner theory of customs union and the outgoing debate about the usefulness or harmfulness of regionalism is considered to be a fundamental of the traditional approach. Baldwin (1997) says that the regionalism is much simpler than multilateralism which due to significant number of participants enables without major costs and stresses the fact that the current nature of trade barriers is much more complex and non-transparent then quotas and tariffs discussed within the GATT/WTO which makes the business dealing harder, longer and more expensive.

2. The multilateral trade system built on the GATT/WTO principles

The regulation of the international trade has held at first at the bilateral level, i.e. the countries provided reliefs and benefits which were rooted in their bilateral agreements to each other. From the since the forties of the twentieth century there was evolution to the regulation based on the multilateral level, i.e. at first within interim international agreement in the form of the General Agreement on Tariffs and Trade) and from 1. January 2005 within the World Trade Organization[42]. Irwin, Mavroidis, Sykes (2008) say that the GATT was established to remove or weaken barriers which hamper the international flow of goods, and to support all possible measures for expansion of this trade exchange. On the way to those goals defined the GATT rules on the conduct of trade policy and held eight rounds of trade negotiations that led to reciprocal tariff restrictions and non-tariff measures.

WTO, by contrast, is a full-fledged organization with legal subjectivity, which was built on the single undertaking principle ("all-or-nothing") i.e. all WTO members have to adopt a set of commitments. Hoekman, Kostecki (1995) state that the core of the WTO activity has become an issue adjusted by the GATT, but extended to all changes and arrangements which were added to the original contract during its existence. The WTO has compared to GATT greater extent, it brings to the international trade its regulation, intellectual property and investment issues. The basic task of the WTO is to contribute to the liberalization of international trade by supporting of the goals of current and future multilateral trade agreements. It should

[42]The full text of the Agreement Establishing the World Trade Organization is available at http://www.wto.org/english/docs_e/legal_e/04-wto.pdf

be noted that the system of the WTO agreements is really extensive and complex, because it contains legal texts which affect many areas that fall into many sectors. Either (2004) states that the whole system is connected to the fundamental principles those are common to all agreements. The most important and fundamental WTO principle is non-discrimination principle, which is based on the Most Favored Nation principle (MFN) and on National Treatment principle. However from the MFN are admitted some exceptions. An important exception is represented by Article XXIV of GATT, which makes possible to create a free trade area or customs union (see below). Krpec (2005) states that the goal of the WTO is to free trade flows, at the level which member states consider it useful. World trade in a general sense in the WTO adjusted by three main aspects, namely: the General Agreement on Tariff and Trade (GATT), General Agreement on Trade in Services (GATS) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). An important element of the WTO, which is set out in Article III is the Understanding on rules and procedures governing the settlement of disputes and Trade Policy Review Mechanism. The mission of the Trade Policy Review Mechanism is to contribute to compliance of the rules and commitments adopted by the members in the multilateral agreements (WTO, Annex 3: Trade Policy Review Mechanism).

During the six decades of existence of the GATT / WTO was held eight conferences[43] which enables extension and deepened of the trade liberalization. This occurred simultaneously with an enormous increase of a world trade after World War II in a close relation to the world production. Between 1950 and 2005 the average annual growth of world exports was 6.2% (7.5% for the manufacturer) compared to real GDP growth of 3.8% (WTO, World Trade Report 2007). Baldwin (2006) states that from 60th the 20 century until 2000, the average tariff burden in Europe decreased from 14 %to 4.2 %, in North America from 17% to 4% and in Asia from 31% to 9%. The report about world trade in 2011 states that in 2009 the average customs duty applied to all member countries of WTO goods was at 4% (WTO, World Trade Report 2011).

2.1 WTO and the developing countries

In November 2001 the WTO launched one of the most important multilateral trade conference was opened by the Qatar development round[44], which should be completed

[43]The first conference was held in Singapore on the 9 - 16 December 1996, the second was held in Geneva 18 - 20 May 1998, the third in Seattle on 30 November - 3 December 1999, the fourth in Doha 9 - 13 November 2001, the fifth conference, held in Cancun, Mexico 10 - 15 September 2003, the sixth was held in Hong Kong in December 2005, the seventh from November - 2 December 2009 and the last eighth was held again in Geneva on the 15 - 17 December 2011.

[44]This round of rules is also known as the Doha Development Agenda (Doha Development Agenda, DDA). This was around the start of negotiations, which should solve the enormous volume of issues from agriculture, non-agricultural market access through trade in services,

by 1.1.2005. Krpec (2005) states that development round had in the GATT / WTO, its long tradition that dates back to the 60th of the last century. But it was Doha development program which put this issue to the forefront of interest. The basic requirement in this context is the interpretation of provisions of the agreements negotiated in the WTO for developing countries. The main aim was to achieve fundamental reform of the international trading system by introducing lower trade barriers and by revision of the trade rules. Stern (2007) states that this round should respond mainly to the increasing emancipation of developing countries, which have to be respected by the world trading system if it wants to achieve the necessary dynamics and long-term sustainability. The original intention was to terminate the negotiations in 2005 within the Ministerial Conference in Hong Kong. However, the Hong Kong conference managed to negotiate only a few a partial compromises[45] but not enough to conclude the multilateral round. New date for finishing of the DDA was extended until the end of 2006, which was not met. This led to serious doubts about the future direction of the process of multilateral liberalization. The next meeting was moved to 2008, when a conference in Geneva was held. At the Geneva meeting was prepared a quite sophisticated text, which contained a partial compromises of the participating countries, but final negotiations failed. The main discrepancy occurred on the 29th July 2008 regarding the special safeguard mechanism (SSM), which is applied by developing countries for protection of poor farmers. This mechanism enables to impose a special tariff on certain agricultural commodities in case of increased imports and a decline of prices (Weeks, 2011) and problems connected with cotton, which is closely linked to the amount of domestic support in the U.S. (Hnát, 2007). Even further negotiations in late November 2009 in Geneva were not successful, although they were in mind of *"the WTO multilateral trading system and the current global economic environment,"* which sought through open plenary session on the formulation of WTO positions in the new global architecture of a global institutional order, but progress to conclude the Katar development round did not bring (WTO, Seventh WTO Ministerial Conference 2009). At the present time are not yet agreed all the modalities for agriculture (AG) and industrial products (NAMA), which should serve as the basis for the further negotiations and successful completion of the Doha Development Round. The members of the WTO promoted the idea to finish this round till the end of 2011 within the last eighth Ministerial Conference in Geneva, but this idea failed again. Although the whole world is awarded by crucial importance of the Doha Development Agenda, achieving consensus in issues of modalities which is

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intellectual property, investment, competition policy, transparency in public procurement, trade facilitation, rules of dispute settlement, compliance with environmental agreements, WTO agreements, etc. The work program included 21 areas of trade (WTO, Understanding the WTO: The Doha Agenda).

[45]It was e.g. deadline for removal of all export subsidies in agriculture by 2013, further agreement was reached in the cotton or eliminate customs duties and quantitative WTO from the least developed countries (LDC countries), also developed by the developing countries. To eliminate or reduce tariffs on individual products is preferred a simple non-linear formula that allows for greater reductions in higher tariffs. The basis for such a formula is considered so-called Swiss design constraints for the 32 WTO members from the ranks of least developed countries (LDCs countries), even from the advanced developing countries.

necessary to conclude the whole round still remain in sight. In connection with the Qatar round has emerged the idea whether the multilateral trading system is applied effectively in the WTO, and whether it corresponds to the current needs of the global economy. In the situation of uncertainty caused by differences of opinion between developing and developed countries the world was hit by the global financial crisis and, consequently, the economic crisis. The crisis because of its global dimension caused more debates on the future of the global economic and financial systems and on institutions that provide it.

2.2 The position of the WTO in the current global trading system

Although the liberalization of economic relations is broadly comprehended doctrine its evolution is guided by permanent conflict of interests of various world economy actors. This can be seen e.g. in changing of priorities and specific instruments of liberalization. Despite the growing pressure of globalization, multilateral liberalization process is relatively slow in recent years which raise important implications for the development of the world economy. Cihelková et al. (2010) states that the current world trade order goes through four basic changes that can significantly alter it and as a consequence multilateral trading system built on the principles of GATT / WTO is weakened.

The first feature that modifies the current business order is the above-mentioned increasing emancipation of developing countries on providing of world trade. The report of the UN Conference on Trade and Development (UNCTAD) from 2007 is visible that the participation of developing countries in world trade has dramatically increased in the last two decades. Some developing countries and transition countries have become major players in the international economic relations. The report states that the share of developing countries on world trade increased from 29 % in 1996 to 34 % in 2006. Seven major developing economies, which were chosen for further special study (Brazil, China, India, Korea, Mexico, Russia and South Africa) represented in 2004 about 45 % of the world's population, their share on world exports of goods and services was about 26.5 %. Only their share of export of goods from these countries increased from 10.6 % in 1995 to 17.2 % in 2005. This robust business performance contributed to the high rate of economic growth in these emerging economies, the annual real GDP growth reached 5.7 %. As a result of this favorable development, the current account of the balance of payments in developing countries returned to surpluses for the first time since the end of Bretton-Woods monetary system, while in developed countries was recorded current account deficit. An important feature was considerable increase of business-type South-South that while in 1995 exports of goods amounted 11 % in 2005 was on the level at 15 % (UNCTAD, Globalization for Development: The International Trade Perspective). The report on the global trading system published by the WTO in 2008 states that a group of developing countries provides for more than two thirds of world trade in textile products and exports about half of telecommunications and office equipment (WTO World Trade Report 2008).

The second feature of the current trading system is a dynamic growth of services and growing flow of foreign investment. The expansion of the global economy after the World War II was driven mainly by trade in goods, while current trade in services and foreign investment has itself become the most important segment of international economic relations. Services are becoming the dominant sector of national economies and despite the difficulties associated with their tradability they increasingly penetrate into international environment. Capital movement in the world is stretched primarily by effort to evaluate investments (Cihelková et al., 2010). Krpec (2005) further states, that service represent the fastest growing sector of today's global economy and represent for about 60 % of world production, 30 % of total employment and 20 % of world trade.

The third feature that modifies the structure of current business is that after World War II world trade order was a based on the dominant role of the advanced economies, particularly on the so-called "triad" of the world economy (U.S., Japan and Western Europe). U.S. belonged to the traditional defenders of the multilateral trading system up to seventies of the twentieth century when there was a significant modification of attitudes. The reason was mainly in a passive trade balance in the 70 the 20th century and from the 80th constant current account deficit within balance of payments. In the nineties the deficits have grown to hundreds of billions dollars and a relatively weakening of the U.S. position complicated further promotion of multilateral trade liberalization. Schlesinger (2000) states, that formerly dominating multilateral order has not been able to bring optimum way of integration of the international division of labor with regard to the participants. Since the trade relations have been maintained largely by developed countries in Europe, Canada and Japan, a new motive of trade cooperation became regionalism based on bilateral trade agreements. Another important promoter of multilateral liberalization was Japan that preferred this direction up to the 90 the 20 century, because the base of its foreign trade relations was the U.S. At the beginning of the 90, in Japan can be seen a significant shift from multilateralism, which was mainly caused by long-term stagnation of the Japanese economy and economic problems. One of the selected ways for support of the weakened Japanese economy has proved to be trade liberalization on the regional level. An important player who preferred a multilateral trade system, was also Western Europe headed by the European Community and European Union (EU). In the nineties of the 20th century can be on the EU example seen slight deflection of trade with non-EU countries occurred which was caused by intensive preparations for the launch of the single internal market. The position of the three dominant world economy centers was the strongest in the mid of the nineties of the last century, when their share on the world exports was represented by more than 70 %. Since then, however, their position is considerably reduced. The report "Global Europe: EU performance in the global economy" states that the EU-25 had in 1995 a share of 20.8 % value of global market. In 2005 decreased this proportion due to increasing competitive pressures from emerging economies to 19.5 %. The lost which have on the world market undergo the U.S. and Japan Shares are more visible. In the case of U.S., its share on world market was in 1995 at the value 17.5 % and in 2005 its share decreased to 13.5 %. Japan's global market share was in 1995 14 % and in 2005 fell to

9.5 % (European Commission Directorate for Trade, Global Europe: EU performance in the global economy). It is this phenomenon is known as one of the new features of the global economy. This feature is labeled as a new one which belongs to the world economy. Today strengthen their position mainly newly industrialized economies of Southeast Asia called as "Asian Tigers" another growth of importance is visible on a group called BRICS (Brazil, Russia, India, China and South Africa), which is considered to be a group of countries with huge potential. The last mentioned feature of the current business order is huge increase of importance of regionalism[46], a regional trade agreements which set trade rules for its members at another level compared to the multilateral trading system. The growth of regionalism is evident mainly in the 80 - 90 of the last century in the form of so-called "new regionalism". The WTO states that in July 2005 only one WTO member (Mongolia) was not member of any regional trade agreements. Other WTO members were involved in at least one regional agreement (WTO, 2011). Growth of regional trade agreements continues since 1990 with no breaks. Since the establishment of the WTO was registered more than 300 regional agreements and over 200 of them are currently still in force (see Annex 1 and Annex 2). However the obligation of registration within the WTO has not all regional integration, because this obligation to notify the agreement on economic integration has only WTO members. Because of that many agreements e.g. among developing countries is outside of the WTO[47] list. Pomfert (2007) points out that the actual number of notified agreements does not refer to the actual expansion of regionalism because it gives to all integration grouping the same weight. According him some regional integration may have a major impact on the world economy, while others may have only marginal. Between regional groups that have a major impact on the world economy belong the European Union, which currently includes a group of 27 countries and has concluded Association Agreements with other countries, which are supposed to enter into the European Union early. The European Union concluded their agreements not only at the Europe region but is also expanding through other forms of cooperation with non-European countries and regions of the world economy.

[46]WTO Members may enter into regional trade agreements in accordance with WTO rules. It is a permitted exception to the MFN application. The first such exception is provided in Article XXIV of GATT 1947. The Tokyo Round in 1979 adopted the so-called enabling clause, which allows developed countries to differentiate business partners according to their degree of development and by giving them favourable treatment, as an example of generalized system of preferences. In 1995 came into force on the General Agreement on Trade and Services (GATS) and Article V, an exception of the MFN application.

[47]Outside a list of the WTO is e.g. COMESA (Common Market for Eastern and Southern Africa), one of the most successful regional integration in Africa. Furthermore an ASEAN (Association of Southeast Asian Nations), which until the creation of AFTA (Asian Free Trade Area) was not reflected on the list of the WTO. WTO (2005) indicates that there are about 65 agreements, which are functional, but not yet notified in the WTO, more recent estimates are not available.

3. European Union[48] within the World Trade Organization

3.1 Common commercial policy of the European Union

The process of economic regionalization (regional economic integration) was launched in Europe shortly after the end of the World War II. The EU can be considered as a prominent area later connected with a high degree of integration. An advanced form of integration and its institutional characteristics as it represents EU, cannot be compared with other cases of regional integration and confront it with the contemporary trends of regionalism (e.g. Cihelková, Herding (2008).

In order to strengthen the EU's influence on international business it was decided that Member States will in matters of external trade act uniformly under the common commercial policy (CoEU). About a creation of the CoEU was discussed by the founding members of the EEC (1957). It was decided to proceed in the economic integration from the customs union to common market. In 1968 the EU has become a full-fledged customs union, resulting in the abolition of customs duties within internal borders of the EU (Article 25 CoEU) and application of common customs policy for imports from third countries (Article 26 CoEU). The EU can have business relations with the countries and regions outside its borders and act in the international negotiations as one. The common commercial policy is the outer aspect of the Customs Union, which complements its internal aspect, the free movement of goods (Article 23, paragraph 1 CoEU). CoEU belongs to the common policies that represent the key policies, where member states have fully delegated their powers to EU institutions, respectively before the creation of the EU to the European Community (Council, Parliament and Commission).

The common EU trade policy belongs among the oldest EU policy. Its legal embedding is based on Articles 110-116 of the Treaty establishing the European Community from 1957, and later the Treaty establishing the European Community, Articles 131-134, now from the Treaty on the Functioning of the European Union under Articles 206-207. In Articles 206 to 207 are contained provisions establishing common external trade policy and common commercial policy, respectively. Member countries of the Union within the framework of the common commercial policy aim (the Treaty on the Functioning of the European Union, Article 206): *"to contribute, in the common interest, to the harmonious development of world trade, the progressive abolition of restrictions on international trade and on foreign direct investment, and the lowering of customs and other barriers."*

The implementation of the common commercial policy is subject of Article 207 of the Treaty on the Functioning of the European Union. Rozehnalová (2006) in her study gives attention to one aspect of the common commercial policy, that is called multilevel - the multilateral, regional and bilateral level. This multi-level system is

[48] With the entry into force of the Treaty of Lisbon on 1 December 2009, the European Union was granted legal subjectivity. For this reason it is used in this paper only the term European Union, not previously used the term European Community.

based on a multilateral level on the MFN clause and on national treatment principle; regional and bilateral systems on preferential treatment together create a framework for implementation of the common commercial policy. Týč (2006) points out the territorial dimension of the customs union. Not all EU Member States are currently in the customs union. There are areas (e.g. Greenland and the Faroe Islands, which are autonomous regions of Denmark, Spanish and French), which are not part of the customs union, although the states to which the territory belongs, are the EU Member States, whereas countries such as Turkey, Monaco and San Marino are included in the customs union, although they are not EU members. EFTA counties - European Free Trade Association (Norway, Switzerland, Liechtenstein and Iceland) are not members of a customs union).

3.2 The European Union in the context of the World Trade Organization

The European Union is currently the only example of a formal regional representation in the WTO[49], and also each EU member country is a WTO member. Within the WTO have to the European Commission acts on behalf of 27 Member States of the European Union. In a case of a negotiated agreement, the Commission must obtain formal permission from the EU Council and European Parliament before being allowed to sign the agreement on behalf of the EU. Within the WTO the European Union is represented by the EU Commissioner for trade, since 2010 it is Karel De Gucht. Voting in the WTO is governed by Article IX of the WTO Agreement. Decisions are taken by consensus, each member has one vote. Paragraph 1 of this Article provides that the EU has as many votes as Member States. If at the same time votes Member States and the EU, the number of votes is counted according the number of Member States and the EU's voice itself is not applied. According to Article 300 paragraph 7 CoEU international agreements are concluded by the Union within the framework of its powers and are binding for the Union itself and for its Member States. International treaties are part of Community law and European Court of Justice has jurisdiction to interpret their provisions.

World Trade Organization together with the European Union is the two most important subjects of international law in international trade. EU, as was noted in section 3.1, implements its own trade policy, therefore it is not without significance to give brief attention to the relationship between the WTO and EU law. Cottier, Oesch (2005) states that WTO agreements have a nature of the mixed contracts, i.e. which all not fall to the exclusive competence of the EU, but partly also fall to the competences of Member States. To the extent in which they fall within the competence of the Member States they are not considered to be a part of Community law. To that extent, Member States bear responsibility for their implementation and effect of the

[49]EU was not a member of GATT before 1995, members were the only the EU Member States and the EU itself was considered only as a "de facto member", and it was because trade policy was transferred from the Member States to the EU. The WTO Agreement docked next to membership of a countries also membership of international organizations. Article XIV of the WTO agreements allow the membership of the Union, which in accordance with Article XI became the original member of the WTO.

Agreement shall be subject to national law of each Member State. WTO agreements are binding for the EU and the Member States, irrespectively whether they fall within the exclusive or shared competence of the EU. WTO law is as part of Community law, but has a special position. In addition, the WTO is an important player in the international trade, within its competence also belong the power to supervise the trade policies of its members in order to check compliance with agreed rules and obligations, and thereby ensure greater transparency in trade policies and implemented business practices of WTO members. The European Union belongs in terms of its share in world trade between the leading members of the World Trade Organization. For this reason every two years is made a review of EU trade policy (WTO, 2011). The Evaluation is further supplemented by the Protocol of a Trade Policy Review Body and by opinion of WTO members on trade policy of reviewed Member State. The knowledge gained in the review of trade policy can contribute to identify the shortcomings of trade policy and to identify measures of trade policy that may be in conflict with trade rules under the WTO. The evaluation report is drawn up by the WTO Secretariat since 1995. The reports by the WTO Secretariat is positively assessed the EU's approach to the shaping of the trade system. In this respect EU shares the idea of the WTO multilateral trade system that has to be constructed through bilateral, regional and multilateral agreements. Strong advocacy of multilateral trade system is also one of the stated objectives of the European Union. On the issue of removing trade barriers, such as reduction or elimination of tariffs and quotas, etc. the EU according the WTO proceed in accordance with the rules set out in the negotiations and directed, but rather in a moderate pace, to the gradual liberalization of international trade. Over the last few reports the World Trade Organization emphasized the commitment and active approach by the EU in multilateral negotiations, especially in the Doha Development Agenda[50], which are not only in the form of proposed solutions for conflict situations in different areas of trade, but also through contributions to the Global Trust Fund[51] of the World Trade Organization and is also grateful for financing activities under the Doha Development Agenda.

3.2.1 Criticism of the WTO focused on the EU: preferential trade agreements (PTA)

On the other hand the WTO noticed that the EU builds its business relationships with both developed and emerging countries in the so-called *preferential trade agreements*[52] and number of these agreements has significantly increased. Winters

[50]Already in 2000 the EU adopted the Declaration on Development Policy of the European Community, which set out objectives and principles of the future direction of EU development policy.

[51]Funds from the Global Trust Fund are aimed at financing of technical cooperation and capacity building programs the WTO, they are aimed at help for developing and least-developed countries. In February 2010, the European Union announced that the EU has to the Global Trust Fund contributed a total of about 7 million.

[52]PTA includes: the customs union, free trade and association agreements, agreements on cooperation and partnership agreement. All these agreements are subject to notification to the WTO, either under Article XXIV of GATT or Article V of GATS.

(2000) states, that the European Union, preferential trade agreements can be divided into four categories according to their primary motives. The first category is for geographically closed PTA, under which the EU offers accession to the EU. To the second category belongs the PTA aimed to promotion of the stability of the EU's borders in the "neighborhood policy." The third category is made by PTA of developing countries of Sub-Saharan Africa, Caribbean and Pacific (known as ACP countries). The last group consists of PTA with the distant countries and regions where the main objectives of the EU are to neutralize the potential discrimination of EU exports and investments resulting from free trade agreements between third countries, and to ensure business benefits to foreign markets through preferential access. Ahearn (2011) states that the PTA at the EU level cover almost twice of trade (exports) in percentage terms (70 % versus 40 %) than PTA at U.S. level. The biggest criticism directed at the EU is that only nine member's[53] trade on an MFN basis. Balil (2007) states that the EU is potentially associated with more than 121 countries by regional trade agreements, most of them originated to the 90th of the 20th century. According him is a key bilateral agreement called: Agreement with the EU members of the European Economic Area (EEA), which gives together 27 countries and four countries of the European Free Trade Association (EFTA), which comprises Norway, Iceland and Liechtenstein and Switzerland (for the development of trade between EU and EFTA countries see Annex 3). Although Switzerland has refused to become members of the EEA, it works with the EU on the basis of bilateral agreements I. (from 2002) and II. (from 2004). Fojtíková, Lebiedzik (2008) state that the essence of the relationship of EFTA countries which are members of the EEA is the involvement of these countries into the EU single market, with the exception of agriculture and fisheries. Other key bilateral agreements are the Agreement on the association of European countries, so called the Europe Agreement or Association Agreement. The essence of such agreement is the promise to the associated state to undergo a gradual process of training and subsequent involvement in community integration for future EU membership. Currently, the EU has such agreements with Croatia and Iceland, which are likely to become members on the 1. July 2013.

Furthermore with Macedonia / FYROM[54], which in 2005 acquired the status of candidate country? Since 2010 has the status of candidate countries also Montenegro, which at the end of 2011 became together with Russia and Samoa a member of the WTO. Potential members of the EU are Albania and Serbia, Bosnia and Herzegovina, Kosovo and Turkey (Řehořová, 2011). Other important bilateral agreements are those governing EU relations with developing countries, namely: (i) the ACP countries, it is a group of developing countries in Africa, Caribbean and Pacific (ii) overseas (non-

[53] USA, Canada, Australia, New Zealand, Japan, Hong Kong, South Korea, Taiwan and Singapore.

[54]Pandur (2010) states, that the main reason of the length negotiation process is the dispute about the name of the state of Greece. Greece does not want recognize the name "Macedonia" because of the identity of its northern territories and possible territorial claims. For these reasons, it uses temporary name FYROM (Former Yugoslav Republic of Macedonia, FYROM), but still not yet resolved the issue and wants the eventual entry of Greece into the EU FYROM block.

European) countries and the special relationship with the EU member states, (iii) the Mediterranean countries. (i) includes mainly the Coton Agreement covering the period from 2000 to 2020 and the Agreement on economic partnership[55] concluded between the EU and each ACP countries separately. For developing countries that have not signed trade agreement with the EU, the EU provides the General System of Preferences (GSP)[56.] For the period 2006 - 2015 according to EU Council Regulation it distinguishes: General mode, Special incentive arrangement for sustainable development and good governance of so called GSP +, and Special arrangements for the least developed countries, so called LDC countries known as Everything But Arms initiative (EBA). (ii) includes about 20 overseas territories and territories which have special links with e.g. Denmark, Great Britain or the Netherlands. Point (iii) includes the so-called Euro-Mediterranean Association Agreement, which relate to the countries of Algeria, Tunisia, Morocco, Syria, Jordan, Egypt, Israel and the Palestinian autonomous territories. These agreements establish a highly preferential treatment with low or zero duties (Fojtíková, 2007). Between other important bilateral agreements belongs creation a customs union between Turkey, Andorra and San Marino. Balil (2007) states, that the main bilateral agreement is also Agreement on Partnership and Cooperation Agreement between Russia and the EU. The WTO Secretariat reports in this context urged the European Union to assess existing and emerging PTA and the possible extent of their discriminatory nature (in particular it were PTA in relation to the ACP countries) and to assess the possible risk of opacity of the PTA, which would make trade regime of the EU more complicated. The WTO also urged the EU to consider the potential benefits of agreements concluded on the MFN principle.

3.2.2 Criticism of the WTO focused on the EU: The EU as a frequent participant in disputes

Other critics of the WTO relates to the fact that the EU is relatively frequent participant in disputes concerning breach of WTO rules with another member or group of WTO members. According to the WTO by the year 2011, the European Union was complaining in 82 cases and in 70 cases was in the position of the respondent to the complaint. The European Union is also involved in 98 cases in the procedure for

[55]Agreement on Economic Partnership is a program for creation of a free trade zone between the EU and ACP countries. This agreement was created in response to criticism of the WTO incompatibility of Lomé agreements between the EU and ACP countries with WTO rules. It was a breach of Article 1, paragraph 1 of the GATT, where customs duties and other restrictive measures must be excluded for trade among members. Lomé regime, however, generated only one-sided preferences, i.e., it worked on the so-called non-reciprocal duty-free trade cooperation, where more than 90% of exports from ACP countries entering the EU market without any restrictions or duties fees. On the other hand, products from the EU did not have the same preferential market access to ACP countries. The current version of this agreement is now based on a reciprocal basis.

[56]GSP is another exception to the application of MFN in the WTO system, based on the so-called Enabling Clause, which allowed preferential treatment for developing countries. The EU was the first which applied the system of preferences in 1971; it was based on Article 133 of today's common trade policy.

resolving disputes at the World Trade Organization as a third party in disputes between other WTO members (WTO, 2011). The European Union as a whole, whether in the position of the complainant, the respondent to a complaint or a third party in a dispute, was totally in 250 times in the last 15 years, and after the United States is the most involved member of the WTO dispute settlement. According to the European Commission and the World Trade Organization since 1995 can be counted totally 109 dispute settlement cases (out of 421 cases of disputes for the period from 1995 to February 2011), in which appears the European Union and the United States either on the side of complainant, the respondent to the complaint or in the position of third parties in cases involving other WTO members. WTO divides cases into 16 stages according the process of dispute resolution. It is evident that the European Union is in a dispute resolution process one of the most active members of the WTO. But there are also more than two decades of disputes in which the EU has been a subject of complaint highlighting the inconsistency of EU trade policy with WTO rules and when the Dispute Settlement Body found that these complaints are justified and in fact the EU violates trade rules by world trade Organization. One of the most famous cases is the *dispute over bananas* and *hormone dispute*. The case of banana trade regime lasted almost 16 years and is considered to be one of the longest disputes at the WTO level. The EU through its trade regime for the import and distribution of bananas favored ACP group of countries, they have lower tariffs and on the other side other countries such a, Latin America states have imposed higher import duties and sale duties of bananas sold in the EU. It can be seen the traces of protectionism, attempts to prosthetic banana imports from some countries at the expense of other countries and this is considered as a violation of the commitments and objectives established under CoEU that are listed in Article 131. The second case concerned the import ban on meat and meat products from cattle, during its breeding were used materials containing growth hormones applied by the European Union to the United States and Canada. The EU had independent scientific studies on the harmful effects of growth hormone on human health, but the U.S. and Canada strongly attacked it and subsequently U.S and Canada began retaliatory measures against the EU. Arguments drag to the 2009. Finally, the U.S. and the EU signed a Memorandum of Understanding which is an agreement resolving this dispute when the EU in three phases has gradually opened its market to imports of beef from hormone-free meat in exchange for gradual removal of U.S. import duties.

4. Conclusion

GATT was provisional instrument for tackling the problems of world trade respectively its liberalization. Its scope was also very limited (solves only trade in goods). Benefits of the GATT in reducing of tariff barriers are indisputable. Only the Tokyo Round negotiations resulted in the reduction of tariff barriers by one-third in the world's nine largest markets. Onerous duty on industrial products average fell to 4.7%. In the fifties and sixties there was a huge boom in world trade, which undoubtedly influenced the rapid growth of world economy. The growth rate of world product in that period averaged 8% annually. In connection with the structural crisis of the seventies and recession in the eighties, however, the new problems with which the structure of the GATT had to cope. Tariffs lowered by the General Agreement and parallel increase in protectionist tendencies in the eighties led to the increase of other instruments of control of international trade (or his barrier). At the same time new issues emerged – i.e. new areas of still more complex and more important international trade, which were outside of the GATT radius. Among the most important problems belonged trade in services, foreign investment and the question of trade relations between developed and developing countries. It was the issue of unsustainable development which suggested unsustainability of exceptions and special arrangements for politically controversial areas of trade liberalization - the so-called sensitive sectors. The GATT successor, a real organization with legal subjectivity, the World Trade Organization entered into force in 1995. Unlike the GATT its activities covers also the service sector, investment issues and legal aspects of a protection of an intellectual property. However, changes in the global trade order, have led to the creation of numerous new issues, the most important role is the role of regionalism in today's business order.

The aim of the paper was to clarify the position of the WTO in the current global trade system, to specify the main changes of the global trade system undergo from the creation of the GATT and to formulate position of the European Union within WTO. Cihelková, Hnát (2008) say that European Union is today´s example of the deepest regional economic integration on the world. It is mainly because of its formal and institutional characteristics which it has reached during its evolution. The EU has distinctive bureaucratic features and own policy, the oldest is Common commercial policy whose roots goes to the 1957. In a today´s world is the EU the only example of the formal regional representation within the WTO. The trade policy review by the WTO for the EU positively evaluates access to the shaping of the trade system. In this respect the European Union shares idea of the World Trade Organization about multilateral trade system and a strong defense especially of the last multilateral round of WTO negotiations - the Doha Development Agenda. However, the EU is strongly criticized by the number of concluded preferential trade agreements that have a strong tendency to grow and are not in accordance with Article I of the Agreement about Establishing the World Trade Organization. Mainly The Lomé Agreements, which govern the relations between the EU and a group of developing countries in Africa, Caribbean and Pacific, have been subject of sharp criticism. Another problem is seen in the high rate of EU representation within the mechanism of settlement of the WTO trade disputes. The European Union as a whole, whether in the position of the complainant, the respondent to a complaint or as a third party in a dispute, was in total in 250 times in the last 15 years. With this number is the EU after the United States the most involved member of the WTO in the dispute settlement. Despite this, the WTO and the EU are two the most important subjects of international law in international trade.

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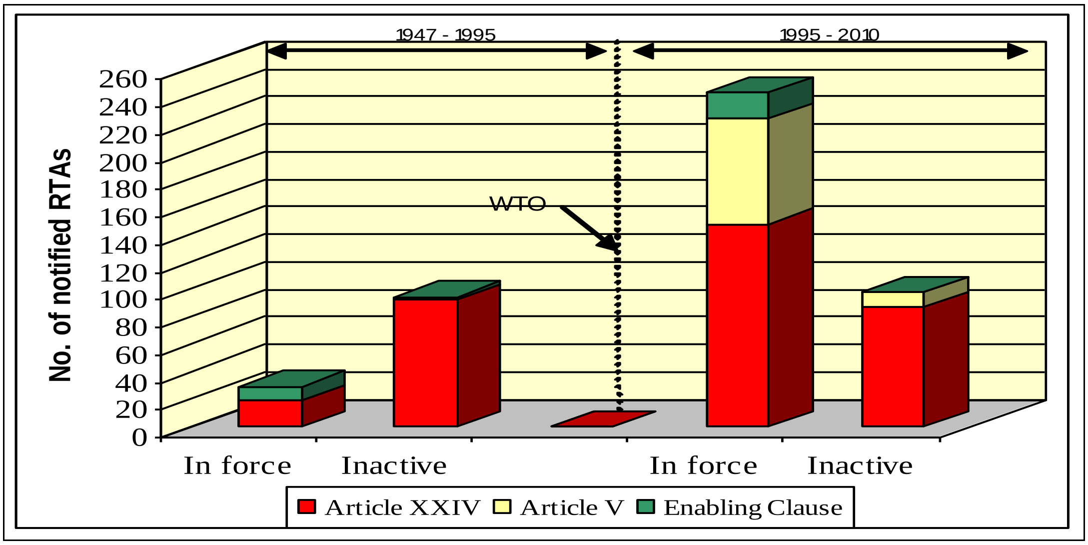
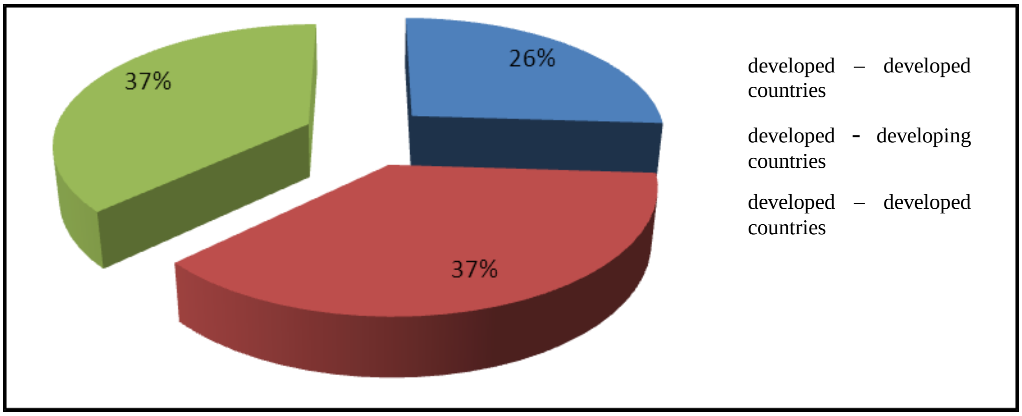
Annexes

Annex 1: Number of regional agreements notified in GATT/WTO 1947-2010



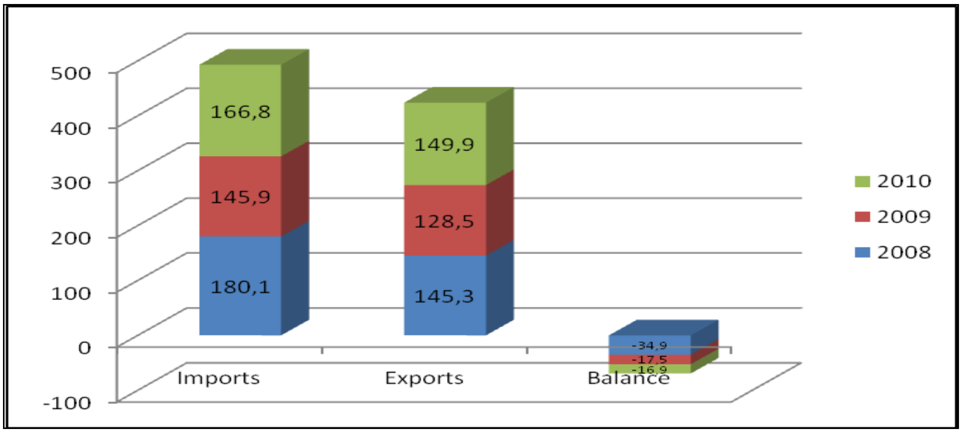
Source: UNCTAD. Trade and development Report 2010

Annex 2: Notified regional trade agreements in goods by type of partner from 1. 4. 2010



Source: UNCTAD. Trade and development Report 2011

Annex 3: Development of trade in goods EU with EFTA in 2008-2010



Source: DG Trade. EFTA, 2011

EU Governance – a Contribution to Economic Policies of Member States

Boris Navrátil
VŠB – Technical University of Ostrava
Faculty of Economics, Department of European Integration
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
boris.navratil@vsb.cz

Abstract
The European Union and its Member States have taken a series of important decisions that will mean stronger economic and budgetary coordination for the EU as a whole and for the euro area in particular. In this way, an imbalance that has existed between the two parts of Europe's Economic and Monetary Union (EMU) is being rectified. The decisions will ensure that Member States more closely coordinate their economic policies – something the crisis has shown to be essential. As a result, the EU's interdependent economies will be better placed to chart a path to growth and job creation. Nevertheless this way must be a result of consensual response of all Member States, not only of the German – French tandem. The changed political situation in France after the presidential elections can contribute to the desired solution.

Keywords: *European Union, Governance, Economic Policy, Treaty on Stability, Coordination and Governance in the Economic and Monetary Union*

JEL codes: *F30, G01, N24, O52*

1. Introduction

The economic and financial crisis in the end of ´00 exacerbated the pressure on the economies of EU Member States. One key lesson from the crisis has been that more attention needs to be paid to macroeconomic imbalances and divergences in competitiveness between EU countries. In some cases, current account imbalances and divergences in price competitiveness have reached unprecedented and unsustainable levels,

The new EU economic governance is based on the three main responses to the crisis:

- Reinforcing common economic agenda with closer EU surveillance

The EU has agreed economic priorities: The Europe 2020 strategy is the EU's common economic agenda. It sets out clear priorities and targets at EU and national level to boost Europe's growth over the next decade. The Annual Growth Survey (AGS) sets priority actions for the next 18 months, which are translated into national targets and measures tailored to the needs of each Member State. The Euro+ Pact sets additional commitments for the countries taking part.

There will be tighter EU surveillance of economic and fiscal policies: The Commission has proposed giving the EU new tools to prevent unsustainable public finances and major competitiveness imbalances between Member States. The system includes sanctions: euro area countries not respecting the rules can face fines.

The economic priorities and budgetary policies will be discussed at the same time every year. The new coordination device to monitor commitments at EU level is called the European Semester. Over the first half of each year, discussions will take place both on the EU's economic agenda, on the basis of the AGS presented by the Commission in January, and on Member States' priorities, presented in their national programmes in the spring. Country-specific recommendations will be issued in June, giving time for these to be incorporated into national budgets and economic policies for the following year.

- Safeguarding the stability of the euro area.

In 2010, the EU responded to the sovereign debt crisis by setting up temporary support mechanisms, which will be replaced by the permanent European Stability Mechanism (ESM) in 2013 (or maybe already in 2012). These support measures are helping to safeguard the financial stability of the euro area. They are conditional on rigorous fiscal consolidation and reform programmes, and are developed in close cooperation with the IMF.

- Repairing the financial sector.

The EU has established new rules and agencies to address any problems earlier and make sure all financial players are properly regulated and supervised. Further work will be carried out, including the more systematic and rigorous bank stress tests currently taking place. A healthy financial sector is essential to allow businesses and households access to credit.

2. Tighter EU surveillance of economic and fiscal policies of Member States

Over the past few years, the EU has not been able to respect the goals it set itself on economic and fiscal policies, partly because of a surveillance mechanism that was not stringent enough. To address this, on 29 September 2010 the Commission presented six legislative proposals (the so-called ***Six-Pack***) that entered into force on 13 December 2011. The package has three main objectives:

- **1st objective: Stronger *preventive action* through a reinforced Stability and Growth Pact**

Member States must avoid excessive public deficits (beyond 3% of GDP) and excessive debt (beyond 60% of GDP), so as not to put fiscal sustainability at risk. These rules are enshrined in the Treaties and detailed in the **Stability and Growth Pact (SGP)**.

This is achieved both through surveillance of national budgets and surveillance and coordination of economic policies (based on Article 121 of the Treaty). To this effect, each year Member States set out the structural reforms and efforts needed to achieve fiscal sustainability in their **Stability or Convergence Programmes (SCP)**.

The new governance system introduces three key changes:

- *Greater transparency*: Member States should ensure that their fiscal frameworks, at all administrative levels (national, regional and local) reflect the EU budgetary framework. This means bringing all elements – such as national public accounting systems, statistics and forecasting practices – into line with EU standards, allowing for more clarity and peer pressure.
- *Stricter rules*: Member States with unsustainable public finances will be required to make significant progress towards medium-term budgetary objectives (MTO) to respect the 3% deficit criterion. Expenditure growth should be linked to the mid-term GDP growth rate, so that any extra revenue leads to increased savings rather than higher expenditure. A faster adjustment path towards the MTO will be expected from countries with a debt ratio above 60%, countries with a strongly rising debt level or countries facing risks to long-term sustainability.
- *Better enforcement*: Failure to respect the agreed principles will make the concerned Member State liable to a warning from the Commission, even in the preventive phase. In case of a persistent and/or particularly serious failure to respect the rules, the Commission will draft a recommendation to the Member State to take corrective action. The recommendation will be adopted by the Council unless a qualified majority of Member States vote against it (the so-called reverse qualified majority voting procedure). For euro area Member States, the recommendation will be backed by an enforcement mechanism (based on Article 136 of the Treaty) in the form of an interest-bearing deposit amounting to 0.2% of GDP. This preventive arm of the SGP has been further strengthened by the Euro+ Pact, with euro area (and several other) Member States committed to translating EU fiscal rules as set out in the SGP into national legislation through a specific national legal vehicle of their choice. This should have a sufficiently strong binding and durable nature (e.g. a constitutional or framework law).

- **2nd objective: Stronger *corrective action* through a reinforced Stability and Growth Pact**

When Member States do not respect the thresholds laid down in the Treaties, the **Excessive Deficit Procedure* (EDP**) is triggered. However, the current fiscal situation in almost all Member States, and the sovereign debt problems in some, show that the existing EDP was not effective. The Commission has proposed giving teeth to the SGP through better enforcement and the ability to fine Member States (as outlined above). The two key changes are:

- Stricter rules: debt reduction will now be a criterion in the assessment of public finances. Member States with debt in excess of 60% of GDP must reduce the amount by which their debt exceeds the threshold by at least 1/20th per year over three years. If they do not, they will be placed in EDP. All relevant factors should be taken into account, as outlined in the Commission proposal, when assessing the satisfactory pace of debt reduction.
- Better enforcement: a non-interest-bearing deposit of 0.2% of GDP will be requested from a euro area country that is placed in EDP. The Commission will draft a recommendation to the Member State to take corrective action. The recommendation will be adopted by the Council unless a qualified majority of Member states vote against it (the so-called reverse qualified majority voting procedure). In case of non-compliance with the initial recommendation for corrective action, this non-interest-bearing deposit (see below) will be converted into a fine. The fine will be increased in case of repeated non-respect of the recommendations.

- 3rd objective: reducing macro-economic and competitiveness imbalances.

Over the past decade, Member States have made divergent economic choices, leading to competitiveness gaps and to major macroeconomic imbalances within the EU. One key lesson from the crisis has been that more attention needs to be paid to macroeconomic imbalances and divergences in competitiveness between EU countries. In some cases, current account imbalances and divergences in price competitiveness have reached unprecedented and unsustainable levels, and this goes well beyond a natural catching-up process or demographic determinants of the past decade. A new surveillance mechanism had to be set up to identify and correct such issues much earlier. Surveillance of macroeconomic imbalances is an integral part of the "European semester", the economic policy cycle that integrates economic, budgetary and structural reform as well as measures to help boost growth.

3. Why does the EU need a new Macroeconomic Imbalance Procedure?

Macroeconomic Imbalance Procedure (MIP) is part of the so-called "six-pack" set of legislation to strengthen fiscal and macroeconomic surveillance in the EU and the euro area. It will rely on the following main elements:

- Clear alert system: a scoreboard of external and internal indicators (around 10) to detect imbalances emerging in different parts of the economy. The composition of indicators may evolve over time. Thresholds will be identified and announced. The assessment of such indicators will not be mechanical but will be done by the Commission based on in-depth reviews, Stability and Convergence Programmes and National Reform Programmes.
- Stricter rules: a new Excessive Imbalance Procedure* (EIP) will now be created, based on Article 121 of the Treaty. This mirrors the Excessive Deficit Procedure for public finances. If the Commission considers that macroeconomic

imbalances (or the risk thereof) exist, it will propose that the Council open an EIP and recommend that the Member State(s) concerned adopt a corrective action plan with a clear roadmap of implementing measures and a deadline. Progress made will be reviewed on a regular basis.

- Better enforcement: For euro area countries, the enforcement mechanisms will include both fines (0.1% of GDP) and non-financial measures in case the imbalances are not corrected.
- Experience has shown that surveillance must be followed up by proper enforcement given the potential harmful spill-over effects between countries in the EU, and in the euro area in particular. There is thus a clear need for a stronger framework and reinforced governance, including financial disincentives, to ensure that recommendations are appropriately taken into account at national level. The MIP gives the European Commission and the Council of the EU the possibility to take action before the imbalances reach unstable levels.

The preventive arm of the MIP gives the European Commission and the Council of Ministers the possibility to adopt recommendations at an early stage, in other words, before imbalances build up even further. In more serious cases, it can trigger the corrective arm, the "Excessive Imbalances Procedure".

The conclusions of the Alert Mechanism Report will be discussed in the Eurogroup - as far as Eurozone countries are concerned - and in the EU's Council of Economic and Finance Ministers for all EU countries. On this basis, the European Commission will prepare country specific in-depth reviews that will form part of the analysis carried out in the context of integrated economic surveillance under the European semester.

4. Conclusion

This first implementation of the macroeconomic imbalances procedure takes place against the background of a problematic economic environment dominated by concerns about sovereign debt. All Member States are adjusting to the impact of the crisis, although their individual challenges differ in terms of scope and severity. As the Commission's recent Annual Growth Survey explains, in addition to correcting significant imbalances that built up over previous years, the Union and Member States are also dealing with the interrelated challenges of tackling low growth and high unemployment, ensuring sustainable public finances and restoring stability to the financial system. The objective to reduce imbalances is also recognised in the context of the G20 where a surveillance process to promote an orderly rebalancing of global growth conditions has been put in place. An adjustment of macroeconomic imbalances is underway in many Member States, especially those which have/had high external deficits and large imbalances in household and/or corporate balance sheets and in their public sectors. This process still has some way to go, and has led in a number of Member States to a significant rise in unemployment levels and a reduction in the level of economic activity in the short term. As highlighted in the Annual Growth

Survey, reforms promoting productivity growth will have particular relevance for Member States suffering from macroeconomic imbalances due to their positive impact on potential output and adjustment capacity. In the current environment, the risks of newdemand-led imbalances emerging are generally low, although pressures on asset markets could re-emerge once growth resumes. Given that programme countries are already under enhanced economic surveillance of thein economic situation and policies, they are not examined under the macroeconomic imbalances procedure. This concerns *Greece***,** *Ireland***,** *Portugal* and *Romania***.** *Latvia* is under post programme surveillance as the balance of payment assistance programme expired on 19 January 2012 and is therefore examined in this report. On the basis of the economic reading of the scoreboard, the Commission considers that further in-depth analysis is warranted to closer examine issues involving several Member States. The broad approach reflects the fact that this is the first application of surveillance under this procedure and that it therefore has to cater also for the adjustment to previously accumulated imbalances. The Member States concerned are: *Belgium***,** *Bulgaria, Denmark, Spain, France, Italy, Cyprus, Hungary, Slovenia, Finland, Sweden and the United Kingdom.* The identified Members States have different challenges and potential risks including spill over effects. Some Member States need to correct accumulated imbalances on both the internal and external side. They will have to reduce high levels of overall indebtedness and regain competitiveness so as to improve their growth prospects and export performance. In-depth analysis will help to assess the drivers of productivity, competitiveness and trade developments as well as the implications of the accumulated level of indebtedness and the degree of related imbalances in several Member States. Some countries are experiencing rapid adjustment partly due to catching-up effects and these developments may require a closer examination. Despite overall good macroeconomic performance some countries display developments in asset markets, including in particular housing, and a continuous build-up of indebtedness in the private sector, which also warrant further analysis. Finally, the economic reading of the scoreboard indicators points to the need for further horizontal analysis on the drivers and policy implications of *large and sustained current account surpluses*, especially in some euro area Member States. In the next months, the Commission will undertake further assessment of the divergence in economic performance across Member States, including exploring trade and financial interlinkages between deficit and surplus countries and examine ways for further re-balancing at the level of the euro area and within the global context. It will also assess the role played by structural factors, including the functioning of services markets, through their impact on domestic consumption and investment, as a driver of sustained surpluses and thus pointing towards the necessary policy guidance. In this context the Commission will also study further the role played by catching-up effects. In the context of multilateral surveillance and in line with Article 3.4 of the Regulation, the Commission invites the Council and the Euro Group to discuss this report. The Commission is also looking forward to feedback from the European Parliament and other stakeholders. Taking into account these discussions, the Commission will start to prepare in-depth reviews for the relevant Member States.

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Economic Openness and Financial Integration in Asia

Erzsébet Nedelka
University of West Hungary Faculty of Economics
Department of international and regional economics
Erzsébet street 9., Sopron, Hungary
nedelka.erzsebet@gmail.com

Abstract
In Hungarian news I could read and hear a lot about the Asian economies which were over the global crisis because they were not so integrated into the world economy but we did not get answer how world economy integration was measured. Therefore, first of all, I had to search for indexes wherewith the world economy integration can be measured. I will use the foreign trade openness index, the international financial integration index and the gross equity index to determine the level of their world economic integration. Maybe the result will not be convincing enough and I will not be able to say that they have a low world integration level, and this is why the global crisis not serious was. Therefore I will look up their action programs which were made against the negative effect of the global crisis as well; and I will also analyze the Asian crisis, because I suppose that after that crisis Asian countries were in really economy boom which helped their (successful) crisis management. So the aim of my paper is to show that economic openness and integration is not responsible for the deepening of the crisis, and with social centered economic programs it is conquerable.

Keywords*: World economic integration, trade openness, financial openness, Asian economies*

JEL codes*: F15, F39, G01*

1. World economic integration

Is it possible to measure the world economic integration level, does this world exist at all, and if it exists than what does it mean? How much influence has the level of the integration in the global crisis in the analyzed Asian countries? Has this level had any effect on the economics performance? Or have their prior experiences helped crisis management? (Because of the allowed format of the paper in this essay only five countries will be analyzed)

What does world economic integration mean? We can easily find out word refer to the openness of the countries from trade and financial aspect as well. In this case we can find more indexes whereby integration level is measurable. The most famous index of the trade openness correlates the amount of the export and import to the GDP:

$$foreign\ trade\ openness = ((export + import)/2)/GDP \tag{1}$$

The first table shows how the trade openness index of the analyzed indexes changed between 2002 and 2010. The interest of the data that the Asian crisis hit Thailand most seriously but it did not deny the door to foreign trade; it chose the openness like South Korea; while the seriously affected country, Indonesia, chose shutting itself up like Philippines.

Table 1: Changes in the foreign trade openness between 2002 and 2010

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Indonesia	24,2%	18,0%	20,3%	20,1%	20,0%	20,8%	25,0%	18,9%	18,2%
Malaysia	84,9%	78,0%	69,3%	80,8%	84,9%	76,6%	79,7%	71,2%	80,9%
Thailand	50,3%	44,1%	43,8%	47,8%	51,4%	49,2%	60,9%	50,9%	54,6%
Philippines	41,2%	40,9%	38,6%	36,9%	34,3%	33,1%	31,4%	24,9%	27,7%
South Korea	26,5%	24,2%	26,1%	27,5%	28,6%	30,3%	46,2%	41,4%	43,6%

Source: Author's calculation based on World Band and the national statistical data

We can maybe find answer (why was the global crisis weaker in the analyzed countries) in the trade structure of the countries. Export structure can give answer if in the most seriously affected countries export dominated before the global crisis. In case import dominated countries than import structure has to be inspected. During the global crisis the biggest economic decrease by GDP growth occurred in Thailand and Malaysia (marked in bold black), though in Indonesian and South Korean economy export was also bigger than import. And we could not say that countries whose import was stronger in foreign trade were saved from global crisis. (Philippines depend on import because of the area of the state).

Table 2: Export to GDP ratio

	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Indonesia	148,3%	162,9%	158,9%	155,0%	134,9%	131,6%	120,1%	141,7%	131,7%
Malaysia	**122,8%**	**124,0%**	**132,3%**	**124,4%**	**123,9%**	**124,7%**	**128,6%**	**134,3%**	**120,7%**
Thailand	**104,8%**	**116,5%**	**116,4%**	**108,7%**	**98,9%**	**103,5%**	**111,1%**	**127,7%**	**121,9%**
Philippines	123,3%	104,8%	96,1%	103,0%	96,7%	91,5%	79,3%	80,9%	84,7%
South Korea	108,6%	109,6%	114,6%	117,0%	112,6%	105,4%	101,4%	117,7%	111,6%

Source: Author's calculation based on World Band and the national statistical data

Thus from foreign trade openness by itself we cannot draw a conclusion therefore we have to analyze financial openness as well. To financial openness I used two indexes. IFIGDP (international financial integration) correlate the amount of foreign assets and liabilities to the GDP:

$$IFIGDP = \frac{FA+FL}{GDP} \tag{2}$$

where FA and FL are the whole liability stock and assets stock. The GEQGDP is a ratio which measure Gross Equity Integration. It sums up the portfolio equity assets and liabilities and foreign direct investment assets and liabilities.

$$GEQGDP = \frac{(PIA+FDIA+PEQL+FDIL)}{GDP} \qquad (3)$$

where PEQA is the portfolio equity assets, FDIA is the foreign direct investment assets, PEQL is the portfolio equity liabilities and FDIL is the foreign direct investment liabilities. Results are summarized in the Table 3 and 4.

Table 3: International financial integration

	2003	2004	2005	2006	2007	2008	2009
Indonesia	93,15%	89,45%	86,08%	78,37%	84,30%	60,44%	77,33%
Malaysia	174,95%	197,04%	183,05%	197,01%	233,65%	189,73%	235,01%
Thailand	128,27%	133,06%	135,11%	143,91%	154,02%	135,57%	166,82%
Philippines	125,24%	116,49%	114,69%	108,57%	108,95%	91,25%	100,81%
South Korea	90,12%	99,95%	104,33%	113,78%	130,56%	111,38%	162,66%

Source: Author's calculation based on UNCTAD and IMF data

Table 4: Gross equity integration

	2003	2004	2005	2006	2007	2008	2009
Indonesia	9,97%	13,12%	20,18%	22,52%	28,62%	19,14%	28,60%
Malaysia	66,98%	66,25%	69,98%	90,29%	113,20%	81,06%	114,11%
Thailand	52,76%	49,07%	53,53%	56,52%	62,07%	48,69%	66,04%
Philippines	19,21%	20,83%	22,46%	24,83%	30,26%	20,16%	24,35%
South Korea	29,11%	35,52%	42,40%	44,06%	53,86%	37,66%	60,60%

Source: Author's calculation based on UNCTAD and IMF data

After the examination of the financial openness (like in foreign trade openness) we can find contradictory data. There is only one country which is very open from the financial point of view (and of course opens from trade aspect), this is Malaysia. Thailand and South Korea are moderately open. The other countries are closed. Comparing the three tables we can establish the following order:

- very open economy: Malaysia,
- open economies: Thailand, South Korea,
- very closed economies: Indonesia, Philippines.

Seeing the data we have to reject the hypothesis that Asian countries "survived so easily the global crisis" because they were not integrated into the world economy as for example West-European countries. However I have to mention that the GDP growth of the strongly closed economies did not decreased as much as the other analyzed countries.

After I could not get answer why these countries were over the crisis and why they were not hit so hard by the crisis as western countries, as each economist know, I tried to find reason in Asian crisis which could explain why they were so "successful".

2. Asian crisis

2.1 Origin of the Asian crisis

The Asian crisis was a financial and a currency crisis. The main reason was the deterioration of the balance of financial sector. What caused the deterioration of the balance in the analyzed countries? Because of the financial liberalization the foreign direct investment increased, the limitation of the interest rate was derestricted and different type of the credits became available in these countries. The results of these actions were the extension of the credit accommodation. External debt in Indonesia, Thailand and Philippines were higher than the 50% of the GDP. The extension of the credit accommodation should not have caused problems for the analyzed countries, but the creditors have not got enough professional skills to measure the real risk of these new types of the credits. Moreover, the banking system was not able to adequately control and analyzes credit requests because it did not built up an adequate security net for banking system. Result was great loss and the deterioration of the financial balance of the banks.

In Indonesia and in Thailand the vulnerability was higher because the corporation customers of the banks took the risk of the rollover credits and the currency changes. In those days it did not seemed so risky venture because the Thai baht and the Indonesian rupiah was stable currency against the dollar. Because of the weak economy the enormous rate of the risky credits (Table 5.) and the deregulation of the financial market economies became favorable to speculation attacks which occurred in the summer of 1997. The Bank of Thailand exhausted significant amount of its international reserve to protect the rate of the baht. Because of this protection the repayment of large-scale short-term debt became problematic. In Indonesia (similar to Thailand) the rate of the currency could not be kept, therefore it started to decrease and corporations tried to hedge their short-term position on the foreign exchange market, which led to the further fall of the rupiah.

Table 5: The rate of the short term-debt to the international reserve and to the total credit portfolio, July of 1997

	The short-term debt ratio to the international reserve	**The short term debt ratio to the total credit portfolio**
South	3,0	67,0
Indonesia	1,6	24,0
Thailand	1,1	46,0
Philippines	0,7	19,0
Malaysia	0,6	39,0

Source: Goldstein (1998) p. 11

2.2 The cure of the Asian crisis

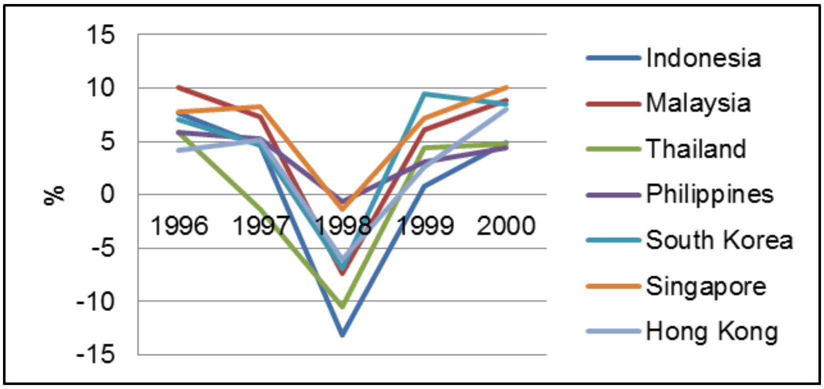
The IMF offered rescue package to the region's countries. Philippines got the first 1.1 billion US$ aid. The second package which was 17.2 billion dollar was given to Thailand, the third (40 billion dollar) was given to Indonesia and the fourth (57 billion dollar) was given to South Korea.

To get rescue package above mentioned states had to adopt some actions. For example In **Indonesia** the government had to close 16 banks and had to reorganize more of them. State owned monopolies had to be winded up (exception rise). In **South Korea** the annual rate of the inflation had to be fewer than 5%, the state had to accept that economic growth would not be more than 3%, new deposit insurance system had to be established and the Bank of Korea had to become independent. **Thailand** had to increase its international reserve in the first step with 23 billion US$ and in the second step with 25 billion US$, and budget deficit had to be fewer than 5% and then 3.5% of the GDP. Malay financial reform package contained a new classification system of the loans and a supervisory and regulatory system was built up as well. Government offered rehabilitation program for the weaker banks. The Asian crisis was a little bit different in Philippines. The **Philippine** government implemented structural reforms in trade and in investment; the markets of the produce and services were liberalized (including telecommunications, financial and transport sectors) and public enterprises were privatized. Because of these changes the budget had surplus. Thanks to this surplus, and because of to the right steps against the crisis the economic decay was quit moderate.

2.3 The result of the rescue packages

The regeneration of the economies was as quickly as the crisis ended. From year to year the output of the economies started to increase in the analyzed countries. (Of course it didn't mean that they reached pre-crisis performance). Forecasts predicted at least 3-4 year stagnation in these countries. So the financial crisis was actually a V-shaped crisis which is shown on the first figure.

Figure 1: GDP changes int he percente of the previous year (1997-2000)



Source: World Bank

Interest rate was decreased to support the recovery of the enterprises. Beside of the high interest rate enterprises went bankrupt or weren't able to implement reforms which could help their everyday life and their competitiveness. Devaluation of the currency with reducing interest rate helped companies to have more incomes from export activities. Amount of short-term debt which was offered by foreign banks, was halved; after the Asian crisis it decreased from 8% of the GDP to 4% of the GDP while the loans which were offered in the national currency increased from 16% (1995) to 42% (2006). The government paid attention not only for business sector but also for society. A fund and a bank was set up in order to help on low income families, moreover, some financial institutions got capital to ensure a social safety net. Reducing of unemployment rate caused serious difficulties only in two countries (Indonesia, Philippines), where this rate continued to grow until 2005-2006 and was more than 10%. While in other countries after the millennium the slow increase stopped and decrease was observed as well as in the poverty. The impact of the social actions achieved its aim, poverty decreased, living standard bettered.

3. The Asian crisis and the global economic crisis

The Asian crisis was a speculative attack in an overheated area, while today's crisis is the result of the collapse of the banks which were built on credits but had not got enough funds. Moreover Asian crisis was actually a regional crisis, while the global crisis is world crisis because of its wideness. In addition, the Asian crisis was a financial crisis and it affected real economy only in a small scale but the global economic crisis became a serious real economy crisis from a financial crisis. The Asian crisis spread from a smaller country (Thailand) to the other countries, but the origin of the global economic crisis was in the greatest economy of the world; it spread from USA to the other economies. Root cause (the problems of the credit system) and the engine of the crisis (weakening of the reliance of the investors) were common in these two crises; therefore I think that the two crises are comparable.

3.1 The effect and the cure of the global crisis

Among the analyzed countries the poorest is **Philippines**, but its economy expanded dynamically before the crisis. Annual growth of the output was more than 5.5%. After 2005 unemployment rate fell below 8% compared to 11% of the previous. Living standards grew annually by 13%. The ratio of the current balance of payment to the GDP was better than in South Korea and in Indonesia. Net amount of the foreign direct investments in 2007 was six times as much as in 2003 (20,9% of the GDP). In 5 years before the global crisis its international reserve doubled, while its external debt almost halved in the ration of the GNI from 2003 (78,9%) to 2007(46%). Despite of this excellent economic performance, the global economic crisis didn't avoid Philippines but it caused only an economic slowdown, not decay (we had to mention that high inflation also contributed to slowdown). 2009 was the worst year, when the output grew only with 1.1%. The government worked out a financial stimulus package. The main aim of the program was the reduction of the government expenses, tax reduction and more PPP constructions. The program comprised other general targets like sustainable growth, defending as much workplace as possible and creating new ones, protection of the most vulnerable sectors, preparation for homecoming citizens, who come home because lost their jobs during the crisis, ensure low and stable prices to growth the consumption. Investment expenditures were 225 billion peso in 2008 and 275 billion peso in 2009. Moreover, great amounts were spent to repair and rehabilitate roads, hospitals, bridges, renovating of schools and ministry buildings. This package was not reactive; it helped economy and achieved financial stability during a crisis. The biggest testimony of the success was the growing economy and stagnate (but not increasing) unemployment rate.

Indonesia is the second closest and poorest economy among the analyzed countries. Unemployment rate was more than 10% between 2003 and 2007 and inflation was two times above 10% during this period. Moreover, Indonesia had the weakest currency in the area. (In 2007 one US$ was more than 9100 rupiah). There was only two good points in its economy: before the crisis (like in Philippines) amount of its GDP per capital was 5.46%, which helped development; and the external debt was only 30% of GNI which is really good result in the region. The crisis is slightly affected Indonesia because of its closed nature, its underdevelopment and developing nature. GDP growth rate fell only to 4.6% from the 6% and in 2010 it was again more than 6%. Living standards improved steadily, in 2008 with 16.69%, in 2009 with 4.5%, in 2010 with 29.59%, the GDP per capital was even so only 3000 US$. Government was able to reduce unemployment rate in the first year of the crisis with 0.7% and in the second year with 0.5%. When the inflationary pressure eased, interest rate decreased and increased the state guaranteed level of the bank deposits. Still there was a need for an economy stimulus package of course, which helped to maintain household consumption by personal income tax reduction, value added tax reduction and increasing of the level of the tax free income. The government supported the retraining of the unemployed and gave qualification to unskilled labor force; reduced anti-investment regulations and increased the information sector. Because of the social network and stimulus package living standard was more than 29% and unemployment rate reduced to 7.1%.

Moderately closed **South Korean** economy had also a small positive growth but it was in the margin of error (0.3%). As the other countries, South Korea had annually 4-5% growth; living standard was the third greatest among the analyzed countries. Relative welfare had a big price, external debt increased with 124% from 2003 to 2007 which significantly weakened the economy against external effects. However, these were able to be relieved by great amount of the national reserve, which was in 2007 more than 260 billion US$. When the crisis erupted central bank set up 60.000 million US$ to stop the devaluation of the national currency. Despite of this the currency lost 40% of its value. Although South Korea was financially a moderately closed country, its financial system was built on traditionally banks and government believed to get more influence on the economy through the bank system, which resulted in intertwining of the whole financial and public sector. Situation worsened with the interesting nature of the liberalization. The rules and the role of the inspectoral institutions were reduced. Therefore the borrowing of the domestic banks from a foreign bank became restriction fee as well as the stock traffic of the foreign banks. In 2008 owners of the stocks sold their shares and deducted significant amounts from the South Korean financial market. Disinvestment caused serious problems therefore South Korea worked out a stimulus package against them. First of all the Korean Development Bank, the Korean Export-Import Bank and the Korean Industry Bank got capital injection from the state to improve their capital adequacy ratio and amount of loans. Korean Asset Management Corporation got 1 billion won to buy back bad loans. For the other banks a fund was establish with 20.000 billion won (18 billion US$). Moreover, banks can get more support if they help for SME to got loans and if they fulfill the 11-12% requirement of the capital adequacy ratio. In these stimulus package there was some standard program like tax reduction (for households and companies as well), interest rate reduction, tax reimbursement, jobs creation… Because of the successful of the program living standard increased with 21%, economic growth was 6.2% and inflation rate was under 3%, export and import broadened.

Thailand is a moderately open economy, which was in a good position before the crisis. Its GDP growth was annually 5%, inflation rate was under 5%, and unemployment rate was under 1.5%. Despite of the good economy performance the global economy crisis affected quite serious because in 2008 there the state was in the middle of the politic crisis and the government was not able to work out or get across any fiscal package. The first wave affected the bank sector, but it was not so serious, only some domestic bank weakened. The second wave didn't spare the Thai money and stock market. Foreign investors took away their capital from the Thai economy and companies transferred their investment into the parent country. Amount of the disinvestment exceeded 2 billion US$ during two months. Real economy was affected by the third wave which appeared first time in export reduction. The Asian countries' (including Thailand) export fell as western states' import sharply reduced. The loss of the export had negative impact on incomes, which resulted, with the high prices of the world market, the shrinking of the import. Export reduced with 12.7%, import reduced with 21,8%. As foreign trade contributed significantly to the GDP economic growth not only reduced but turned negative in c2009. Decay was 2.3% compared to 2008. The first steps against the crisis came after the election which was in the end of 2008. Main points of the packages were the reduction of expenditures, tax reduction, and other fiscal actions. Concrete steps were the one-time support for low-income households (2000 bath), for retirement (500 bath) and for rural medical voluntaries (600 bath) which were rather symbolic than real help. Real help was that when public transport, water and electricity became free for city dwellers. Furthermore 490 km roads were built on the rural area, rivers and bridges were renovated, vehicular and logistic systems were developed. Tourism, food industry and SMEs were supported. Policemen got flat, retraining system was built up for unemployed persons, education and public health was developed. The amount of the packages was 1,700 billion baht. In 2010 the Thai economy broadened with 7,8% despite of the waited 4%. Living standard grew with 20%. We can say about foreign trade that there was not any sign of the crisis which helped the regeneration of the economy. For these, however, the Thai government paid a lot. External debt increased with 10% in the ration of GDP and it will increase until 2013 when it reaches the 60% of the GDP.

Malaysia is a strongly opened country; therefore foreign markets changes influence significantly its economy. Until world economy expanded, the Malay economy expanded as well. Annual growth of it GDP was 6%, inflation rate was between 1 and 4%, unemployment rate was under 4%. Export expanded with annually 16% import with annually 20% which increased the vulnerability of the economy. When international trade started to shrink, Malay export decreased and the performance of the economy worsened. Its GDP growth not only moderated but relapsed with 1.7%. Enormous decrease of the foreign direct investment (81.2%) had also effect on the GDP beside trade; and portfolio investment lessened as well and therefore current account balance became negative. Its capital and financial account worsened with 240 billion ringgit as well. 10% of its foreign exchange reserve was done because of the saving of the ringgit. (It was successful). So the government had to work out stimulus programs. Tax reduction, custom reduction, salary boost for public servants, supporting of the house-building, developing of the infrastructure and education standards, setting up of the microcredit program, training of the unemployed persons was the part of these programs. Because of these programs (and because of the diversification of the trade partners) Malay economy started to increase, in 2010 its output was 7.8% higher than in 2009. National reserve reached the 10 million US$. Export expanded with 33% import with 48.6%.

4. Conclusion

The current crisis found more prepared Asian countries than the crisis in 1997. Economic growth exceeded 5% year to year, external debt reduced, budget balance was positive and states increased significantly their international reserves. Therefore when the first sign of the crisis emerged in the area in 2008 they were able to take actions against it. Asian states didn't used saving programs; their packages were called stimulus package which shows the type of their crisis management as well. Governments worked out welfare programs without exception (these included tax reduction, steps against the poverty or free public utilities), supported enterprises in order to create and hold workplaces and of course they created new jobs through infrastructural investments as well.

Their world economic integration rate is different, but their trade relationships strongly intraregional, therefore when the import demand of the western countries decreased, the intraregional trade helped the recovering of their trade balance. Moreover, in 2010 they were able to extend their import and export as well. Living standards reached the level of 2008 in each analyzed country.

In summary we can say that these states well managed the crisis but they needed so good economic conditions for it, with which governments were able to admit extra welfare spending stimulating programs which were financed by them.

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Problems of External Balance of Selected EU Member Countries

Pavel Nezval
Silesian University in Opava
School of Business Administration in Karvina, Department of Economy
Univerzitní náměstí 1934/3, Karvina, Czech Republic
nezval@opf.slu.cz

Abstract
This paper addresses the problem of external economic equilibrium, as it expresses the current account balance of payments. In a sample of small and large economies of the EU27 member countries, it seeks to uncover the causes of external imbalances in some member countries of the EU27. The article shows that the root cause of imbalance is the coexistence earning account deficit and foreign trade deficit. Next, it is clear that countries with external economic imbalances reported surplus in trade in services and deficit in trade in goods. In this context author means that the possible cause of the external imbalance are the current decline in the competitiveness of the economy and efforts to increase the share of services in the economy.

Keywords: *External economic balance, current account balance of payments, the goods trade balance, services trade balance, EU member countries*

JEL codes: *F10, F32, F34*

1. Introduction

The global economic crisis of the years 2008-2009 revealed a fundamental problem functioning of many developed countries. Most of them financed their growth by emissions debt; many of these countries have problems with his repayments. Greece in this case is a cautionary event. But when we look at the evolution of current account balances of OECD countries, then we find that the "sick countries" are much more.

In my essay I come from the fact that long-term passive balance of payments current account balance shows the deepening indebtedness of the country and a country that apparently does not produce enough funds to pay down debt.

I believe that the current crisis the euro area is derived from such development.

The following article analyses the trade balance, income balance account and current account two groups of countries. The smaller member countries of the euro area, which add to the Czech Republic and the group of large euro area member states, which add to the UK.

2. A structure of current account balance of payment and external balance of the economy

The current account balance of payment consists of sub-account trade balance, balance of services, income balance and current transfers. If the account balance of trade in goods and account balance of trade balance in services are clear, then the account balance of income is more complex.[57]

Sub-account income includes both cash flows associated with the implementation of FDI in the country of foreign firms or domestic firms abroad the profit and dividends, as well as transfers to pay foreign workers and domestic workers from abroad and interest on loans received from abroad or paid abroad.

Apart from the transfer of wages and salaries, the income balance includes cash flows associated with the development of the economy through FDI or hedged debt path. Individual countries can then either a recipient of capital or capital exporter.

In addition, there may occur the fact that private sector capital is exported, but the public sector (government) capital imports - it borrows abroad. This situation is typical for most economically developed countries.

Income account deficit may be offset by a surplus in the accounts of foreign trade. Trade surplus is a key factor in ensuring the country's external balance. If a country achieves the trade surplus, it provides assurance to investors and borrowers to be able to repay their debts.

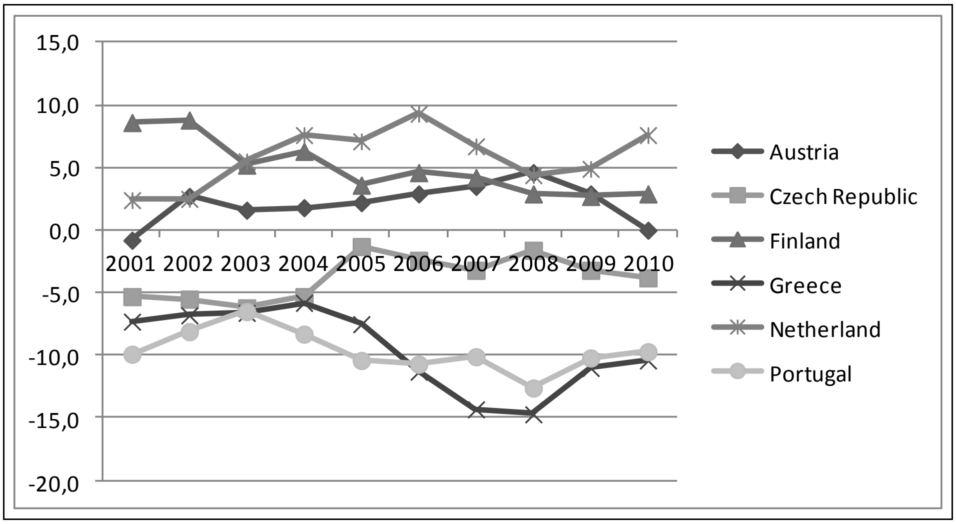
However, asset accounts may not cover foreign trade deficit in income account and current account balance of payments displayed a deficit.

The current account deficit is balanced by the financial account surplus. If not, the country's credibility falls. FDI to the country and avoid to get a loan (even the current account financial account) is still difficult (such as higher interest rates). The economy is in deep external imbalances.

The main indicator that provides comprehensive information on external debt and balance is the country's share of current account balance in % of GDP. This indicator statistics follow the OECD and its development for both groups of countries shows the graphs in Figures 1 and 2.

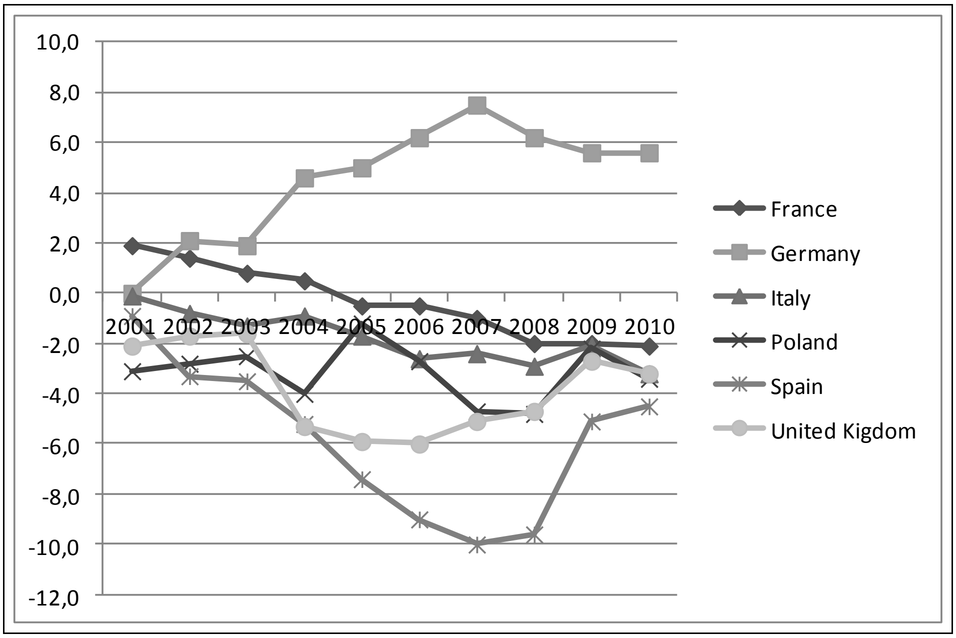
[57] Subaccount of current transfers will be abstracted in the text.

Figure 1: Current account balance of payment as a percentage of GDP (small countries of EU27)



Source: OECD, http://dx.doi.org/10.1787/20743920-table5

Figure 2: Current account balance of payment as a percentage of GDP (big countries of EU27)



Source: OECD, http://dx.doi.org/10.1787/20743920-table5

Figure 1 shows that small EU-27 countries split into two groups. Austria, Finland and the Netherlands show positive value indicators (even with different long-term trend). The Czech Republic has no negative indicators in its tendency to decrease, while Greece and Portugal show a much higher negative values with a tendency to deteriorate.

Development in selected major economies is shown in Figure – 2. Only Germany has a positive value indicators and it is rising. France showed a positive value in 2001-2004, then falling into negative territory.

The same trend can be observed in the case of Italy and Great Britain, while in the case of Great Britain is seen deeper decline to reverse the adverse trends (years 2006-2009). A similar trend can be seen in the case of Spain, but reaches the lowest values of the indicator.

Causes of the development may indicate evolution of the structure of current account balance of payment. The following table's shows in what position are selected EU member states.

Table 1: Development of the current account balance. EU - small countries (billion U.S. dollars, CIF)

Countries		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	TB	3,9	9,6	9,2	11,5	12,3	16,1	22,9	26	17,6	16,8
	EB	-5,4	-3,9	-4,8	-5,5	-6,2	-7,3	-9,8	-5,8	-7,2	-5,6
	CAB	-1,5	5,7	4,4	6	6,1	8,8	13,1	20,2	10,4	11,2
Czech	TB	-1	-0,9	-1,2	1	3,6	4,5	4,9	5,5	8,1	6,3
Republic	EB	-2,3	-3,3	-4,6	-6,7	-4,8	-7,5	-12,7	-10,2	-12,7	-12,4
	CAB	-3,3	-4,2	-5,8	-5,7	-1,2	-3	-7,8	-4,7	-4,6	-6,1
Finland	TB	11,7	12,6	11,2	12,4	8,1	9,8	12,6	10,5	4	3,1
	EB	-0,9	-0,9	-3,2	-0,6	-1,6	-1	-1,9	-3,6	0,9	0,8
	CAB	10,8	11,5	8	11,8	6,5	8,8	10,5	6,9	4,9	4,3
Greece	TB	-17,6	-20,5	-24,3	-23,6	-22,3	-28,4	-41,2	-49,1	-36,6	-26,8
	EB	8,1	10,8	11,5	10,5	4	-1,4	-3,6	-2,1	0,6	-3,8
	CAB	-9,5	-9,7	-12,8	-13,3	-18,3	-29,8	-44,8	-51,2	-36	-30,6
Netherland	TB	23,2	28,8	33,9	45,1	54,5	52,5	64,5	72,7	54,1	58,3
	EB	-9,9	-17,4	-3,4	3	6,3	10,5	-8,1	-29,5	-19,8	-6,3
	CAB	10,3	11,4	30,5	48,1	48,2	63	52,4	37,2	34,3	52
Portugal	TB	-12,3	-11	-11	-15,5	-18,1	-17,5	-18,6	-25,5	-17,6	-16,4
	EB	-0,1	0,1	0,5	0	-1,7	-4	-4,9	-6,4	-8	-6,2
	CAB	-12,4	-10,9	-10,5	-15,5	-19,8	-21,5	-23,5	-31,9	-25,6	-22,6

Notice: TB-Trade balance, EB-Earning balance[58], CAB-Current account balance of payment
Source: OECD, http://dx.doi.org/10.1787/888932559239, and http://dx.doi.org/10.1787/888932559296 , author´s calculations

[58] EB is calculated as the difference between CAB and TB. EB thus comprehends current transfers. Data are not available to OECD statistics.

Table 1 shows the development of the balance of payments current account balance of selected small EU countries, except for the Czech Republic, member of the euro area. As shown in countries such as Austria, Finland and the Netherlands show a surplus account, the income balance deficit is covered with high trade surplus.

On the other hand, countries such as Greece and Portugal show a long-term current account deficit, while a high deficit in trade, which recorded deterioration in the income balance account. This may reflect the growing volume of interest paid to foreign countries.

Czech Republic has also reported a current account deficit, but at a lower level in comparison with Greece and Portugal and on the other hand, since 2004, shows a growing trade surplus. The negative income balance is largely due to the repatriation of profits and dividends to foreign investors.

In comparison with Austria and the Netherlands is achieved trade surplus insufficient and the Czech Republic should focus its trade surplus increased (see details Nezval, 2011).

Table 2: Development of the current account balance. EU - big countries (billion U.S. dollars, CIF)

Countries		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
France	TB	15,4	22,4	15,7	8,8	-12,7	-23,7	-40,6	-59,9	-48,2	-59,3
	EB	8,2	-5	-1,5	1,6	2,2	10,8	14,5	9,9	9	14,3
	CAB	23,6	17,4	14,2	10,4	-10,5	-12,9	-26,1	-50	-39,2	-45
Germany	TB	37,7	91,7	96,3	135,2	143,6	164,6	235,8	226,6	165,6	176,7
	EB	-37,6	-50,8	-48,7	-10,2	-5,1	16,8	15	2,3	23,9	7,4
	CAB	0,1	40,9	47,6	125	138,5	181,4	250,8	228,9	189,5	184,1
Italy	TB	15,6	11,3	8,3	12	-1	-15,2	-5,4	-18,7	-11,1	-39,4
	EB	-16,2	-21,1	-27,9	-28,4	-28,5	-32,9	-46,4	-46,7	-30,3	-32,3
	CAB	-0,6	-9,8	-19,6	-16,4	-29,5	-48,1	-51,8	-65,4	-41,4	-71,7
Poland	TB	-7,2	-6,8	-5,2	-4,9	-0,6	-6,2	-11,7	-21,2	0,7	-4,6
	EB	1,3	1,3	-0,3	-8,4	-6,6	-6,9	-14,8	-13,8	-17,9	-16,4
	CAB	-5,9	-5,5	-5,5	-13,3	-7,2	-13,1	-26,5	-35	-17,2	-21
Spain	TB	-15,4	-14,7	-21,2	-41,8	-59,4	-78,7	-97,3	-93,7	-27,3	-29,5
	EB	-8,6	-7,8	-9,9	-13,1	-23,7	-32,4	-47,3	-60,9	-48,2	-34,5
	CAB	-24	-22,5	-31,1	-54,9	-83,1	-111	-145	-155	-75,5	-64
United	TB	-34,5	-42,2	-43,1	-59,8	-77,6	-75	-85,4	-73,7	-39,9	-61,5
Kingdom	EB	4,2	14,7	13,1	14,3	18,5	-4,6	16	37,9	8,5	4,6
	CAB	-30,3	-27,5	-30	-45,5	-59,1	-79,6	-69,4	-35,8	-31,4	-56,9

Notice: TB-Trade balance, EB-Earning balance, CAB-Current account balance of payment.
Source: OECD, http://dx.doi.org/10.1787/888932559239, and http://dx.doi.org/10.1787/888932559296, author´s calculations

Table 2 contains the development of the balance of payments current account balances of the big EU countries, except Great Britain euro area members. The table shows that the only country that is not in the position of the debtor and has a current account surplus and active foreign trade balance, Germany. Other countries are in a debtor position.

It turns out that the large euro area countries, particularly Italy and Spain have problems with external economic balance, similarly, Great Britain, standing outside of euro area. Germany is a country with a contrary position by the creditor.

For selected small economies have problems with external balance Portugal and Greece. The Czech Republic is a country that is catching up on other member states and thus a negative current account balance is over the specified period of typical development. It shows very different trends of Czech foreign trade balance on one hand and Greece and Portugal on the other side.

Although Germany's fourth largest economy in the world (Word Bank, 2011), outside the euro area balance determine the other big member states. Therefore, even in the euro area debtor position towards the rest of the world.

3. Export of services and external economic balance[59]

Tables 1 and 2 show the balance of trade in goods and services in total. But when separated balance of trade in goods and services trade separately, then comes along an interesting sight. Most countries that have problems with external balance show a surplus in services trade and the deficit in trade in goods.

Table 3 shows the evolution in files of small EU27 member states. It is obvious that countries with high external imbalances Portugal and Greece really have high trade deficit in goods that are active in trade in services are not able to cover.

Only in the case of Austria covers asset balance of services trade deficit of foreign trade in goods.

In the case of the Czech Republic, Finland and the Netherlands, active balance is achieved; both in trade in goods and in the case of trade in services.

In the major economies of the EU27 is the development, as shown in Table 4, more explicit.

All major economies except Germany show a growing deficit in trade in goods that are an asset in the balance of trade in services is not able to cope. In the case of Italy, trade in services has a passive balance.

Development is fundamentally different in Germany. It has a growing surplus in trade in goods, which greatly exceeds consistently achieved deficit in trade in services.

[59] The data in Tables 3 and 4 do not bind the data in Tables 1 and 2, due to different valuation methodologies in foreign trade. Unfortunately, we failed in finding statistical statements OECD data on trade in services and goods in the same methodology as indicators of current account.

Germany represents the second largest exporter in the world in 2009 (according to WTO 2011).

Table 3: Development of sub - balances of foreign trade - small countries (billion U.S. dollars, FOB)

Countries		2003	2004	2005	2006	2007	2008	2009	2010
Austria	GTB	-2,3	-0,4	-2,2	-0,2	0,5	-2,6	-5,1	..
	STB	8,9	9,9	11,6	12,2	15,3	20,8	17,9	13,3
	TB	6,6	9,5	9,4	12	15,8	18,2	12,8	..
Czech	GTB	-2,5	-0,9	1,7	1,7	4,1	2,3	7,8	..
Republic	STB	0,5	0,6	1,5	2	2,4	3,9	3,4	3,5
	TB	-2	-0,3	3,2	3,7	6,5	6,2	11,2	..
Finland	GTB	10,9	10,2	6,8	7,8	8,3	4,7	2	1,2
	STB	-0,7	0,6	-0,7	-1,1	0,6	1,5	1,8	2
	TB	10,2	10,8	6,1	6,7	8,9	6,2	3,8	3,2
Greece	GTB	-31,2	-37,6	-37,4	-42,8	-52,6	-63,8	-47,1	-41,8
	STB	13	19,2	19,1	19,3	22,7	25,1	17,6	17,5
	TB	-18,2	-18,4	-18,3	-23,5	-29,9	-38,7	-29,5	-24,3
Netherland	GTB	18,3	32,8	36,9	38,7	55,6	47,8	50	..
	STB	-0,7	4,3	6,8	9,4	12,1	13	7,9	10,2
	TB	17,6	37,1	43,7	48,1	67,7	60,8	57,9	..
Portugal	GTB	-15,3	-19,2	-23,1	23,3	-26,9	-34,2	-26,5	-26,5
	STB	4,1	5	4,9	6,3	8,9	9,7	8,3	8,9
	TB	-11,2	-14,2	-18,2	29,6	-18	-24,5	-18,2	-17,6

Notice: GTB-Goods trade balance, STB-Services trade balance, TB- Trade balance
Source: OECD, http://dx.doi.org/10.1787/20743920-table2, http://dx.doi.org/10.1787/20743920-table3, author´s calculation

It seems that only a sufficient growth of exports is able to provide a stable external economic balance.

The trade balance of member countries in the euro area then offers another idea, namely that due to membership in the euro area, some countries have lost competitiveness. Euro exchange rate and interest rates to better meet the German economy than other major economies of member countries. This resulted in the deepening of trade deficit in goods in these countries.

Development of trade in goods and services, also offers some doubts about the role of services in a modern economy. The thesis of a service economy, as a modern economy seems to be strongly contested.

Development of services, although he was able to absorb the labour released from industry, but lower productivity services (perhaps with the exception of financial services), provides sufficient resources to ensure that external economic balance.

Table 4: Development of sub- balances of foreign trade - the major economies (billion U.S. dollars, FOB)

Countries		2003	2004	2005	2006	2007	2008	2009	2010
France	GTB	-4,4	-20,5	-41,6	-50,9	-71,8	-101	-76,4	-87,5
	STB	14,1	15,1	15,3	15,4	19,8	25,1	16	15,3
	TB	9,7	-5,4	-26,3	-35,5	-52	-75,5	-60,4	-72,2
Germany	GTB	146,8	193,6	197,3	199,7	269,5	261,9	189,4	204,3
	STB	-50,7	-51,1	-48,8	-38,3	-39,4	-39,3	-26,4	-29,1
	TB	96,1	142,5	148,5	161,4	230,1	222,6	163	175,2
Italy	GTB	2,1	-1,7	-11,9	-25,4	-11,6	-13,6	-8	-39,1
	STB	-2,7	1,5	-0,7	-1,6	-9,7	-13,2	-13,7	-11,8
	TB	-0,6	-0,2	-12,6	-27	-21,3	-26,8	-21,7	-50,9
Poland	GTB	-14,4	-14,4	-12,2	-16,1	-25,4	-38,6	-10,5	..
	STB	0,2	0,1	0,7	0,7	4,8	5	4,8	3,5
	TB	-14,2	-14,3	-11,5	-15,4	-20,6	-33,6	-5,7	..
Spain	GTB	-53,4	-76,5	-96,8	-116	-138	-140	-64,4	..
	STB	26,3	27	27,6	27,9	31,6	37,7	35,4	37
	TB	-27,1	-49,5	-69,2	-88	-106	-102	-29	..
United	GTB	-581	-707	-828	-882	-855	-865	-545	-689
Kingdom	STB	36,9	52,1	46,8	64	93,6	101,4	82,1	76,2
	TB	-545	-655	-781	-818	-761	-764	-463	-613

Notice: GTB-Goods trade balance, STB-Services trade balance, TB- Trade balance
Source: OECD, http://dx.doi.org/10.1787/20743920-table2,
http://dx.doi.org/10.1787/20743920-table3, author´s calculation

At this point I have already pointed out in an article in which it was studied the effect of trade in services on export performance indicators and the degree of openness of economy (Nezval, 2011).

Countries that score high debt ratio and also the trade deficit show a lower level of export performance and a lower degree of openness than would correspond to their size. For example, Greece in 2008 reached in export performance indicators 5857 USD per habitants, The Czech Republic 16 202 USD per habitants and Austria 29241 USD per habitants.

4. Conclusion

Presented analysis of the development structure of the current account deficit of the sample of EU Member States suggests that the cause of widening external imbalances in some countries is widening trade deficit in goods, which the growing surplus in trade in services is not enough to compensate.

The cause of these developments can be seen both in the decrease of competitiveness of domestically produced goods, both in its lack of productivity in the production of services. This raises the question of whether the economy is based mainly on services can be stable and successful.

To do this we must add the efforts of governments to ensure economic growth by stimulating demand and lack of resources are furnished with growing debt.

The result is a critical situation in which many member states are located.

An example of Germany and some smaller economies suggests that the only way to grow the economy is strengthening exports of industrial products. This should ensure both the economic policies of member countries and by setting conditions in the euro area.

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Influence of the Economic Crisis on the Employment of Some Particular Employee Groups in the EU

Tímea Polgár
University of West-Hungary, Faculty of Economics
Department of International and Regional Economics
Erzsébet Str. 9., 9400 Sopron, Hungary
polgart@ktk.nyme.hu

Abstract
It is a natural impact of the economic and financial crisis of nowadays that the employment is decreasing. But the European Union has had serious employment problems since the nineties, as well. At the same time, examination of the employment situation, using only one indicator cannot be enough to characterize the actual processes on the labour markets of Europe. One opportunity for the analysis is the separated examination of the status of the special employee groups. In my paper I would like to present the employment situation of some typical groups, which can demonstrate the necessity and importance of handling divided the different employment groups.

Keywords: *Economic crisis, employment, European Union*

JEL codes: *E24, J20, J60, R00*

1. Introduction

Europe has struggled with big employment problems since the ’90s, and the today’s economic crisis deepened them onwards. The employment situation can be measured with the indicators of unemployment rate and employment rate. But these cannot be enough to characterize the individual processes on the labour market.

In this paper I would like to examine the situation of some particular employee groups, which are handled in the European Employment Strategy as having a significant importance.

The hypothesis of my article is that however, the total level of employment is decreasing - partly due to the current economic crisis; the position of some typical employee groups has become a bit better. Though in some cases the absolute number of these employees have not increased, in relation to level of total employment they have been risen.

To confirm this hypothesis I examined some data sets about the employment rate of these particular groups in the period 2000-2011. And I also tried to find out the causes of this fact.

2. The examined particular employee groups

There are a lot of well detachable employee groups which are excepted in a manner. In this paper I try to analyze four different groups, which can be categorized into two separate parts.

The selected employee groups are: women, employees in a protected age (protected age groups)[60], part-time workers and employees with a temporary contract.

In the course of the selection I tried to choose groups with definitely different attitudes and regulation.

The selected groups can form two sections. The group of women and the protected age groups are formed on the base of a determined flavour, which generally cannot be reversed. Belonging to these groups depends on the age or sex, which are given for every person.

The part-time and the temporary workers are both artificially formed groups, because the membership of them is promiscuous and can change any time.

The Lisbon Strategy – as the strategy of the EU for the first 10 years of the new millennium – already put focus on the social issues, especially on employment. This strategy was not successful in this regard, neither, but in spite of this fact the EU announced the new growth strategy for the next decade. This is the "Europe 2020" which also puts great emphasis on the employment and the related questions of education, impoverishment or social exclusion.

With demonstration of some data sets about the above-mentioned employment groups I try to draw the attention how different they can behave and of course I am looking for the answers to why they do that.

The following graphs are edited on the base of Eurostat data sets with the methodology to compose chain indexes from employment data presented in absolute numbers. The only exception is Figure 4, where the platform data set was accessible in percentages, and the point of reference was the level of employment in the total population.

All but one data sets are defined for the whole population of the European Union, only in the case of Figure 4 data are counted for the population aged 15-64, and 55-64. Data are counted as annual averages, in every case.

3. Examination of the selected groups' employment

The next subsections present graphs regarding the selected particular employee groups, with help of these data sets the specific attitude of these groups can be noted.

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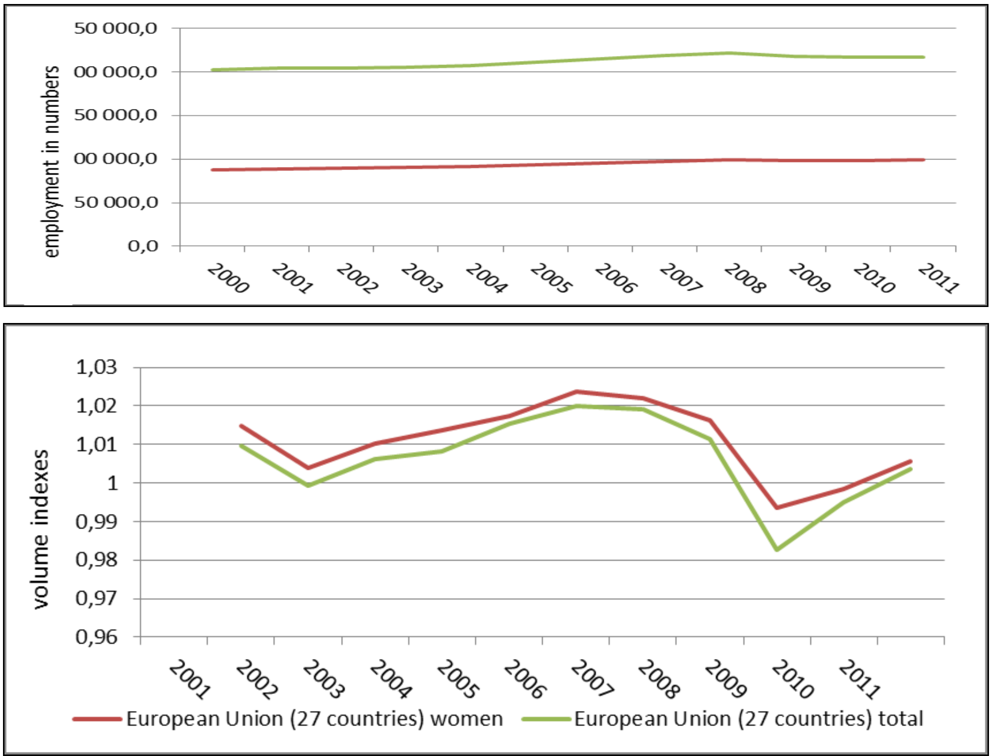
60 In this article the expression „protected age" is used for the population during 55-64 years old people in the EU. According to another terminology the protected age group is age 40 and above, with no upper age limit. This second definition is based on the US Age Discrimination in Employment Act of 1967. [The Age Discrimination in Employment Act of 1967]

Each figure contains data about the present 27 EU member states in the past decade; for the sake of comparability.

3.1 Level of female employment in the EU

Figure 1: Total employment and the employment of women in the EU



Source: Eurostat database (own editing)[61]

As the Figure 1 shows, the whole employment and the number of employed women have moved roughly together, but taking a look at the volume indexes composed from these data we can see the significant difference between the two data sets: the growing bar graph of the female employment is higher in every examined period. This fact can't have been influenced by the economic crisis, and - however the value of both indexes has been decreasing - the difference remained.

The average wages of women in the European Union are 18 % lower than the earnings of men (European Commission [online], 2010). This could explain, why the growth rate of women's employment is definitely higher (or sinking is less) than the general level of employment. In crisis companies try to cut their costs, including the costs of labor force and one of the easiest ways to do that is employing lower equipped or simply cheaper labor force.

[61] The employment is counted concerning the total population by age. Data are presented during 2000-2011.

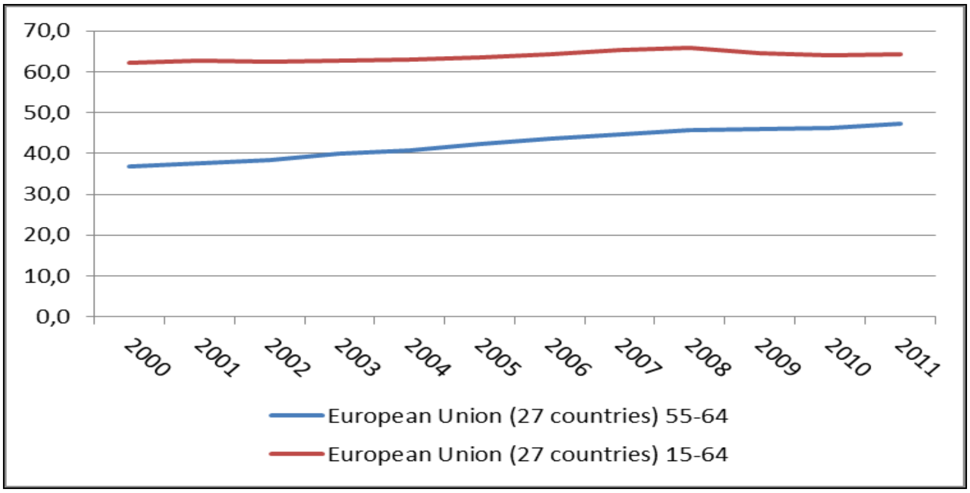
The permanent difference of the two lines at the Figure 1 assumes that the employment crisis in Europe is deeper and prior to that can be caused simply by the today's economic crisis. At the same time an evident advantage of this situation is that the Commissions priority concerning the level of female employment is prevailing. But this process does not lead automatically to the phase-out of the gender-gap concerning the difference in average wages; moreover the distinction can be fixed through this.

3.2 Level of employment of the population in protected age in the EU

The European Council on its annual spring meeting in 2001 in Stockholm "agreed to set an EU target for increasing the average EU employment rate among older women and men (55-64) to 50 % by 2010" (Presidency Conclusions, Stockholm European Council, 2001). Based on this initiative the older employees group (the EU population aged 55-64) can be regarded as a group in protected age, because the EU gives particular heed to them.

As you can see on the graph (Figure 2) the aim of the European Union to achieve a 50% employment rate regarding to the group aged 55-64 have not been succeed yet, but there is no tight coherence between this failure and the economic crisis.

Figure 2: Percentage of the employees in protected age in the EU[62]



Source: Eurostat database (own editing)

The data show that the employment of the protected age group has not been influenced by the crisis; at least, it cannot be pointed via the graph of employment rates. Of course, in absolute numbers the employment in this group has been decreasing, as well.

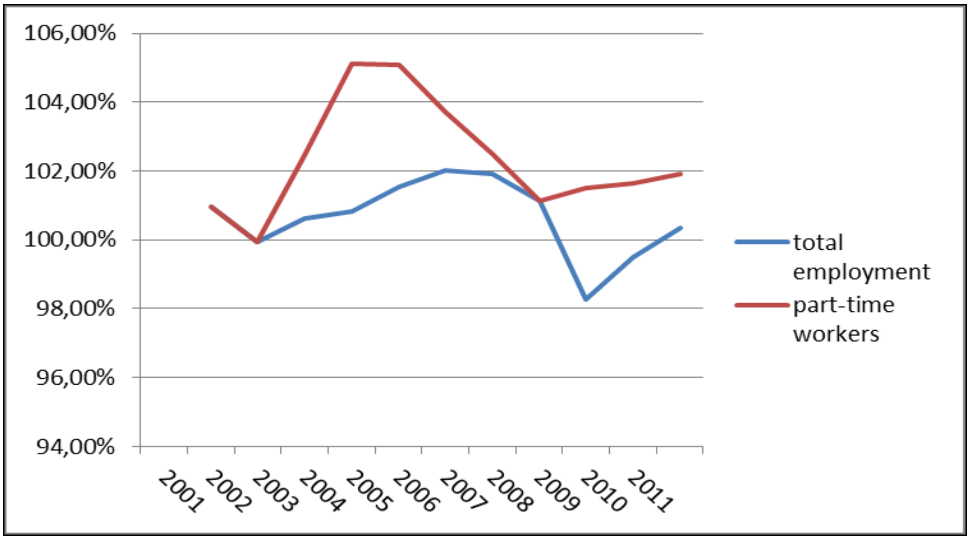
[62] percentage change calculated versus previous year.

The growing proportion of this group of employees is due to the national arrangements concerning the older workers' employment, which are acting on the EU objective. For example in Hungary protected employees (like those who have less than 5 years to the retirement age) could get the sack only in reasonable cases and they are entitled to higher amount of severance for an additional period (depending on the length of their employment relationship). (Labour Code, Hungary)

3.3 Level of part time employment in the EU

There are no legal guidelines that determine whether or not an employee is a part-time or full-time employee. It depends on the company's policy and practice of defining employees and the hours required to be considered full time. By the The International Labour Organization defined "part-time work as "regular employment in which working time is substantially less than normal".[63]

Figure 3: Increase of the total employment and the part-time employment in the EU[64]



Source: Eurostat database (own editing)

As looking at a graph showing the total numbers of employment the level of part-time employment seems to move together, on the whole. But on the Figure 3 can be seen, that in the increase there are differences between the lines. In the examined decade the flare of part-time work has been dynamic, and it widened at the period of crisis, as well. But there is also a break on the line showing part-time workers growth: in 2006, when the growth began to sink, but it was not as shocking, as in the case of total employment, where the crisis caused a significant decline.

[63] OECD: Glossary of statistical terms.

[64] percentage change calculated versus previous year.

The actual work report published by the International Labour Organization has an explanation to this growth in the field of part-time jobs. Globally, in many countries where employment growth has resumed, jobs tend to be provided on a short-term basis. Part-time work and temporary employment are on the increase in the majority of countries where employment growth has resumed. Part-time employment and temporary employment have increased in, two-thirds of advanced economies. (World of Work Report 2012)

This trend is intensified in the European Union, because EU advocates this type of employment. The ambition of the EU adopting to the changing environment is well expressed by the principle ’flexicurity’. This expression was used at first in 2006, in the Commission’s Employment in Europe report. It came from the two words ’flexibility’ and ’security’. ’Flexicurity’ is the principle tries to answer the challenges of the globalization and technical innovation. These challenges make both the employers and the employees renew themselves and press them for more flexibility. One of the instruments applied to carry out this principle is the usage of atypical work-hours – as in the frame of job sharing. (Employment in Europe Report, 2006)

The ILO Report and the ambitions of the European Union let to draw the conclusion, that growth of the part-time employment is a sort of answer to the employment crisis, but it is not a definitely good direction because of its motivations.

At the same time it is in coherence with the increase of the female employment, because part-time work is the right solution for the employment of women who have children.

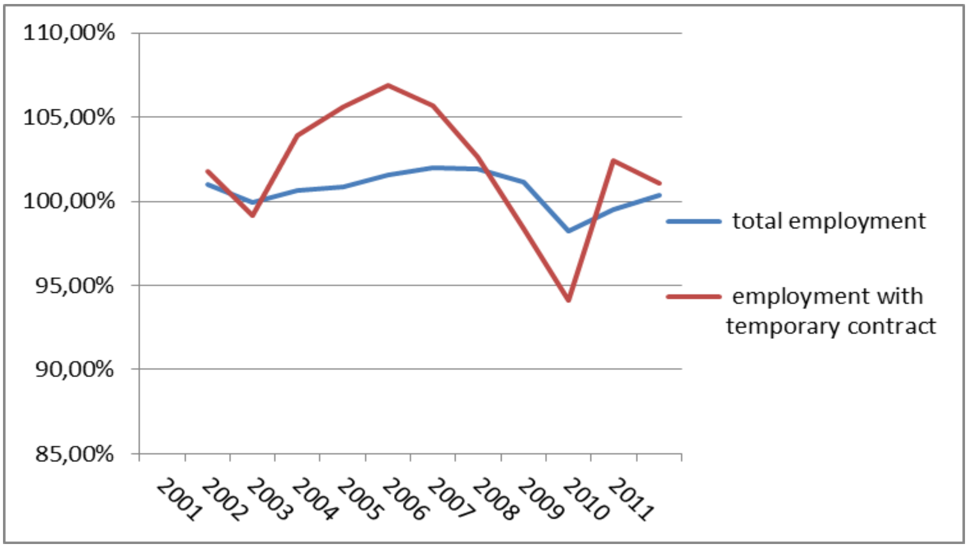
3.4 Level of temporary workers in the EU

Temporary workers are employed for a limited period whose job is usually expected by both sides to last for only a short time, for a predefined period. These workers are employed on fixed term contracts.

As in the actual World of Work Report explains, temporary employment is on the increase in the majority of countries, which are under the pressure of crisis (see subsection 3.3). There is a different situation in the European Union, as a whole. The growth of the level of temporary workers checked former than in the case of total employment and the sinking was greater and more significant.

Since the half of the decade the number of workers employed temporarily has almost been stagnating. This is contrary to the presumable outcome, namely that in a crisis companies put a greater emphasis on the short-term survival and in the frame of this principle use more often this type of employment.

Figure 4: Growth of the employment with temporary contract in the EU[65]



Source: Eurostat database (own editing)

After all, the ground of the distinct process in the EU comparing with other countries or communities can be searched in the former popularity of this type of employment. Temporary workers can be fired easier than employees who have indefinite term contracts. So in time of a crisis, when employers want to (or have to) be quit of their employees, they lay off the temporary workers, as a first step.

Accordingly temporary employment contracts are not really safe for the employees, but sometimes cover the interests of the employers.

4. Conclusion

The among-presented figures confirm that the level of total employment is a useful indicator but it suffices only for a large-scale analysis. The analysis of the particular group's employment underlines the differences and shows, that the EU's ambition to make the situation of some employee groups better is not inefficient.

On the base of the presented graph the assumption that some particular employee groups have got into a better position owing to the crisis is confirmable.

But the fact must not be forgotten, that this economic-financial crisis only has deepened the formerly existing employment crisis of the EU. So recovering from the financial crisis does not mean automatically a recovery from the employment crisis.

Partly this can be the reason why behaves in some cases the EU otherwise, like the typical average of the world. The European Union recognized the seriousness of the employment crisis much earlier than the financial-economic crisis has come.

[65] percentage change calculated versus previous year.

EU deals with the social issues permanently and from time to time makes new decisions, brings new rules to follow the changes of the labour market and the economic circumstances, as well, and tries to find solutions for the employment-related problems.

In spite of this social aspect of the crisis seem to be neglected besides the financial and monetary problems. Crisis management of EU-member states mostly put the emphasis on the restrictive arrangements, so the member state governments' attitude not to increase the common budget of the EU can be understood, because in this economic situation[66] – governments can hardly explain to their citizens the higher expenditures on common budget of the EU, parallel with the state restrictions. (Czeglédy, 2009) So the EU support turning to the employment issues is not the right, acceptable provision now.

If watching the absolute numbers about the level of employment, it can be seen that there is virtually stagnation; concerning the analysed employment groups as well. At the same time, in spite of the low level of employment (and the unemployment) is a mean problem in the European Union, in turn the analyses of the experts show an aging Europe, which has the risk that the ever less working-age population needs to support an extended number of retired citizens.

Therefore it is important and necessary to support the employment of in some criteria disadvantaged groups. And EU has to focus on the supporting actions − referred to the increase of the employment level − not to cause problems for the employees making them insecure in their workplaces.

A dynamic growth can be the key to the employment problems, but this should be long-lasting and possibly not a totally government guided but a "self-supporting" growth, because of the above-mentioned problems of the member states' management. In economic stagnation the present social system of the EU (and the systems of its member states) is not sustainable. So the effort of the EU to support the economic growth with all the possible instruments is really actual and relevant and also a solvable problem, because this issue is not a common policy[67] in the Community.

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[66] W-shaped recovery

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Perspectives of Russia's International Innovation Cooperation: A Challenge for the EU States

Andrea Porkert
The University of Economics, Prague
Faculty of International Relations, Department of World Economy
Nám. W. Churchilla 4, Prague, Czech Republic
andrea.porkert@googlemail.com

Abstract
Nowadays, innovation activity is one of the key priorities of every competitive economy. As European Union is the most important trading partner for Russia, the focus is on the potential of their common international innovation cooperation. The article provides briefly with the Russian innovation environment including financial instruments and infrastructural projects. Further, there is an overview of EU funding tools supporting the innovation cooperation with Russia. Finally, the article adverts to a well developing innovation cooperation with Finland. Regrettably, this cooperation is still oriented on exports of Finnish high-tech goods to Russia and the upgrading of existing goods together. Creating of new products and services is still in the initial stage.

Keywords: *EU, Finland, Innovation cooperation, Russia*

JEL codes: *O30, O38, O52*

1. Introduction

Since 1990 the Russian economy has changed a lot. Currently, it is a major exporter of natural gas, oil, steel and primary aluminium in the world. However, its reliance on commodity exports makes Russia vulnerable to global turmoil. After the global financial crisis in 2008, the Russian GDP growth slowed from 8.1 % in 2007 to 5.6%. In 2009 the economy contracted by 7.9%. Therefore, the modernization of the Russian economy became even more essential.

There is no doubt on the positive effect of innovative activity on long-term economic growth. Although, some evidence suggests that the link between domestic R&D investment and innovation is far stronger in large developed economies (Ulku, 2004), there is good evidence that R&D spill overs from developed countries have positive effects on the total factor productivity (TFP) growth of developing and transition economies (OECD, 2011, p. 95). It's necessary to notice that the innovation should be not only technological, but also organisational, financial, and institutional.

Despite a strong need for diversification of the economy, Russia hasn't created a modern national innovation system yet. Moreover, according to Gokhberg and Kuznetsova (2011, p. 74) „the innovation landscape in Russia in recent years has even deteriorated, which is particularly noticeable vis-a-vis the trends with major global competitors as well as nearly marginal innovation-related changes in the national economy".

In accordance with the Global Innovation Index (2012), Russia ranked on the 56th place of 125 countries in 2011. In comparison to the BRICS countries, South Africa (59th place) and India (62nd place) are worse, whereas Brazil (47th place) and China (29th place) better.

The level of gross domestic expenditure on R&D (GERD) as a percentage of GDP accounted for 1.03% in 2008. It remains on the half of the level during the late Soviet period and it is far below the Organisation for Economic Co-operation and Development (OECD) countries, where the average stands at 2.33% (OECD, 2011, p. 101).

The key actors in the field of innovation are usually businesses directly transforming existing knowledge into products, services and other economic benefits. In Russia, due to the unfavourable business environment, Russian government is the key actor in the innovation processes. The contribution of the Russian business sector to GERD has declined steadily over the last 15 years to around 29% in 2008, whereas the OECD average is around 65% (OECD, 2011, p. 102).

Within the business sector, small and medium enterprises (SME)s are important generators of innovative goods and services. In the EU, SMEs are mainly supported by the 7th Framework Programme for Research and Technology Development (RTD) 2007-2013. For illustration, SMEs produced 59.7% of value added and provided 67.4% of employment in the 27 EU member states in 2008 (European Commission, 2010). In Russia, the influence of the SME sector on the economy is substantially smaller. According to OECD (2011, p. 29), the contribution of SMEs to the Russian economy is around 12% of GDP and similar in employment which is relatively small.

Moreover, according to the Russian Innovation Index, the share of enterprises engaged in technological innovation in total industrial enterprises is under 10% in Russia, whereas in Germany it is almost 72%, in Austria 49% and in the Czech Republic 42% (Gokhberg, Kuznetsova, 2011, p. 75). Even more critical are the expenditures on technological innovation in Russian industry which according to the same source reached only 2% in 2009 and in Germany it is over 70%. Russian domestic innovative companies can be classified rather as technology adopters than international innovators.

If we look at the Global innovation Index (2012) again, we can observe that the main advantage in the innovation sphere of Russia is the quality of its human capital. In this case, Russia reached 38th place and by the quality of university education even 19th place. However, Russia still has a lack of highly qualified engineers, innovative entrepreneurs, and professional managers and the number of researchers is declining steadily.

2. Policy Framework to Stimulate Russia's Innovations

The current Russian innovation system combines elements of the Soviet centrally planned system, such as large government sector of science, predominant federal support for research, top-down decision making and governance, with contemporary market elements, such as modern technical and financial innovation infrastructure and progress in legal environment (Dezhina, 2011, p. 91). Regrettably, the R&D sector is still dominated by government budget-funded institutions and other forms of organizations with significant participation of the state.

The first governmental and non-commercial funding agency was the Foundation for Assistance to Small Innovation Enterprises (FASIE) operating since 1994. It provides funding mainly for applied research, technology development and innovation for small innovative enterprises. Annually, 1.5% of federal budget funds are allocated to this Foundation which represented USD 85 million in 2009 (OECD, 2010a).

Since 2003, the FASIE operates through the program called START supporting small business in innovative research and in 2007 it started a program called Participant of the Youth Science-Innovation Competition (UMNIK). This program supports the ideas developed by young scientists, graduate students or undergraduate students between the ages of 18 and 28. About 5000 young researchers have become the participants of the UMNIK program (Dezhina, 2011, p. 92). Unfortunately, the support of the FASIE is not much oriented on the profit potential of the enterprises which makes it not really effective.

In 2006, the Russian government created the Russian Venture Company (RVC) to stimulate venture investments and financial support of the high-tech sector in Russia. There were 48 companies in the portfolio of the nine venture funds in April 2012 (RVC, 2012). To extend its possibilities, the RVC is planning to join foreign funds and become a part of international technology networks.

Further, the Russian Corporation of Nanotechnologies (RUSNANO) was established by the government in 2007. It finances selected projects in the sphere of nanotechnologies and related industries at a stage close to market entry. During 2008-2010, the corporation approved 104 projects with aggregate budgets of RUR 347 billion. Among these projects were 92 manufacturing projects, 8 projects to establish Russian and international venture capital funds, and 4 projects to establish nanotechnology centres (RUSNANO, 2011). RUSNANO was the first entity to develop the system of international expert evaluation. It defined clear procedures for the project selection as well as for the creation of an expert pool. RUSNANO is therefore a good example of an effectively working institution in the Russian innovation field.

Important part in the innovation process plays among others the technical regulation, especially for producers who are oriented toward international markets. In 2003, the Federal Law “On Technical Regulation” radically changed the whole system of technical regulation in Russia. Its aim was to bring technical regulation in Russia into compliance with the World Trade Organization and to develop about 400 new technical regulations. Unfortunately, the reform has failed as technical regulations were developed for only about 37% of all production with required obligatory certification in Russia. In 2009, the above mentioned law has been changed, so that companies can choose to use either Russian technical regulation or foreign technical rules and standards which have been approved through a special certification procedure of the Russian government. The law amendment allows the Russian government also to implement the technical regulation of the Customs Union with Belarus and Kazakhstan and norms and rules of the European Union.

2.1 Infrastructural projects to stimulate innovations

Creating of the first types of technological infrastructure has already started at the very end of the Soviet period. Mainly due to initiative of universities or research institutes there arose some technology parks to support the formation and growth of new science-intensive firms. Distinct from technology parks abroad, in Russia they don't provide such various services for companies located there.

For a better support to technological-innovative companies, such a type of Special Economic Zones (SEZ)s were created by the Russian government in 2005. There are four such zones in Dubna (Moscow), Zelenograd (Moscow), Tomsk, and Peterhof (near St. Petersburg) till now. Companies in these zones profit from lower initial investment, lower operation costs and an enhancing image resulting from the status of being registered in the SEZ.

The results of these zones remain unclear. There are data available only on the volumes of investments from the federal budget and on the number of the SEZ residents. There are not even exact statistical data on the number of each type of infrastructure. An approximate estimates of them we can see in table 1 developed by Dezhina (2011).

Table 1: Types of Technological Infrastructure in Russia

Type of infrastructure	**Year of formation**	**Number**
Technology parks	1990	65-100
IT-Parks	2006	9
Innovation-technology centres	1997	66
Business incubators	-	About 80
Innovation-industrial complexes	1999	4
Technological village	2002	1
Technology Transfer Centres	2003	85-100
Special economic zones in technological area	2005	4

Source: Dezhina, 2011.

The very new and ambitious infrastructural project is called Skolkovo. It started in 2010 as a purely governmental project with limited representation of selected large companies. Among five core elements, there should be technical university, academy of sciences research institutes and subdivisions of leading R&D institutes, research centres, representative offices of large companies, and incubator.

Skolkovo is based on a mix of different models, such as model of Silicon Valley in the United States, and the Masdar City in United Arab Emirates. The overall hopes of this project are high. However, it seems to be rather problematical to combine different models as the various parts are taken out of their context. It is still too early to evaluate this project as the first results are not expected to be visible before 2015.

3. EU funding programmes for innovation cooperation with Russia

As already mentioned, the 7th Framework Programme for RTD (FP7) is the key instrument supporting the innovation process in the EU. Under the FP7, there was founded a project called the European Research Area Network (ERA-NET) which should coordinate national funding schemes in certain thematic fields or target at certain partner countries.

In the years 2009-2013, the ERA.Net RUS is being implemented to coordinate bilateral R&D and innovation-funding instruments with Russia. Two pilot calls were carried out in spring 2011 – the R&D call and a smaller one for innovation projects. From 68 proposals, only 11 were selected with a cumulative public support around €3.5 million. At least three organizations from three different countries had to take part in a project consortium, whereby one had to be a small innovative enterprise from Russia and one company from one of the other countries (Spiesberger, 2011, p. 148). The advantage of ERA.Net RUS is the possibility to form multinational consortia with players from different environments like companies, public research organizations, or higher education institutions.

Another example of a possibility to participate on funding activities supported by the EU is an intergovernmental network called EUREKA. It aims at supporting market-oriented R&D and innovation projects, implemented by research organizations, higher-education institutions and industry. Most projects with Russian participation are in the fields of ICT, nanotechnologies and materials, environment, and health. Nevertheless, the participation of Russian organizations in EUREKA is still rather low.

At the bilateral level, FASIE, already mentioned above, is currently running three bilateral funding schemes with EU states. The first one is with Germany, the second one with France, and the last one with Finland.

In addition to this, several EU member states have signed a document on bilateral modernization partnership with Russia. Germany agreed already in 2008, France in 2009, and Slovenia and the United Kingdom in 2010 followed by Austria, Finland, and Sweden in 2011.

On the European Union level, the Partnership for Modernisation was signed in 2010. It should help to modernize Russian economy and intensify the cooperation between Russia and the European Union. The emphasis is among others put on "expanding opportunities for investment in key sectors driving growth and innovation" (Partnership for Modernisation, 2012).

3.1 Cooperation with Finland

There are more levels of the Russian-Finish innovation cooperation. At first, we can mention the traditional research cooperation between the academic institutions, even if the researcher activity has not so far concentrated on innovation or high-tech cooperation. Some of the Finnish universities concentrate their research on the development in Russia (e.g. the Turku School of Economics, the University of Helsinki, or the Lappeenranta University of Technology). These three mentioned universities have in addition received funding from the Academy of Finland program focused on the innovation cooperation between Finland and Russia.

In order to facilitate inter-enterprise innovation cooperation, Finland created a network of innovation organizations called FinNode. Furthermore, to support networking between the innovation system of Finland and that of Russia, Finland established a FinNode unit in St. Petersburg in 2008 and a similar unit in Moscow in 2010.[68] FinNode Russia focuses on information and communication technology and software, nanotechnology, biotechnology, energy efficiency, and renewable energy (FinNode, 2012).

Besides FinNode, some Finnish companies have started operations to facilitate innovation cooperation between Finland and Russia. For example Technopolis opened a technological park in St. Petersburg in 2010 and provides business services, and consultancy for Russian enterprises starting their internationalization, and also for Finnish firms interested in Russia.

In a similar way provides its services also the Finnish-Russian Innovation Centre with the difference that it conducts regional cooperation between the Finnish city Lappeenranta and actors in the northwest Russia.

We can surely find many other Finnish organizations supporting the Russian-Finnish business cooperation. However, they usually focus rather on the facilitation of business entry of Finnish firms into the Russian market than on innovation cooperation.

For a better support of innovation cooperation, there is the possibility to get finances for joint projects on R&D and innovations. In spring 2011, the Finnish Funding Agency for Technology and Innovation and FASIE, already mentioned above, organized the first bilateral call for such projects. Among 22 applications, seven were selected to start in fall 2011. Already in December last year, the second call for proposals was launched for projects which are expected to start this summer. Because of the high interest of participants, next call for proposals is planned on this fall.

Another field offering finances for joint projects is in internationalizing nanotechnology companies operating in both Finland and Russia. The state-owned Finnish Industry Investment Ltd and the state-owned Rusnano signed an agreement on a Finnish-Russian nanotechnology investment program in 2010. This program will last 3 years and the companies should co-invest a total of €50 million.

[68] In addition to Russia, there are similar units in China, India, Japan, and the United States.

Nanotechnology is a good example of a well-functioning cooperation between Russian and Finnish companies. The Finnish investment company CapMan Russia has recently become a co-owner in a Russian nanotechnology firm Virial, which plans to develop nanotechnology goods for oil production. It is important to notice that another co-owner in Virial is the above mentioned Rusnano.

In general, Finnish companies are well known for their technological collaboration with Russia. Russia is the main target of Finnish high-tech goods and both the Russian and Finnish firms carry out the upgrading of their products. "The main motive of the Finnish firms internationalizing toward the Russian market has been the growing market, not the intellectual capital possessed by the Russian firms or individuals" (Liuhto, 2011, p. 163). However, there are also companies investing in research in Russia. For example Nokia has already a research unit in St. Petersburg and plans to open a research centre in Skolkovo[69] in Moscow.

Finally, there are a number of events aiding networking between Finnish and Russian companies. Regarding the innovation cooperation, the annual EU-Russia Innovation Forum is the most visible event. In June 2012, there will already be a 3rd one in Lappeenranta. Despite its name, the forum is rather a bilateral event and regarding one conference participant "it has become a platform which offers Russia publicity for its innovation development on EU territory. Reciprocity does not apply here, since the forum does not take place in Russia" (Liuhto, 2011, p. 162).

4. Conclusion

The innovation cooperation is still underdeveloped in Russia. There has been no serious interest in it for a long time. After the global financial crisis in 2008, we can observe a strong attempt to rebuild the innovation environment in Russia. Many new venture projects have started and we can also see more willingness and support from Russian politicians. Yet, it's too early to evaluate the results as "the fruits of innovation collaboration do not mature fast" (Liuhto, 2011, p. 164).

To create a functioning innovation system, Russia should start with improving its investment climate. That means to reduce the bureaucracy and corruption and the close relationships between political, economic, and legal decision makers. Besides, to improve intellectual property rights is a necessary condition for an innovation-friendly climate.

Creativity and entrepreneurship should be instigating already in universities and the scientific research should be able to transform to commercialized products and services. Therefore, the transformation of the Russian Academy of Sciences to a research-funding organization is recommended. As a result, the use of national R&D funding would be more effective and enhance competition between the universities.

[69] We can already find several internationally recognized corporations, such as Cisco, Ericsson, IBM, Intel, Microsoft, and Siemens in Skolkovo high technology business complex.

In addition to that, the state-owned enterprises are an important part of the Russian economy. Therefore, it would be desirable to review the manage practices of these enterprises in order to increase the efficiency and transparency of the operations.

Regarding the innovation cooperation with Russia, there have already been signed several political declarations on a cooperation with Russia, both on the EU level and on the bilateral level. However, the realisation is often not so empathic. The main reason for it is that the fundamental goals seem to differ quite a lot. Whereas Russia concentrates mainly on the technological cooperation, the EU is willing to modernize Russia in a political and societal sphere.

In order to bring together the innovation-intensive firms of Russia and the EU, Liuhto (2011, p. 165) recommends establishing a Joint EU-Russia Innovation Centre Both in Russia and in the EU. As perfect places for maximizing the benefits sees Liuhto St. Petersburg due to its proximity to the EU, and Helsinki, which is connected to St. Petersburg by high-speed trains.

The Finnish-Russian innovation cooperation is still dominated by selling Finnish high-tech goods to Russia and the upgrading of existing goods together. On the contrary, Russian companies are more seeking knowledge in their internationalization toward Finland and an access to the EU market. In general, the modernization and internationalization of the Russian economy is not able without cooperation with foreign firms. The innovation cooperation should play a key role in the process.

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Relevance of Social Regime and Globalization for Technology Spillovers in the EU

Paula Puškárová
Ekonomická univerzita v Bratislave
Faculty of International Relations, Department of International Economic Relations and Economic Diplomacy
Dolnozemská cesta 1/b, Bratislava, Slovakia
paula.puskarova@euba.sk

Abstract
The paper discusses the relevance of social regime parameterized by total social expenditures and globalization KOF indices for technology spillovers in the EU. On the basis of the cross-country data, the paper draws on the current state of knowledge and with respect to both sides of innovation process; it determines the innovation leaders and the innovation laggards. The paper continues to examine the relevance of social protection expenditures by including them into the productivity growth regression equation. The equation takes technology spillovers between the two categories into account. In its final part, the paper summarizes the key findings.

Keywords: *European Union, globalization, social expenditures, technology spillover*

JEL codes: *F43, H55; O11, O52*

1. Introduction

For few decades, the European Union has been witnessing a paradoxical phenomenon when the most solidary (socially protecting) social regimes demonstrate simultaneously the best results in innovation performance parameters, e.g. in terms of effectiveness of innovation process inputs. This phenomenon is observed to be accompanied also with higher levels of openness to globalization.

Theoretical and empirical evidence on relevance of social regime and globalization for technology spillovers is scarce. Our understanding of technology spillovers is in compliance with the common scientific perspective – technology spillovers are externalities of international technology diffusion and parameterized with respect to the derived method of technology parameterization.

Technology spillovers are shaped by several determinants, especially geographical closeness, technological congruence and local demand (Bottazzi and Peri, 2003). Local demand may shed some light also on the nexus of social regime to productivity growth as it is closely linked to income and some other welfare parameters. In this context, many scientists cite Robert Solow (1956) or more sociologically oriented Harold L. Wilensky (1975).

As for globalization linkages to technology diffusion, many scientists discuss the so called ‘channels of international technology diffusion’, namely international trade and foreign direct investment – FDI (e.g. Wolfgang Keller, 2010).

In context of technology spillover, we would like to make a comment on its specific feature compared to the common understanding of technology as commercial application of innovation. In contrast to this terminological difference, the literature does not discriminate so strictly between technology spillovers and spillovers containing pure innovation as some innovative knowledge (e.g. Bigoš a Puškár 2010, Puškár, Bigoš and Puškárová 2012) may be commercially applied after its transfer.

1.1 Parameterization of technology and technology capital

The literature exhibits three basic methods of technology parameterization:

1. input (R&D expenditures, R&D employment)
2. output (patents or more timely coherent[70] parameter – patent applications)
3. derived from the Cobb-Douglas production function (the so called total factor productivity, TFP).

The extant state of literature considers TFP as the most suitable parameter for technology spillovers research and this paper respects this approach. The calculation of absolute TFP levels is rather complicated. Therefore, in this paper, we account for TFP growth (yearly TFP %-accruals) and we derive the relevant TFP data from the TED (Total Economic Database).

Nevertheless, we do not avoid examining also inputs and output of innovation process in this paper, since we need to determine two categories – innovation leaders and innovation laggards, between which the technology spillovers occur. Thus, we apply the so called ‘combined input-output’ method in terms of the effectiveness of the innovation inputs.

1.2 Social regime and its parameterization

In this paper, we draw on the typologization of social regimes as presented by Esping-Andersen in 1990, i.e. on the base of work decommodification and stratification indices. Ergo, we work with social-democratic model (Sweden, Finland, Denmark), conservative (Germany, Austria, BENELUX and France), and liberal (United Kingdom, Ireland). We further apply the southern regime as demonstrated by Ferrera (1996) and Bonoli (1997) (Italy, Spain, Portugal, Cyprus and Malta). Greece was excluded from our modelling based on lack and unreliability of statistical data.

As for social regimes in postcommunist European Union states, we distinguish between neoliberal type (Estonia, Latvia, and Lithuania), embedded neoliberal type (Czech Republic, Slovakia, Hungary, Poland, Romania, and Bulgaria) and

[70] The administration process of patent registration is rather time consuming and may last up to few year. Thus, many researchers use number of patent applications in order to respect time causality between inputs and output.

neocorporativist type in Slovenia as introduced by Dorothee Bohle and Bela Greskovits (2007).

These social regimes will be respected also when determining the two categories necessary for exploring spillovers – innovation leaders and laggards (part 2 of this paper).

As for the parameterization of social regime, we follow Esping-Andersen's conclusions and determine two methods: the efficiency and the expenditure (payment) method. Using the efficiency method, most commonly used parameters are income gap, poverty gap, or welfare indicators. Using the payment method, total social protection expenditures are prevailingly applied. In this paper, we concentrate exclusively on the payment parameterization of social regime.

In context of payment parameterization, we would like to point out the causal nexus of social protection expenditures to governmental debt. Social protection expenditures are namely (at least to some extent) restricted by the public indebtedness level. Thus, we co-include debt into our model.

1.3 Globalization effect on technology spillovers and parameterization of globalization

As already mentioned in the Introduction, literature does not exhibit explicit evidence on globalization effects on technology spillovers. However, we can search for their linkage through e.g. empirical studies on international trade effects on technology spillovers (e.g. Rodriguez and Rodrik, 2001). Among most cited studies rank Jonathan Eaton and Samuel Kortum's papers (2001, 2002) who verify that international trade augments the possibility of international technology diffusion. For further evidence on international technology spillovers through exports, we recommend papers of Andrew B. Bernard a J. Bradford Jensen (1999), Clerides et al (1998) and Johannes van Biesebroeck (2005), and for further evidence on international technology spillovers through imports, please see also Coe and Helpman (1995) and Acharya and Keller (2008). Most of these papers explore also effects of FDI as alternative to the international trade on technology spillovers.

Although Wolfgang Keller (2010) denies the thesis that international trade discriminates properly between developed and developing countries because of other factors – geographical localization in particular, as well as because of possible offset of exported and imported technology spillover effects.

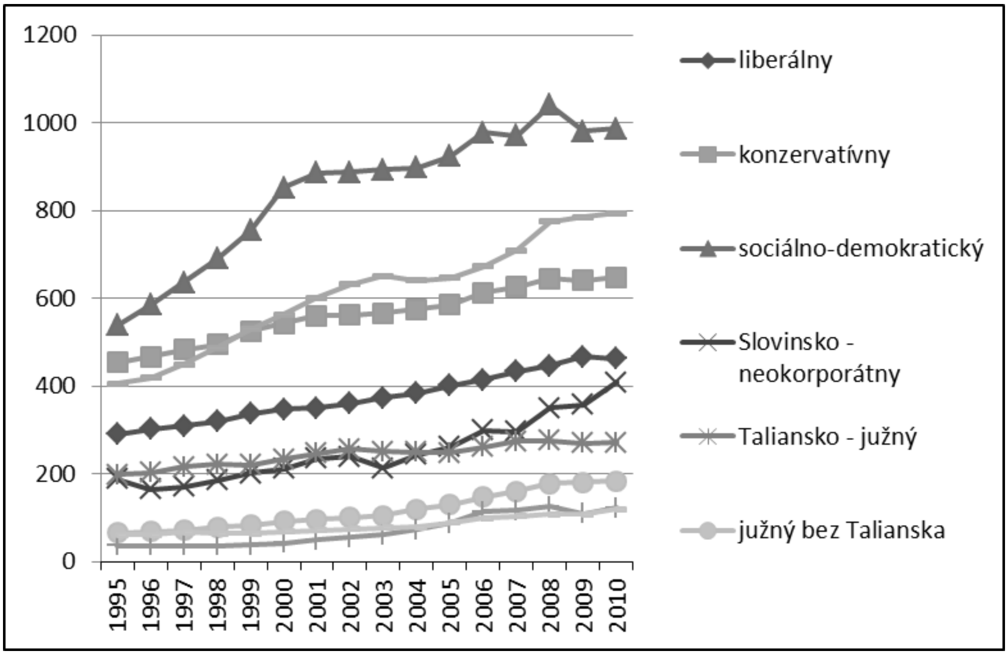
More general approach to the globalization effects on technology spillovers can be derived from the so called 'systems of innovation' approach that studies specific qualitative capabilities for technology spillovers (e.g. Mancusi 2008).

In compliance with current trends in globalization parameterization, we apply KOF indices as presented by Axel Dreher (2006) and revised by Axel Dreher et al. (2008)

2. Determining of innovation leaders and innovation laggards

In order to examine technology spillovers, we need to determine categories between which the technology spillovers occur. In this context, we have decided to account for both innovation inputs as well as innovation outputs. Our decision resulted from observation of data for innovation inputs and innovation output separately that does not lead to clear determination of two categories (Figure 1).

Figure 1: Development of total R&D expenditures in EU social regimes, in PPP, constant 2000 prices, p.c.



Source: Author's calculations, EUROSTAT database

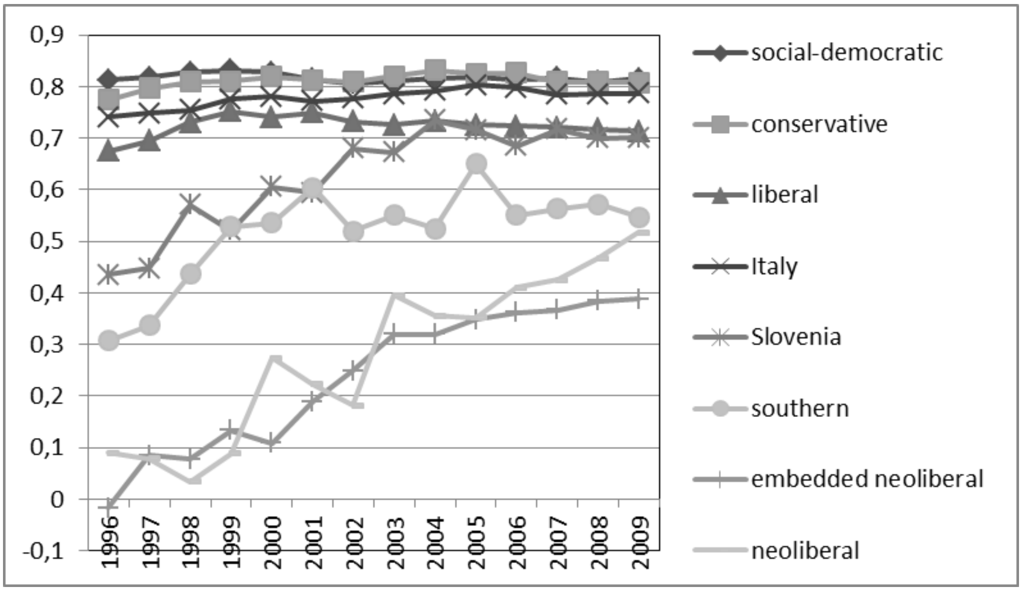
Since we follow the common technique of exploring technology spillovers between two groups, we decided to keep the final model less complex and thus, searched to discriminate only two categories. Thus, we apply effectiveness of innovation inputs measured as elasticity of innovation output on innovation inputs.

2.1 Effectiveness of R&D expenditures

Figure 2 demonstrates the effectiveness of total R&D expenditures (in PPP, p.c., in constant 2000 prices) measured as elasticity of innovation output – number of patent applications per million inhabitants – on these R&D expenditures in social regimes.

The calculated elasticity does not reach the level 1, thus, it verifies the thesis that in order to produce one patent, more than one unit of R&D expenditures is needed throughout the whole period 1995-2010.

Figure 2: Development of patent elasticity on total R&D expenditures in EU social regimes



Source: Author's calculations, EUROSTAT database

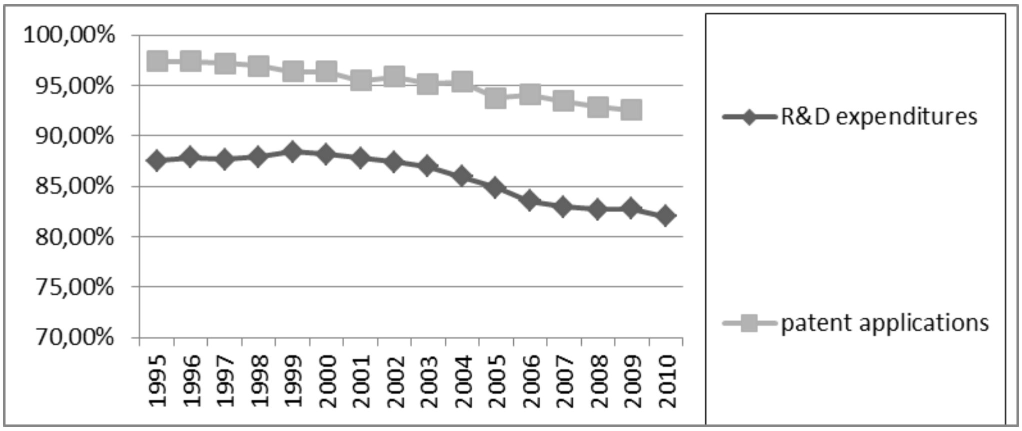
The most stable elasticity is observed in social-democratic, conservative, and liberal regimes, as well as in Italy. Slovenia converges to these levels by diverging from levels those of other southern regime countries.

Visually, the other countries are significantly less effective in patent applications filing, though converging to the effectiveness of innovation leaders.

Thus, we decided to treat the first group as innovation leaders and the less effective group as innovation laggards and in our modelling presented in the part 3 of this paper, we will explore technology spillovers between these two categories.

We challenged these categories if they reflect the inequality in R&D expenditures and patent applications volume between these two categories what is in compliance with the technology spillover exploration technique applied by Keller (2010). The ratio of innovation leaders on total R&D expenditures and total number of patent applications in all 26 countries in question is demonstrated by Figure 3.

Figure 3: Development of ratio of innovation leaders on total R&D expenditures and total number of patent applications in the EU

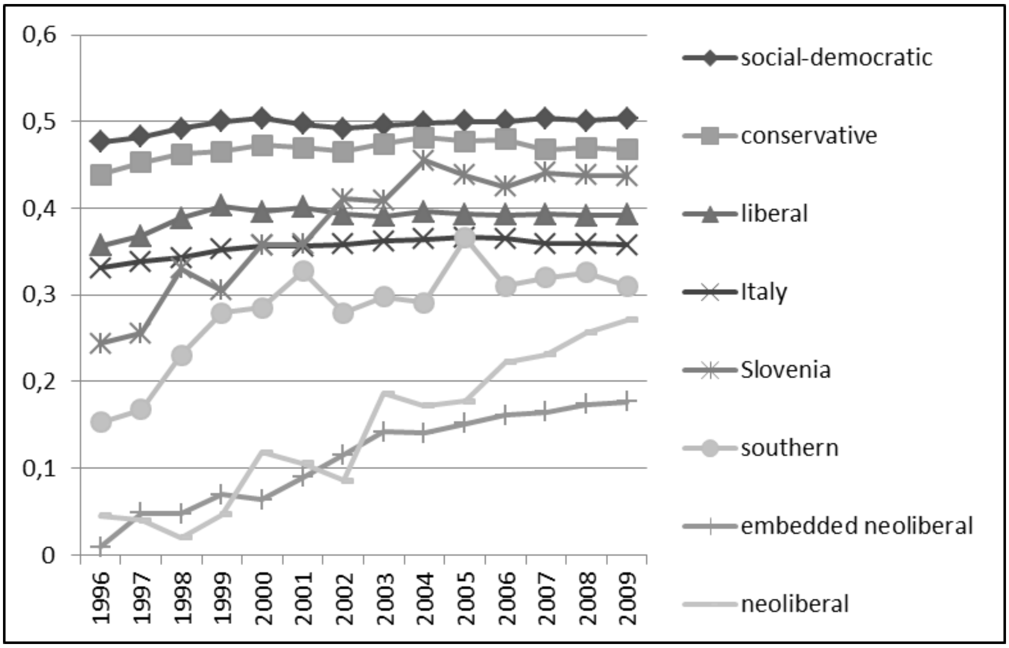


Source: Author's calculations, EUROSTAT database

2.2 Effectiveness of R&D employment

Similarly to the patent application elasticity on innovation expenditures, we test the two categories also on patent application elasticity on employment in R&D (per million inhabitants).

Figure 4: Development of patent application elasticity on R&D employment in EU social regimes



Source: Author's calculations, EUROSTAT database

The calculated elasticity levels (Figure 4) also declares as the most effective and more importantly stable social regimes the social-democratic, conservative, liberal and Italian regime. Slovenia converges to their levels.

Although innovation laggards from the southern regime do not demonstrate big difference compared to the innovation leaders, it is clear that the development in the southern regime exhibits similar trajectory and instability as in embedded neoliberal and neoliberal regimes. Thus, we decided not to regroup the EU social regimes between the two in the part 2.1 formed categories.

We further observe that the patent application elasticity on R&D employment is significantly lower than the elasticity on innovation expenditures – almost twice as lower (e.g. by innovation leaders). Implicit, we may conclude that patent application growth is more dependent on financial capital input than workforce input.

3. Analysis of relevance of social regime for total factor productivity growth

We apply linear regression technique and parameters as stipulated n the parts 1.1 - 1.3. We use some abbreviations – ‘lead’ for innovation leaders, ‘lag’ for innovation laggards, INNEX for R&D expenditures (BINNEX are business R&D expenditures, GINNEX are governmental R&D expenditures), INNEMPL for R&D employment, PAT for patent applications, SOCEX for total social protection expenditures.

3.1 Mutual correlations of model variables

In our model, we consider one-way technology spillovers, i.e. innovation laggards as net receivers of technology spillovers. Thus, we study paired regression relations, i.e. mutual correlations of selected parameters only for innovation laggards (Table 1).

Table 1 Correlation table of selected variables for innovation laggards (P-Value in brackets)

	KOFglob	KOFecon	KOFsoc	KOFpol	∆ TFP
∆ TFP lead	-----	-----	-----	-----	0,8958 (0,0000)
INNEX	0,9348 (0,0000)	0,9228 (0,0000)	0,9154 (0,0000)	0,9420 (0,0000)	- 0,5779 (0,0240)
- BINNEX	0,9205 (0,0000)	0,9123 (0,0000)	0,8941 (0,0000)	0,9285 (0,0000)	**- 0,5413 (0,0372)**
- GINNEX	0,8781 (0,0000)	0,8620 (0,0000)	0,8571 (0,0000)	0,9022 (0,0000)	- 0,5962 (0,0190)
INNEMPL	0,8667 (0,0000)	0,8550 (0,0000)	0,8503 (0,0001)	0,8709 (0,0000)	- 0,6541 (0,0082)
	KOFglob	**KOFecon**	**KOFsoc**	**KOFpol**	**∆ TFP**
PAT	0,9634 (0,0000)	0,9523 (0,0000)	0,9560 (0,0000)	0,9478 (0,0000)	**- 0,5949 (0,0193)**
∆ TFP	- 0,4937 (0,0614)	- 0,4664 (0,0797)	**- 0,5752 (0,0249)**	- 0,4073 (0,1319)	-----
HDP	0,9607 (0,0000)	0,9468 (0,0000)	0,9391 (0,0000)	0,9760 (0,0000)	**- 0,5412 (0,0372)**
SOCEX	0,9520 (0,0000)	0,9369 (0,0000)	0,9500 (0,0000)	0,9390 (0,0000)	- 0,6468 (0,0092)
DEBT	0,1004 (0,7219)	0,0843 (0,7651)	0,2187 (0,4335)	-0,0487 (0,8631)	**- 0,5173 (0,0483)**

Source: Author's calculations, databases of EUROSTAT, IMF and TED

Table 1 demonstrates strongest correlations of average TFP growth in innovation laggards with average TFP growth in innovation leaders and with average social expenditures in innovation laggards.

Table 1 further verifies that TFP growth in innovation leaders correlates with TFP growth in innovation laggards positively. As for other variables (namely globalization, debt and social expenditures), we see the reason for their negative correlations with TFP in overbalance of stronger negative effects compared to positive effects generated by globalization and social expenditures – for partial analysis on globalization effects on technology spillover see Keller (2010). However, high social protection levels may avert FDI and block channels of international technology spillovers.

As for globalization indices, we observe strongest paired correlation of TFP with social effects of globalization – KOFsoc, i.e. the index reflecting social interactions, personal contact and communication that all are considered channels of technology spillovers.

KOF indices are artificially developed and thus, we do not expect them to reflect all the globalization effects always reliably. In other words, some effects – crucial for technology spillover – may be offset in the indicator. Thus, we decided not to take results of Table 1 as definite and test all the globalization indices for statistical relevance in our model.

3.2 Model and Data

We start our modeling by formulation of linear multiple regression's Equation 1 that respects results of the Table 1.

$$\text{TFP lag} = \alpha - \beta 1 * \text{SOCEX lag} - \beta 2 * \text{KOF lag} - \beta 3 * \text{DEBT lag} + \beta 4 * \text{TFP lead} \quad (1)$$

Testing each of the KOF lag indicators in the model (Table 2), we have come up with the only model statistically significant at at least 90 % level – by the KOFpol.

Table 2 Estimated coefficients and P-Value (in brackets) and for different KOF indices in the model presented in the Equation 1

	KOFglob lag	KOFecon lag	KOFsoc lag	KOFpol lag
∆ TFP lag	0,170723 (0,4402)	0,0618996 (0,6646)	0,0965192 (0,7265)	**0, 358369 (0,0813)**

Source: author's calculations, database EUROSTAT and TED

Thus, we provide further details to the final model (Table 3 and 4).

Table 3 Estimated coefficients and statistical significance of the model variables

Parameter	*Estimate*	*Standard Error*	*T Statistic*	*P-Value*
CONSTANT	-10,1534	10,6686	-0,951707	0,3637
SOCEX lag	-0,00728027	0,00336515	-2,16343	0,0558
KOFpol lag	0,358369	0,184877	1,93842	0,0813
TFP lead	0,582739	0,250404	2,3272	0,0423
DEBT lag	-0,162481	0,0867027	-1,87401	0,0904

Source: author's calculations, database EUROSTAT, TED and IMF

Table 4 Analysis of variance of the model

Source	*Sum of Squares*	*Df*	*Mean Square*	*F-Ratio*	*P-Value*
Model	48,833	4	12,2082	19,99	0,0001
Residual	6,10624	10	0,610624		
Total (Corr.)	54,9392	14			

R-squared = 88,8855 %

Standard Error of Est. = 0,781424

Mean absolute error = 0, 538822

Durbin-Watson statistic = 1,48202 (P=0,0563)

Source: Author's calculations, database EUROSTAT, TED and IMF

The regression model equation is:

$$\mathbf{TFP\,lag} = -10,1534 - 0,00728027 * \mathbf{SOCEX\,lag} + 0,358369 * \mathbf{KOFpol\,lag} - 0,162481 * \mathbf{DEBT\,lag} + 0,582739 * \mathbf{TFP\,lead\,(2)}$$

This model demonstrates no studentized residuals.

The coefficient of determination is of 88,8855 %. The standard error of estimation is 0,781424 and the average value of the residuals (mean absolute error) is at the level of 0,538822. Durbin-Watson statistics indicates no serial autocorrelation of the residuals at the 95,0 % confidence level.

Because of the coefficient of determination, we can conclude that the model verifies relevance of social protection expenditures for productivity growth in innovation lagging countries in the EU with respect to globalization and TFP growth in innovation leaders at the 88,8855 % confidence level.

4. Conclusion

In this paper, we tested the nexus of social protection expenditures and globalization indices for total factor productivity growth in context of technology spillovers between innovatively worse and better performing countries in the European Union.

Firstly, we recognized the scarcity of literature on this matter. Further, based on the effectiveness of R&D expenditures and R&D employment measured by elasticity of innovation output, we split the EU member states (excluding Greece) into two groups – innovation leaders and innovation laggards. We are aware of an alternative method of determining the two categories, namely data envelopment analysis. This categorization was applied in order to account for technology spillovers in the final modeling.

Subsequently, we demonstrated strong correlations between social protection expenditures and TFP. Correlation of TFP with globalization indices (and debt as causal conjunct of social protection development) was negative by all the indices and ambiguous. Nevertheless, we included both globalization parameter and debt into the model and tested each single globalization index separatedly. The results acknowledged only index of globalization political effects for statistically relevant in the model.

For this globalization index, the final model recognized relevance of social regime quantified by social protection expenditures (and debt) to the technology spillover from innovatively more to less effective countries in the EU at the 88,8855% level. The model pointed out negative nexus of social protection expenditures (together with debt development) to the technology spillover, the nexus of political effects of globalization appeared positive. We consider this phenomenon to be related to the social protection expenditures as objective of social policy pursue. Higher openness to (foreign) policy import may, thus, augment the possibility of social policy harmonization and technology spillover.

However, this paper should be considered rather indicative than conclusive as further empirical as well as theoretical research in this direction is desired.

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Regionalization in the European Union: The Case of Belgium's 'Centrifugal' Federalism

Dirk Rochtus
Lessius University College/KU Leuven
Subfaculteit Taal en Communicatie
Antwerpen, Belgium
dirk.rochtus@lessius.eu

Abstract
The federal system of the Belgian state grants the regions a lot of competences that are either exclusive or mixed. This has consequences concerning the representation of Belgium in the EU ministerial councils. As the European directives have an impact on areas of regional competences, the regions are obliged to articulate responses there. The centrifugal character of this federalism encourages the regions to have a 'direct seat at the European table'. So Europe offers a new set of opportunity structures especially for those regions that strive for more autonomy. One can see in it the danger of disintegration of the federal state, but also the chance that states thanks to the subsidiarity principle respond much better to the challenges of globalisation.

Keywords: *Federalism, representation, subsidiarity*

JEL codes: *C83, R11, Y10*

1. Introduction

Belgium transferred competences to the European Union (EU) that are characteristic for a sovereign state as we know it under the Westphalian system, f.i. monetary policy. Apart from that Belgium also tunes most of her policy in to what the EU decides. Almost 80 % of the legislation which the national parliament and the regional parliaments are dealing with stems from the EU. At the same time Belgium has adapted her internal state structure to the expectations of the language groups (Dutch- and French-speaking ones) living on her soil: from a unitary state Belgium evolved to a federal state with far-reaching, even exclusive competences for the federated entities. The long extended crises which Belgium experienced from the parliamentary elections in June 2007 until the end of September 2008 and later on from the parliamentary elections in June 2010 until December 2011 was caused by the discussion whether a new state reform is needed and if so to what extent. One language group justified this longing for reform with 'good governance', the other one opposed it fearing desintegration of Belgium.

One can see that Belgium in her competence structure is transferring competences to the upper level (EU) and to the lower level (federated entities). There is no question anymore of Belgium being a 'billiard state' as the Westphalian order defined the state: Belgium has now become a state subject to multilevel governance, a situation in which she on the one hand transferred parts of her sovereignty to a supranational 'Europe', as the Monetary Union f.i. demonstrates, and in which she on the other hand internally has no longer a monopoly in issues like f.i. foreign policy. As far as the latter is concerned, one of the characteristics of the Belgian federalism is that the federated entities can conduct their own foreign and European policy. The way in which this happens is unique in the world, as the federated entities can conclude international treaties and can be represented on the international scene.

There is criticism on the Belgian federalism for being too centrifugal, and especially on the fact that federated entities can enter into international relations and conduct their own international trade policy, because the latter gives the impression that the Belgian federal state would neither internally nor externally be sovereign in the full sense of the word. The federal level seems to have to compete with the federated entities for prestige and competences, especially where a dynamic federated entity like Flanders has strong ambitions in international relations.

Europe offers a new set of opportunity structures especially for those regions within the confines of the EU Members States that strive for more autonomy and recognition. Professor Eve Hepburn notes that for them ‘the decentralization and Europeanization of regional policy opens up direct links to EU decision making processes.’ (Hepburn 2008). So it looks as if the possibilities the EU offers in the field of regionalization might stimulate the wish of certain regions to go their own way. Belgium is an example of a state where federalism works so centrifugal that critics fear for a disintegration of the state being encouraged by this ‘Europeanization of regional policy’.

2. Features of Belgian federalism

Once a centralised, unitary state with French being the sole official language of government, administration, justice, defence and higher education, Nineteen-centurieth Belgium disregarded the collective rights of the Dutch-speaking Flemish people who made up more than 60 per cent of the population. Only those Flemish who assimilated themselves to the French-speaking culture could dream of climbing the social ladder. This democratic deficit gave birth to the so-called Flemish Movement, which sought equality of the two main languages, French and Dutch, in the public sphere. The more the Belgian state resisted the demands of the Flemish for autonomy, be it in the beginning only in the cultural and educational field, the nearer the end to its strictly unitary character would come.

2.1 Divides

Belgium has been characterized, up to this day, by three divides, some of them having become less pressing than before. The linguistic divide between Dutch-speaking Flemish and French-speaking Walloons and inhabitants of Brussels still stands as the most visible one. It lies on the base of the concept of the Community which gathers the people speaking the same language. The other divide is the socio-economic one, until the fifties of the Twentieth Century, between agrarian Flanders and industrialized Wallonia. From then on Foreign Direct Investments in the north of the country would reshape Flanders in a modern service economy, whereas the decline of the coal-and-steel-based industry of Wallonia would turn this part of the country in the situation of being dependent on financial transfers from the economically stronger Flanders. The third divide, the philosophical one, refers to the fact that until the sixties of the Twentieth Century the Catholic Church was the dominating force in Flanders, which does not wonder as it originally was an agrarian society, whereas the agnostic or even atheist traditions of the social-democratic movement played the first role in heavy-industrialized Wallonia. So the political culture and discours were and are still different in Flanders and Wallonia, as their respective populations, living in a well-defined territory, went through a different history related to language, economics and political culture. The year 1963 saw the official demarcation of the language border, laying the institutional base for four linguistic areas, namely Dutch-speaking Flanders in the North, French-speaking Wallonia in the South, a German-speaking area in the eastern part of Wallonian, and French- and Dutch-speaking Brussels.

2.2 Federalisation Process

At the end of the sixties the political forces in the country had become aware of the need for a reform of the constitution: they wanted an answer to the diagnosis that the unitary, centralized state was not anymore the adequate instrument to govern such a multi-faceted society. With his famous words ‘the unitary state is passé’, the then prime minister Gaston Eyskens gave in 1970 the starting shot for the reform process which would turn Belgium into a federal state. This was like a Copernican revolution, when one realizes that even until some years before that statesman’s quote any thinking about and mentioning of federalism was taboo. But reality forced the political class to accept that this was the only way out from the impasse under which the state suffered. Whereas the Flemish strove for more cultural autonomy, the Walloons did so for more economic autonomy. Both strivings would lead to the application of two concepts in Belgium as a whole: the ‘Community’ based on cultural autonomy and the ‘Region’ based on economic autonomy. The federated entities consist out of the Flemish Community, the French Community, the German-speaking Community, the Flemish Region, the Walloon Region and the Brussels Capital-Region, which do not overlap as the Flemish Community and the French Community extend their power on their linguistic compatriots living in the Brussels Region, but only as far as the competences of the Communities stricto sensu are concerned.

The federalisation process in Belgium is a dynamic one - after 1970 several other state reforms by changing the constitution followed, namely in 1980, 1988, 1993, 2001 – and it is also open-ended as the process has not yet stopped. A new state reform is to be carried through in the present legislature. Let us throw an eye on the federalisation process as it developed itself between 1970-2001. In 1970 the ‘Dutch’, ‘French’ and ‘German’ ‘Cultural Communities’ were set up. The members of parliament (in the National Parliament) were divided in a Flemish and French-speaking language group. There was to be parity in the Council of Ministers: seven Flemish and seven French-speaking ones, and the Prime Minister. Special mechanisms were created in order to protect the communities: f.i. thanks to the so-called ‘Alarm Bell Procedure’ each language group in the parliament can halt by a three-quarters majority of its members a legislative procedure if it believes that a law proposed by the other one would affect its interests or disturb the good relations between the communities. In 1980 the Flemish and the Walloon Region acquired the right of law-making in the form of a 'decree' which has the same legal value as the 'law' on the federal level: so there is no hierarchy of norms. Every community and every region has its own competences which are either mixed or exclusive. The 'Cultural Communities' were renamed 'Communities', indicating the fact that they are not solely competent for culture. The federated entities were financed by dotations, as part of the national taxes. In 1988 the Region Brussels-Capital was created. Division of the taxes over regions and communities was foreseen in accordance to the income of the regions, which resulted in financial transfers (now five billions € each year) from the Flemish Region, being the richer one, to the Walloon Region.

With the Saint-Michel-Agreement in 1993, Belgium was officially to become what Article 1 of the Constitution calls '(...) a federal state, consisting of Regions and Communities'. To underline the federal character of the state the 'double mandate' of the parliamentarians as members of the national parliament as well of the regional assemblies was abolished and direct election of the latter made possible. A new regulation of the foreign policy of the Kingdom of Belgium came into force, through which the regions and communities could establish international relations. With the Lambermont-Agreement in 2001, so far the latest state reform, more fiscal autonomy (21 %) was granted to the regions.

2.3 Characteristics

The main characteristics of the federal system can be summarized as follows: There are two kinds of federated entities: the Communities and the Regions, all of them possessing own competences and institutions. The existence of a Brussels Region which has no Community competences and of the German-speaking Community on the territory of the Walloon Region elucidates the incongruence between Community and Regional borders. The competences of the Communities are person-bounded, related among others to education, culture, tourism; the competences of the Regions encompass also housing, environment, agriculture, external trade. As the powers are technically devolved in a similar way to similar entities, but these entities may organize their institutions differently, the federal system can be described as being asymmetrical: the governments and assemblies of the Flemish Region and the Flemish Community merged into one single Flemish Government and one single Flemish Parliament. The competences of the Communities and Regions are generally exclusive and always restricted to their territory. The French-speaking Community f.i. is not competent towards French-speaking persons living in the Flemish Region and vice versa (territoriality principle).

Although there are three regions and three communities, the system is bipolar or in times of crisis even antagonistic, as Flemish and French-speaking people, each of them living in a single well-defined territory (Brussels being the exception as meeting place of both main communities), can close the ranks against each other. The powers of the federated entities are enumerated and the federal authority is vested with the residuary powers (defence, justice, internal security, taxation policy, social security), yet the federated entities want to obtain more competences, so the system is also centrifugal.

3. Organisation of the International Competences of the Federated Entities in their Relation with the EU

3.1 Legal base

The legal base of the parallel foreign policy of the Belgian federation can be traced backed in the Constitution of the Kingdom of Belgium. Article 68 of the former Constitution was amended and renamed in the articles 167, 168 and 169 of the present Constitution. Especially the text of Article 167 points to the will of the law-makers to uphold the unity of the foreign policy of the Belgian federation, while respecting at the same time the autonomy of the Regions and Communities. (Velaers 2006): 'The King is in charge of foreign relations, without prejudice to the powers of the Communities and Regions to regulate international cooperation, including the treaty-making power within the scope of their competences'. It is to be noted that the wording 'King' symbolically stands for the federal government. The Constitution is telling us that the federal authority fulfils a coordinating role and bears the ultimate responsibility in this coordination process of the foreign policies of both federal state and federated entities.

Art. 167 § 2 says that the federal government concludes treaties except where they relate to matters within the scope of competence of the federated entities (art. 167 § 3). These can exercise their authority externally according to the Latin adage 'in foro interno, in foro externo' (convergence between the internal and external competences): Article 167 § 3 gives the constituent regions the right to exercise their authority in international affairs and establishes that 'each regional and community government may conclude treaties which concern them and which fall under the authority of their council. These treaties become effective after their council's assent.' (Council meaning the regional parliament).

So the Regions and Communities of Belgium have the right to conclude treaties (ius tractatis), to participate in the decision-making process of international organisations, to represent Belgium in the European Ministerial Councils, to appoint representatives to the Belgian Embassies and diplomatic missions (ius legationis), and to post representatives with regard to foreign trade abroad. The Belgian federated entities also have their own representatives in the Permanent Representation of Belgium to the EU and regional officials take part in the Council Working Groups. Flanders f.i. has ten political representatives in the capitals of those states which it considers to be priviliged partners, like The Hague, London, Paris, Berlin, Warsawa, Madrid. If Flanders would be an independent state, these representatives would formally be ambassadors, but as this is not the case, they just bear the title of 'Council'.

The fact that the competences of the Regions and Communities are either exclusive or mixed, has consequences concerning the representation of the Kingdom of Belgium in the EU ministerial councils. The EU follows the international principle of ‘unity of state’, that is to say ‘one state, one vote’ (Beyers, Trondal, 2004). So only sovereign states are recognized; in her relations with a member state which is a federal state the EU only deals with one interlocutor who is as the ‘Belgian state’ representing the federal as well as the regional level. What is to be done however when the EU ministerial council deals with an issue that falls under the competence of the regions or the communities of the Belgian federation? When f.i. a ministerial council on education is to be organized, the ministers of education of the EU-member states will not meet with *the* Belgian minister of education, as there is no such one. The Flemish, the French and German-speaking communities have their own minister of education. The solution was found by amending article 146 of the Treaty on the European Union (TEU), becoming article 203, which allows member states of the EU to be represented in the Council of Ministers by members of a government other than the federal government, but only if the representatives are empowered to commit the federal state. This empowerment was made possible by the co-operation agreement of 8 March 1994 between the Federal State, the Regions and the Communities relating to two aspects: the organisation of the actual participation of the regional ministers in the EU Ministerial Councils and the related co-ordination in order to determine the Belgian positions in the EU Ministerial Councils.

The appointment of the Minister who will participate in the Ministerial Councils is based on the internal division of competences in Belgium and on a rotation system between the regional Ministers, as a result of which Belgium is represented by a different federated state every six months. The participation in the Ministerial Councils differs according to the type of Council and the internal division of competences in Belgium. The system is based on six forms of representation, depending on the policy portfolios of the various ministerial councils (Rochtus 2010):

Category I bears upon the ministerial councils dealing with matters that were/are an exclusively federal competence in Belgium, such as the General Affairs, Ecofin, Budget, Justice, Telecommunications, Consumer Affairs Councils. Belgium therefore only delegates a federal minister to these ministerial councils. As a result, no rotation system needs to be designed for this category. Category II is related to ministerial councils which mainly, though not exclusively, deal with federal matters. It concerns the internal market, healthcare, employment, social affairs and transport. In these councils Belgium is represented by a federal minister who is assisted by a so-called regional ‘assessor’. Therefore, a rotation system is used for this assessorship. Category III mainly, though not exclusively, concerns regional competences, such as industry, research and environment. In these councils Belgium is represented by a regional minister who is assisted by a federal assessor. A rotation system is practised for the regional spokespersonship. Category IV has to do with exclusively regional competences such as culture, education and youth. In these councils Belgium is exclusively represented by a regional minister who is not assisted by a federal assessor. A rotation system has also been provided for the regional spokespersonship. No rotation system needs to be introduced for Categories V (Fisheries) and VI (Agriculture) either, as Belgium is always represented by a Flemish Minister for matters related to fisheries. As for agricultural matters, the federal minister is always assisted by the competent ministers of the Walloon and Flemish Regions.

3.2 Coordination of the Belgian positions

Regional ministers participating to the ministerial councils always speak on behalf of Belgium. That is why a mechanism had to be developed to obtain 'Belgian' positions that were co-ordinated in terms of content in the EU Councils. To this end, a co-ordination mechanism was set up under the direction of the Directorate General for European Affairs and Co-ordination of the Federal Ministry of Foreign Affairs. The secretariat of this office both organises and chairs the co-ordination meetings, at its own initiative or at the request of each of the authorities involved. The co-ordination meetings are attended by federal Government officials and officials of the federated states as well as by representatives of the competent ministers who ensure political coherence.

This co-ordination, both in general and for each of the items on the agenda of the EU Councils, takes place prior to each Council session. The idea is to reach a consensus and decisions must be taken unanimously. The realization that abstentions in European decisions are not advisable provides an extra stimulus for the members to reach this unanimity. If no consensus can be reached, the matter can be brought before the *Interministeriële Conferentie van Buitenlandse Zaken* (ICBB) (interfederal consultation body for foreign policy), so as to allow the matter to be arbitrated at ministerial level. In practice, however, this arbitration usually takes place in the Consultation Committee (general political consultation body between the federal and the federated state Governments) on which the different Heads of Government sit and which functions/can function in a rather flexible way.

Practice shows that an internal Belgian agreement can nearly always be reached through the regular consultation which is organised by the *Directie-Generaal Europese Zaken en Coördinatie* (Directorate General for European Affairs and Co-ordination). The Belgian representative in the Council, whether it is a federal or regional minister or the Belgian Ambassador to the European Union, can only take a position in the Council of Ministers on matters that have been subject to co-ordination. If the position taken at a session of the Council or of the Committee of Permanent Representatives of the European Union (COREPER) is to be urgently adjusted, the head of delegation is to establish the necessary contacts to this end. If, due to lack of time or in case no consensus can be reached at all, he can exceptionally endorse 'ad referendum' the position which best meets the general interest. The final position is then communicated to the EU Presidency within a period of three days at most following the settlement of the issue at internal level.

4. Conclusion

European directives have an impact on areas of regional competences, so the regions are obliged to articulate responses, and how they manage to do this, has been described in part 3. The European Union has become the space in which the regions can realize their policy demands. The Europeanization and federalization process, to which Belgium is liable, corresponds with the view on the nation-state as an entity which is too small for the solution of the big problems of the world and too distant for the citizens, so too big for dealing with their daily problems. What happens in the European Union and especially in those member states which are federal states with the transfer of competences of the nation-state to Europe (bottom-up) and the regions (top-down), appears in a more dramatical form on world scale where due to the globalization non-state actors like banks, multinationals and NGO's sap the power of the nation-state.

Questions remain whether the EU will ever become a federation as a superstate in which the present member-states would fulfil the role that federated entities have in federal states like Belgium and Germany, and whether the nations or the regions would be the building-stones of the EU. Flemish politicians use to plead for a Europe in which the delineation of competences between EU, national state and region is to be organized according the subsidiarity principle. Anyway the emphasis placed on the principle of subisidiarity in the Lisbon Treaty 'expresses not only a rejection of a European super-state, but also the commitment to a democratic governance order: in essence, the higher level of governance should only be responsible for a task when the lower levels are not capable of handling it.' (Höreth, Sonnicksen, 2008, p. 7).

Some see in such a region-based Europe a threat to democracy as smaller entities, which are the regions, would have less power to take important decisions so that the real power would go the upper level. The Europe of the regions could 'taken to the extreme, lead to disruption and a radical step backward' (Manzella, 1998, p. 40). The striving for a Europe of the regions originates with 'constitutional regions' which have so many competences within their own state that they want to have a say in European matters. It lies within the logic of the Europeanization that the nation-state is not the sole actor and that its regions or federated entities want to have a more direct access to Europe, as they are Europe too. It is no coincidence that Geert Bourgeois, the former Flemish foreign minister, preferred to call Flanders a '*deelstaat*' instead of 'region' - the Dutch word '*deelstaat*' literally meaning 'part state'-because this enhances the chances of Flanders to become in the long run an own state, not in the Westphalian sense of the word, but as a 'postmodern state' for which sovereignty is 'a seat at the table' (of the EU and the UN) (Cooper 2004). Flemish nationalists like Bourgeois prefer the concept of 'independentism' to 'separatism', because of its more positive connotation of Flanders being an autonomous, immediately participating member of the bigger entity that the postmodern order of Europe represents. An ambitious federated entity like Flanders uses her foreign policy to strengthen her position and her claims for more autonomy in a Europe that grants representation at the table to the federated entities of federalized memberstates, be it still indirectly. Regionalisation of foreign policy is often criticised as an 'excess' as it enables a federated entity to act as an international actor parallel to the federal state. Yet one cannot turn back the clock. Criticising the federated entities for conducting their own foreign policy is the same as criticising the Belgian Constitution for having written down this opportunity as such. When one wants the federal system to function properly, one has also to accept that the federated entities conduct their own foreign and European policy according to the principle of 'in foro interno, in foro externo'.

One can also think about the chances regionalisation creates, by quoting mister Luk Van Langenhove, the Director of the Comparative Regional Integration Studies Programme of the United Nations University in Bruges (Flanders/Belgium), as he is pointing at the necessary symbiotic cooperation between nation-state and region within the over-arching globalized network they belong to: '(...) in an attempt to face the challenges of globalisation, states can – on a voluntary basis – turn to world and local regions to complement and even strengthen their power. As such, the world of states would gradually become a world of states and of regions. Such a transformation has two main drivers. One is the diminishing capability of states in the global age to deliver good local governance. The other is the growing limitations of multilateral organisations to deliver good global governance in dealing with global threats. The pillar of the Westphalian world order, the state, and the pillar of multilateralism, the global international organisations, are both under siege. But states and international organisations can adapt and give birth to innovations that provide better governance. A world of states and regions could well be such an innovation that holds the promise of a renewed and better system of global and local governance. (...) This role of the EU, assisting regional development both in Europe and globally, would not be a movement against states. It is a way for states to respond better to the challenges of globalisation. In that sense one could say that we are not moving towards a post-Westphalian world order but towards a neo-Westphalian world order.' (Van Langenhove, 2008, 115).

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European Integration in Higher Education in the Czech Republic

Karel Skokan
VŠB – Technical University of Ostrava
Faculty of Economics, Department of European Integration
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
karel.skokan@vsb.cz

Abstract
European governance and European integration have been timely topics of practical policies and research in social sciences more than fifty years. At the same time they are studied in various bachelor, master and doctoral studies in universities and research institutes. The aim of the paper is to present the main streams of education in European affairs at top universities in the Czech Republic and to assess the results of education in European integration in the last fifteen years at the Faculty of Economics in the VŠB-Technical University of Ostrava.

Keywords: *European integration, higher education*

JEL codes: *A20, F15, I23*

1. Introduction

Processes of European economic integration play the key role in the development of all member states and affect the activities of all institutions and firms in both public and private sectors. That is why the significance of European integration issues is still increasing including the transfer of received findings and knowledge into practical life. While the period of the fist fifty years of integration was accepted positively by old and mostly new member states, the new era of integration after the outbreak of financial and economic crisis in 2008-2010 evoked many doubts and the changeover from euro-optimism to euro-pessimism in nations. However it does not mean the European integration should not be studied and explored any more.

European Commission (2012a) provides special support for European studies by the Jean Monnet Programme, which is the part of Lifelong learning program. Its aim is to stimulate teaching and research in European integration by higher education institutions by creation of Jean Monnet Chairs, Centres of Excellence, Modules, information and research activities. The study programmes and research departments or centres focused to European studies or European integration were established in the past in all advanced countries of Europe and in the world at many recognised universities. European Commission (2012b) offers also on its web pages 267 courses for the Master degree European Integration studies which are prepared by thousands of teacher and researchers. European studies programs and research are provided by number of prestigious universities in Europe. There are universities and institutes focused primarily on European integration, such as College of Europe (in Brugge and Warsaw), European Institute of Public Administration (Maastricht, Luxembourg, Barcelona), European University Institute (Florence). Then there are universities in which European integration studies are supplementary to other study programmes.

The institutes of European studies and research are networking within various associations as is the European Community Studies Association (ECSA) including almost all EU member states. European integration is studied also outside the European Union, e.g. in US, Asia and China.

This paper analyses the European studies at the Czech universities. European issues are taught at 14 universities including private universities in Bachelors, Masters and PhD study programmes. It describes in detail the innovation of study programme European Integration at the Economic faculty of VSB-Technical University Ostrava. The courses are focused to the preparation of economists and euro-managers who are capable to make use the European integration processes and EU instruments for the increase of competitiveness of firms and regions based on innovation and other up-to-date approaches to economic development.

2. European studies in the Czech universities

The study and research of European integration in the Czech Republic began after the 1989 with the expectations of “going to Europe”. In the teaching of European affairs we can differentiate between two basic groups. The first one is represented by faculties of economics in which the emphasis to general issues of economic integration, economic policy of European integration and doing business prevails. The second group is composed of universities focused to institutions, politics, law, culture and soft factors of European integrations titled mostly European studies. The overview of study branches in European affairs is in Table 1.

At present (MSMT 2012) there are 14 universities in the Czech Republic which offer 53 study branches in European affairs out of which are 13 branches for bachelor degree, 40 branches for master degree and 10 for doctoral degree. In eighteen study branches the courses are offered in English. Among the universities there are also four private universities or colleges (MUP Praha, UJAK Praha, UNYP Praha and VŠMVV Praha).

The first group of economic studies of European integration is composed of Mendel University in Brno (MENDELU v Brně), Silesian University in Opava (SU Opava), Prague School of Economics (VŠE Praha), VŠB-Technical University in Ostrava (VŠB-TU Ostrava) and Technical University in Brno (VUT Brno). The second group of European studies is mostly taught at traditional and largest universities – Charles University in Prague (UK Praha), Masaryk University in Brno (MU Brno) and Palacký University in Olomouc (UP Olomouc).

The professional staff for teaching the European integration is either located at specialised departments or it is the part of departments of economics, public administration and public economy or regional and world economy and international relations.

Table 1: Study branches in European affairs at the Czech universities

University	Type of study	Study branch	Language of study
ČZU v Praze	N	European Agrarian Diplomacy	CZ, EN
JU v Českých Budějovicích	B	European Territorial Studies	CZ
MENDELU v Brně	N	European Forestry	EN
	N	European Studies in Business and Economics	CZ, EN
MU v Brně	N, P	European Politics	EN
	B	European Economic, Administrative and Cultural Studies	CZ
	B, N, P	European Studies	CZ
MUP Praha	N	European Studies and Public Administration	CZ
SU v Opavě	B, N	European Integration	CZ
UJAK Praha	B, N	European Economic and Public Administration Studies	CZ, EN
	P	European Law	CZ, EN
	N	European Studies	CZ, EN
UNYP Praha	B	European Business Administration	EN
UP v Olomouci	N	Euroculture	EN
	N	European Studies and International Relations	CZ, EN
	N	European Studies and Law	CZ
VŠB-TU Ostrava	B	European Business Studies	EN
	B, N	European Integration (European Administration)	CZ, EN
VŠE v Praze	P	European Studies	CZ, EN
	N, P	European Integration	CZ
VŠMVV Praha	N	European Studies and Public Administration	CZ
VUT v Brně	N	European Business and Finance	EN
ZU v Plzni	P	European Studies	CZ, EN
	N	European Cultural Studies	CZ

Notes:B-bachelor, N-master, P-doctoral studies; CZ-Czech, EN-English
Source: Author by MSMT (2012)

Specialised departments are among others the Department of European Integration in VŠB-TU Ostrava, the Department of World Economy at VŠE Praha, the Department of European Economic Integration and Economic Policy at UK Praha, the Department of International Relations and European Studies at MU Brno or the Department of Politics and European Studies at UP Olomouc.

3. European integration at the Faculty of Economics in Ostrava

Faculty of Economics of the VŠB-Technical University of Ostrava provides the teaching in three levels – bachelor, master and doctoral and in the three core study programmes. They include the Economic Policy and Administration, Economics and Management and Systems Engineering and Informatics.

The teaching of European affairs at the faculty is included within the first study programme and was designed and approved within the study branch under the title European Administration. It was opened for the students in 1996 and the first thirty graduates received their diplomas in 2001 in the Master study programme. As the consequence of Bologna process in education the Bachelor and Master study programmes were prepared also for European Administration study branch in the length of three or two years respectively.

The first courses of study were limited in number and the contents as there were only few specialists focused to European administration and integration. The main change appeared in 2004 when the department of European integration was established in the eve of the Czech Republic EU admission. The department developed new courses specialized in different branches of European integration and also the professional level of the teaching staff increased. In 2012 there is one professor, one reader and six Ph.D. holders among nine department members.

The study is offered in two levels. Bachelor study has the standard length of six semesters. The graduates of Bachelor degree European integration receive the knowledge of basic economic disciplines of Faculty of Economics in the fields of macro- and microeconomics, management and marketing, business economics and financing and public administration. They also receive the broad knowledge and understanding the subject and scope of European integration, EU and its institutions and the EU policies; broad knowledge of theories and concepts of European integration, globalization and global integration processes and of economic and regional policies of the EU and the support of enterprise in the EU; understanding of possibilities, conditions and restrictions for the use of instruments and policies of the EU in the development of places and regions and firms.

Graduation requirements include 180 ECTS credits, final state examination and bachelor thesis. Graduates are able to find employment in public institutions, in business or in consultancy companies dealing with European integration or preparing the implementation of specific business plans or public projects utilizing EU policy tools.

The Master degree study in European Integration deepens and intensifies knowledge about the economic, legal and institutional settings of the European Union. It explains the different types of EU Trade, Structural, Cohesion, Environmental and other policies and the functioning of the Single Market, Economic and Monetary Union, Foreign and Security Policy, Taxation in EU countries, etc. The study enhances both the theoretical and practical knowledge about European integration and EU institutions, the programming of EU Structural Funds in regional development, management of development projects in the EU and the development of business environment for competitiveness and growth. The emphasis is given to the enlargement of language skills too by the offer of second language (French) and by the lecturing of some parts or the full courses in English and by the compulsory use of texts in foreign languages.

Graduation requirements include 120 ECTS credits, final state examination and diploma thesis. Graduates of European Integration Master study are able to follow the new theoretical approaches and to solve practical problems of market economy in the actual processes of European and global integration and to use the instruments offered by the EU. Graduates are also able to pursue careers as economists, project managers and Euro-managers in the public sector on the regional, national and supranational levels and in companies and consultancy organizations that operate within Europe. Graduates are also able to prepare and implement specific business plans or public projects in the EU environment and they also have a broad range of knowledge necessary for those who work with European Union authorities.

The main specialised courses taught in both fields of study are summarised in Table 2.

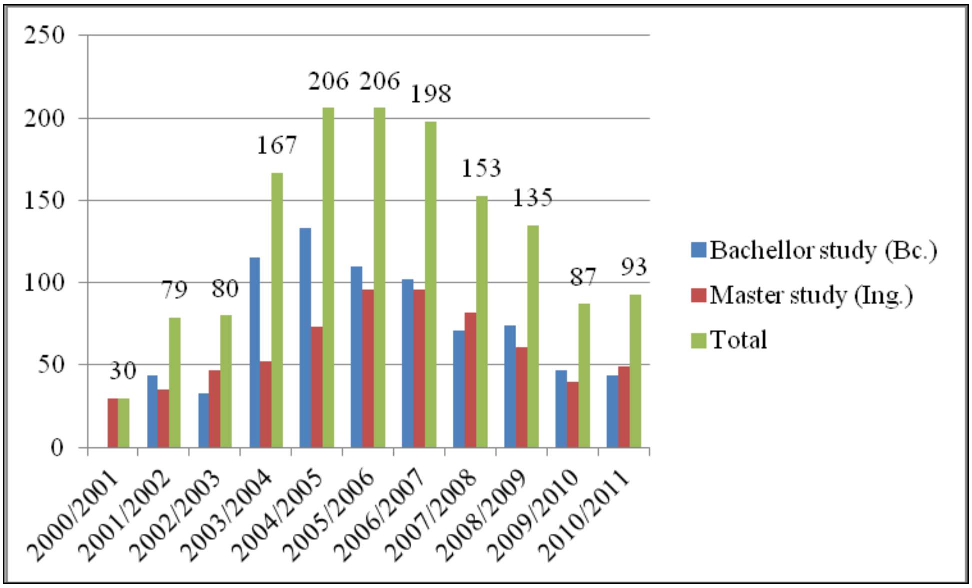
Table 2: Specialised courses taught in European Integration studies

Bachelor study		**Master study**	
European Union A	Economic Policy of The EU	Theory of Integration Processes	EU Competitiveness
Integration Processes in the Word Economy	Regional Policy of The EU	EU Cohesion Policy	EU Monetary Policy
Public Administration in the EU and in the CR	Support of Entrepreneurship in the EU	EU Trade Policy	EU Environmental Policy
Globalization and International Organizations	Project Management in the EU	European Policy	Single European Market
Economic Policy of Selected Countries	English of European Integration	Contemporary Issues in the EU	Management of Development Projects in the EU
Social Policy in The EU		Taxes in the EU	EU Labour Market

Source: Author

In the context of EU admission the demand for the European affairs studies grew steadily from 2001 till 2006 as can we see at the Figure 1. However from next years the demand began to fall with slight revival in the last two years. The reason may be the negative perception of European integration in the society after the outbreak of financial crisis.

Figure 1: Number of graduates in European Administration



Source: Author

In the period 2001- 2011 graduated in European Administration study branch 1434 students of which 773 were Bachelors and 661 were Masters.

4. Conclusion

European integration is a phenomenon which governs the political, economic and social development not only in the EU member states but also in the whole Europe. Education in European integration played significant role mostly in new EU member states in the period before and closely after EU admission. However even now when the economic outlook does not seem to be favourable it will be European Union which affects the prospects of European countries.

In the Czech Republic teaching of European affairs has a quite long tradition of almost 20 years at 14 universities or colleges aimed at economic aspects of European integration or more at general European studies. The teaching is not confined only to Prague and its universities, but was also successfully developed outside capital Prague in the regions as it is proved by the detailed analysis of European integration courses in Ostrava.

Further direction of education of European integration should be focused to three priority axes. The basis will stay on European institutions. The second will be the EU policies and the utilization of EU instruments – mostly funds for the increase of competitiveness and cohesion. The third and new strong direction shall be the world economics and the development in China, India, South Africa and Latin America followed by U.S. and Russia.

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Assessment of Efficiency in Selected EU Member States by Data Envelopment Analysis Models

Michaela Staníčková
VŠB – Technical University of Ostrava
Faculty of Economics, Department of European Integration
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
michaela.stanickova@vsb.cz

Abstract
Efficiency of the European Union (EU) countries is the source of national competitiveness. The paper deals with an evaluation of competitiveness degree of the Visegrad Four countries (V4) in comparison with selected advanced EU countries – Austria and Germany, with the help of multi-criteria quantitative analysis – Data Envelopment Analysis (DEA) method. The paper analyses a degree of efficiency achieved in individual countries which is perceived as a reflection of the level of competitive potential in the reference period 2000 – 2010. The theoretical part of the paper is devoted to fundamental bases of competitiveness and the methodology of DEA method. The empirical part is aimed at measuring efficiency of evaluated countries by selected DEA models – basic CCR and BCC, additive SBM, FDH and FRH models. When applying DEA method, it is used indicators, which are part of the Country Competitiveness Index (CCI) – common approach of EU and World Economic Forum (WEF) to competitiveness evaluation. The final part of the paper offers a comprehensive comparison of results obtained by using of all calculated DEA models.

Keywords: *Competitiveness, DEA models, efficiency, evaluation, inefficiency*

JEL codes: *C67, C82, R11, Y10*

1. Introduction

The process of European integration is guided by striving for two different objectives: *to foster economic competitiveness* and *to reduce regional disparities*. The economy may be competitive but if the society and the environment suffer too much the country will face major difficulties. The same problem would happen vice versa when the economy is too weak. Therefore governments in the long run cannot focus alone on the economic competitiveness of their country, instead they need an integrated approach to govern the country and to contribute to competitiveness in broader perspective (Staníčková, Skokan, 2012).

1.1 Concept of competitiveness

In last few years, the topics about measuring and evaluation of competitiveness are in the front of economic interest. Competitiveness belongs to one of the most used words. In spite of high frequency of usage this expression, hardly anybody can exactly explain the right meaning of the word competitiveness. The definition of competitiveness is a problematic issue because of the *lack of mainstream view* for understanding this term. Competitiveness is one of the fundamental criteria for evaluating economic performance of area (country/region) and also reflects the success in wider (international/interregional) comparison. The concept of competitiveness is understood at different levels - *microeconomic, macroeconomic* and especially *regional*, but there are differences between these approaches (Garelli, 2002; Krugamn, 1994).

Competitiveness is monitored characteristic of national economies which is increasingly appearing in evaluating their prosperity, welfare and living standards. The need for a theoretical *definition of competitiveness* at macroeconomic level emerged with the development of globalization process in the world economy as a result of increased competition between countries. Despite that, growth competitiveness of the territory belongs to the main priorities of countries' economic policies, there is not a standardized definition and understanding of national competitiveness. The concept of competitiveness in the European Union (EU) is specific regarding the inclusion of *elements of European integration* that goes beyond the purely economic parameters. The concept of competitiveness has quickly spread into the regional level. In the global economy regions are increasingly becoming the drivers of the economy and generally one of the most striking features of regional economies is the presence of clusters, or geographic concentrations of linked industries (Porter, 2003). Within governmental circles, interest has grown into *regional foundations of national competitiveness* and with developing new forms of regionally based policy interventions to help improve the competitiveness of every region and major city and hence the national economy as a whole. *Regions play an increasingly important role in the economic development of states*.

1.2 Evaluation of competitiveness

Evaluation of competitiveness is no less complex as the definition and understanding of the concept itself. Creation of competitiveness evaluation system in terms of the EU is greatly complicated by heterogeneity of countries and regions and also by own approach to the original concept of competitiveness. Because of the lack of mainstream view of competitiveness evaluation, there is a space for alternative approaches. Evaluation of competitiveness in terms of differences between countries and regions should be measured through complex of economic, social and environmental criteria that can identify imbalance areas that cause main disparities. Currently not only quantitative but also qualitative development at the national level, and especially at the regional level, increase socio-economic attraction and create new opportunities that are fundamentals for subsequent overcoming disparities and increasing the competitiveness of the territory.

Competitiveness is most commonly evaluated by *decomposition of aggregate macroeconomic indicators*. Competitiveness of countries is monitored by many institutions; however, two well-known international institutes publish most reputable competitiveness reports. To compare a level of competitiveness of countries we can use the databases performed by *Institute for Management Development* (IMD) and *World Economic Forum* (WEF). WEF publishes the *Global Competitiveness Report* (GCR) that produces annul competitiveness indices that rank national economies.

Global Competitiveness Reports use two main aggregate indexes for measuring level of competitiveness – the *Global Competitiveness Index* (GCI) and the *Business Competitiveness Index* (BCI). IMD ranking on competitiveness is realized in the *World Competitiveness Yearbook* (WCY) which provides a comprehensive report on competitiveness of countries assesses and analyses the national conditions for business competitiveness.

Competitiveness of the EU can be measured also by indicators of *EU' growth strategies* (Lisbon strategy – Structural indicators, Strategy Europe 2020 – Indicators of Europe 2020) or by *macro-econometric modelling* with creation of an econometric panel data model, see e.g. (Melecký, 2011). Furthermore there is continuity between the approach of EU and WEF in *EU Country/Regional Competitiveness Index*. Another approach is evaluation by the *Data Envelopment Analysis* (DEA) method, which measures national efficiency and subsequent competitive potential see e.g. (Hančlová, 2010).

2. Measuring of efficiency at national level by DEA method

Although the EU is one of the most developed parts of the world with high living standards, there are economic, social and territorial disparities between Member States. These disparities have a negative impact on the balanced development across the EU and weaken its competitiveness in the global context. Globalization, rapid technological change, an ageing population and new knowledge economies are external factors which are becoming a growing threat. The EU needs to transform its economy and society. Europe's economic challenge is to secure its position in global markets facing intense challenges from its competitors. The EU makes an effort to restore the foundations of its competitiveness and economic performance through increasing its growth potential and its productivity. The performance analysis provided by DEA method can be used for evaluating national development efficiency with respect to the national factor endowment. DEA method becomes thus a suitable tool for setting a un/competitive position of each Visegrad Four (V4) country in comparison with more advanced EU countries – Austria and Germany.

2.1 Theoretical background of DEA method

DEA was first proposed by Charnes et al. in 1978. Since that time, DEA is a subject of a number of research activities. Researchers in a number of fields have quickly recognized that it is an excellent and easily used methodology for modelling operational processes for performance evaluations. This has been accompanied by other developments. DEA is based on *Farrel model* for measuring the effectiveness of units with one input and one output, which expanded *Charnes, Cooper, Rhodes* (CCR model) and *Banker, Charnes, Cooper* (BCC model), in advanced *Slack-Based Model* (SBM), *Free Disposal Hull* (FDH) and *Free Replicability Hull* (FRH) models, see e.g. (Cook, Zhu, 2008).

DEA is gaining importance as a tool for evaluating and improving the performance of a set of peer entities called *Decision Making Units* (DMUs)) which convert multiple inputs into multiple outputs. DEA is a *multi-criteria* productivity analysis model for measuring relative efficiency and providing comparison of a homogenous set of DMUs. The definition of a DMU is generic and flexible, but there are comparable. The DMUs are usually characterized by several inputs that are utilized for producing several outputs, but their performances are different. DMU is *efficient* if the observed data correspond to testing whether the DMU is on the imaginary '*production possibility frontier*'. All other DMU are simply *inefficient*. The best-practice units are used as a reference for the evaluation of the other group units. The aim of this method is to examine DMU if they are *effective* or *not effective* by the size and quantity of consumed resources by the produced output or other type of output (Cooper, Seiford, Zhu, 2004).

In recent years, we have seen a great variety of applications of DEA for evaluating the performances of many different kinds of entities engaged in many different activities. Because of low assumption requirements DEA has also opened up possibilities for use in cases which have been resistant to other approaches because of the complex (often unknown) nature of the relations between the multiple inputs and multiple outputs involved in DMUs. Using DEA method as a quantitative analysis for national competitiveness evaluation seems to be convenient because it does not evaluate only one factor, but a set of different factors that determine the level of economic development. The DEA method used for evaluation is based on a particular set of input and output indicators. The inputs and outputs form the key elements of the system evaluated for every country in the sense of their effective/ineffective economic position. For this purpose, the DEA method can identify a competitive/uncompetitive position of each country within the group of V4 and Austria and Germany. *Efficiency* of each country is thus the *source of national competitiveness* (Hančlová, 2010; Staníčková, Skokan, 2011).

2.2 Methodological background of empirical analysis

Based on the facts above, it is possible to determine the initial *hypothesis of the analysis*. The hypothesis is based on the assumption that the V4 countries, Austria and Germany achieving best results in efficiency are countries with the best using of their competitive advantages and therefore having the greatest competitive potential and perspectives. DEA is thus in following analysis applied to 4 countries within the groupings of V4 – Czech Republic (CZ), Hungary (HU), Poland (PL) and Slovakia (SK), and to more advanced EU countries – Austria (AT) and Germany (DE).

The efficiency analysis starts from building database of indicators that are part of a common approach of WEF and EU in the form of *Country Competitiveness Index* (CCI). The aim of this approach is to develop a rigorous method to benchmark national competitiveness and to identify the key factors which drive the low competitiveness performance of some countries. The reference to CCI is the well-established *Global Competitiveness Index* (GCI) by the WEF, but some variations and adaptations have been considered necessary especially in order to address the regional dimension – *Regional Competitiveness Index* (RCI). Eleven pillars may be grouped according to the different dimensions (*input versus output aspects*) of national competitiveness they describe. The terms '*inputs*' and '*outputs*' are meant to classify pillars into those which describe driving forces of competitiveness, also in terms of long-term potentiality, and those which are direct or indirect outcomes of a competitive society and economy. From this point of view, *methodology of Country Competitiveness Index is suitable for measuring national competitiveness by DEA method* (Annoni, Kozovska, 2010).

The indicators selected for the CCI framework are all of quantitative type (hard data) and the preferred source has been *the European Statistical Office* (Eurostat). Whenever information has been unavailable or inappropriate at the required territorial level, other data sources have been explored such as the *World Bank*, *Euro barometer, the Organization for Economic Co-operation and Development* (OECD) and *the European Cluster Observatory*. In this paper, database analysis consists of *66 selected indicators* – 38 of them are inputs and 28 outputs. The reference period started from 2000 to 2010. It is does not use all indicators included in CCI because all indicators were not available for the whole period for each country, but for some indicators we found comparable indicators. The pillars and used indicators are listed in Annex.

For calculations of economic efficiency of V4 countries in comparison with Austria and Germany, it is used 10 selected DEA models:

1. *CCR input oriented model (with multiple inputs and outputs), assuming constant returns to scale (CRS),*
2. *CCR output oriented model (with multiple inputs and outputs), assuming constant returns to scale (CRS),*
3. *BCC input oriented model (with multiple inputs and outputs), assuming variable returns to scale (VRS),*
4. *BCC output oriented model (with multiple inputs and outputs), assuming variable returns to scale (VRS),*
5. *SBM additive model not-focusing on input and output (with multiple inputs and outputs), assuming constant returns to scale (CRS),*
6. *SBM additive model not-focusing on input and output (with multiple inputs and outputs), assuming variable returns to scale (VRS),*
7. *FDH input oriented model (with multiple inputs and outputs),*
8. *FDH output oriented model (with multiple inputs and outputs),*
9. *FRH input oriented model (with multiple inputs and outputs),*
10. *FRH output oriented model (with multiple inputs and outputs).*

Basic DEA models, *primary CCR input/output oriented models* (with multiple inputs and outputs), assume constant returns to scale (CRS). In 1984, Banker, Charnes and Cooper suggested a modification of CCR model, which considers variable returns to scale (VRS) (decreasing, increasing or constant) – *BCC input/output oriented models* (with multiple inputs and outputs). VRS enable better identify more efficient units, because VRS provides a more realistic expression of economic reality and factual relations, events and activities existing in countries.

CCR and BCC models evaluate the efficiency of units (in our case countries) for any number of inputs and outputs. The *coefficient of efficiency* is the ratio between the weighted sum of outputs and the weighted sum of inputs. Each country selects input and output weights that maximize their *efficiency score*. The coefficient of efficiency (CE) takes values in the interval <0,1>. In *DEA models aimed at inputs* the efficiency coefficient of efficient countries (located on the efficient frontier package) always equals 1, while the efficiency coefficient of inefficient countries is less than 1. In *DEA models aimed at outputs* the efficiency coefficient of efficient countries (located on the efficient frontier package) always equals 1, but the efficiency coefficient of inefficient countries is greater than 1. DEA also allows for computing the necessary improvements required in the inefficient country's inputs and outputs to make it more efficient.

CCR and BCC models are radial, which means that they contain radial variables θ_q (for models aimed at inputs) and φ_q (for models aimed at outputs). These variables indicate the required level of reduction in all inputs (θ_q) and the rate of increase of all outputs (φ_q) to achieve efficiency. However, *CCR and BCC models must focus on the distinction between inputs and outputs*. SBM additive models measure directly the effectiveness of using additional variables (s^+ and s^-). *In formulation of SBM additive models is not necessary to distinguish between a focus on inputs and outputs*. As mentioned above, in CCR and BCC models, the efficiency coefficient of efficient units always equals 1, while the efficiency coefficient of inefficient units is less/greater than 1. *In SBM models, the efficiency coefficient of efficient units always equals 0, because it is the sum of additional variables for inputs and outputs (s^+ and s^-), which express the distance from the efficient frontier*. The sum of additional variables for inputs and outputs is lower, evaluated unit (in our case countries) is closer to the efficient frontier package and thus has a higher degree of efficiency, and otherwise (Cooper, Seiford, Zhu, 2004).

Basic DEA models compare inputs and outputs of evaluated units (country, region) with a linear (convex) combination of inputs and outputs of other units. This unit is not in most cases assessed to really existing unit, but to a kind of virtual unit, which is a combination of inputs and outputs of existing units. The basic idea of FDH model, which was first formulated by *Deprins*, *Simar* and *Tulkens* (1984), is unconvexity of set of production possibilities. This means that evaluated unit can be only relatively compared towards really existing units. For comparison with CCR and BCC models, it should be added that limits of efficiency rate is similar to these models, and it depends on model orientation on inputs or outputs. Rate of efficiency, obtained by FDH models, is generally higher than in CCR and BCC models. This is due to the possibility that a production unit is dominated not only by specific production units of set of units (in the case of CCR and BCC models), as well as convex combinations of these units. A simple extension of FDH model is FRH model, which unlike FDH model, allows evaluated unit compares with multiplied combinations of other units (Fiala, 2010).

Assuming that there are 6 countries, each with *m* inputs and *r* outputs, the relatively efficiency score of a test country *q* is obtained by solving equations (1) – (2) (Fiala, 2010). Given the extensive equations of each model, only equations modifications of basic CCR model are shown for illustrative purposes.

For *CCR input oriented model* (with multiple inputs and outputs), assuming constant returns to scale (CRS), the following equation (1):

max

$$z = \sum_{i}^{r} u_i y_{iq},$$

on conditions:

$$\sum_{i}^{r} u_i y_{ik} \le \sum_{j}^{m} v_j x_{jk}, k = 1,2,...,n,$$

$$\sum_{j}^{m} v_j x_{jq} = 1,$$

$$u_i \ge \varepsilon,\ i = 1,2,\ldots,r,$$

$$v_j \ge \varepsilon,\ j = 1,2,\ldots,m. \qquad (1)$$

Where:

z the coefficient of efficiency of unit U_q;
ε infinitesimal constant;
v_j weights assigned to j-th input;
u_i weights assigned to the i-th output;
x_{jk} value of j-th input of unit U_k;
x_{jq} value of j-th input of unit U_q;
y_{ik} value of i-th output of unit U_k;
y_{iq} value of i-th output of unit U_q;
m inputs;
r outputs.

For *CCR output oriented model* (with multiple inputs and outputs), assuming constant returns to scale (CRS), the following equation (2):
min

$$g = \sum_{j}^{m} v_j x_{jq},$$

on conditions:

$$\sum_{i}^{r} u_i y_{ik} \le \sum_{j}^{m} v_j x_{jk}, k = 1,2,...,n,$$

$$\sum_{i}^{r} u_i y_{iq} = 1,$$
$$u_i \geq \varepsilon,\ i = 1,2,\ldots,r,$$
$$v_j \geq \varepsilon\ ,\ j = 1,2,\ldots,m. \qquad (2)$$

Where:

g	the coefficient of efficiency of unit U_q;
ε	infinitesimal constant;
v_j	weights assigned to j-th input;
u_i	weights assigned to the i-th output;
x_{jk}	value of j-th input of unit U_k;
x_{jq}	value of j-th input of unit U_q;
y_{ik}	value of i-th output of unit U_k;
y_{iq}	value of i-th output of unit U_q;
m	inputs;
r	outputs.

For solution of DEA models are used software tools based on solving linear programming problems, e.g. Solver in MS Excel, such as the DEA Frontier (Fiala, 2010), which is used in the paper to evaluate the efficiency of V4 countries, Austria and Germany.

3. Problem solution

The initial hypothesis of efficiency being a mirror of competitive potential was confirmed through analysis as illustrated in following Table 1 and Table 2. In the case of national efficiency evaluation was found out that in used DEA models were comparable results in all V4 countries, but also in Austria and Germany. Table 1 presents a comparison of efficiency evaluation of V4 countries in comparison with Austria and Germany by CCR, BCC, SBM, FDH and FRH models. *At national level, it is evident that levels of efficiency of individual V4 countries are on average lower in CCR models than in BCC, FDH and FRH models* (except Austria and Germany, which were evaluated to be efficient in all models during the referred period). *This fact confirms theory that in BCC models with VRS, the coefficients of efficiency reach higher values and higher number of evaluated DMUs is classified as efficient. This has been also confirmed in SBM models with VRS by higher number of evaluated units identified as efficient compared to SBM models with CRS. This fact is also confirmed in FDH and FRH models,* because these models relatively compare inputs and outputs of evaluated countries towards really existing countries, and not to virtual country.

The overall evaluation of efficiency of V4 countries, Austria and Germany shows that the best results achieved 2, respectively 3 of 6 countries during the period 2000-2010. The best results are predictably achieved by economically powerful countries which were *efficient* during the whole referred period; see Table 1 and Table 2. It means that the outputs achieved were greater than incurred inputs. Ratio of inputs and outputs is in an optimum and there is no requirement to change them. These countries were *efficient* in both *CCR* and *BCC inputs/outputs oriented models*, as well as in *SBM*, *FDH* and *FRH models*, and therefore, according to hypothesis, should have the *greatest competitive potential*. Efficient countries are highlighted by dark grey colour in Table 1. These countries are *Austria* and *Germany*. The Czech Republic was evaluated also as effective, but only in *BCC models*, *SBM model with VRS* and *FDH models*.

The efficient countries are followed by a group of countries which are also *highly efficient*. These countries do not achieved efficiency equal to 1 in *CCR, BCC, FDH* and *FRH models* or low sum of values of additional variables in *SBM* models, but their efficiency indices reached consistently highly effective values close during the referred period (coloured by light grey colour in Table 1). These countries are Slovakia and Poland in all used models, thus *CCR, BCC, SBM, FDH and FRH models*. In the case of *CCR models*, *SBM model with CRS* and *FRH models*, the Czech Republic was evaluated also as *highly efficient.*

Only Hungary *was classified as inefficient in all used DEA models,* so it shows low competitive potential and development perspective (coloured by ultra-light grey colour and italics in Table 1).

Table 1: Comparison of Efficiency in DEA Models for V4, Austria, Germany

Country	DEA MODELS									
	CCR IO	CCR OO	BCC IO	BCC OO	SBM CRS	SBM VRS	FDH IO	FDH OO	FRH IO	FRH OO
	CE*	CE*	CE*	CE*	CE*	CE*	CE*	CE*	CE*	CE*
AT	1,000	1,000	1,000	1,000	0	0	1,000	1,000	1,000	1,000
DE	1,000	1,000	1,000	1,000	0	0	1,000	1,000	1,000	1,000
CZ	0,997	1,005	1,000	1,000	2 486	0	1,000	1,000	0,998	0,999
HU	*0,912*	*1,069*	*0,944*	*1,052*	*1 391 212*	*207 321*	0,956	0,959	*0,949*	*0,951*
PL	0,956	1,047	0,971	1,025	29 502	17 025	0,981	0,987	0,976	0,979
SK	0,978	1,020	0,984	1,011	9 425	3 067	0,992	0,995	0,987	0,991

Note: * Coefficient of efficiency = average efficiency rate of country in period 2000-2010
IO = input oriented model, OO = output oriented model
Source: Own calculation and elaboration, 2012

Table 2 shows position of individual V4 countries and Austria and Germany within selected models in terms of the order of achieved average values of efficiency coefficients in CCR, BCC, FDH and FRH models or sum of values of additional variables in SBM models over the period 2000-2010. The overall evaluation of individual countries shows that the best results, in terms of efficiency in all used DEA models, *Austria* and *Germany* have reached and are ranked in *first place* during the whole period. These countries thus effectively utilize their competitive advantages and have the highest development potential. In *second place*, there is *the Czech Republic*, which was evaluated as highly efficient, as it has reached full level of efficiency in BCC and FDH models, also in SBM model with VRS, and high level of efficiency in CCR and FRH models, in SBM model with CRS too. *Slovakia* and *Poland* are ranked in *third* and *fourth place* because they have reached the lower values of efficiency coefficients in CCR, BCC, FDH and FRH models, and higher sum of values of additional variables in SBM models. *Hungary* was ranked in *last – fifth place*, because it was classified as *inefficient* and reached the lowest values of efficiency coefficients in CCR, BCC FDH and FRH models, and the highest sum of values of additional variables in SBM models.

Table 2: Ranking of V4, Austria, Germany in DEA Models by Values of CEs

Country	DEA MODELS											
	CCR IO	CCR OO	BCC IO	BCC OO	SBM CRS	SBM VRS	FDH IO	FDH OO	FRH IO	FRH OO	Average Rank of Country*	Absolute Rank of Country*
	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank		
AT	1	1	1	1	1	1	1	1	1	1	1,0	**1.**
DE	1	1	1	1	1	1	1	1	1	1	1,0	**1.**
CZ	2	2	1	1	2	1	1	1	2	2	1,5	**2.**
HU	5	5	4	4	5	4	4	4	5	5	4,5	**5.**
PL	4	4	3	3	4	3	3	3	4	4	3,5	**4.**
SK	3	3	2	2	3	2	2	2	3	3	2,5	**3.**

Note: * Average and absolute ranking of V4, Austria and Germany is based on their rank in selected DEA models in period 2000-2010
IO = input oriented model, OO = output oriented model
Source: Own calculation and elaboration, 2012

4. Conclusion

Based on the DEA analysis was found out that there is (in V4, Austria and Germany) a distinct gap between economic and social standards in terms of evaluated countries, so differences still remain. Development in V4 countries has a trend towards more advanced Austria and Germany. There was a growth in their performance, increasing trend in effective use of their advantages and improve in competitive position. But most countries experienced also a decline in their performance (outputs decline as a result of declines in inputs) as a result of economic crisis. The recent economic crisis has seriously threatened the achievement of sustainable development in the field of competitiveness. The crisis has underscored the importance of competitiveness – supporting economic environment to enable national economies to better absorb shocks and ensure solid economic performance going into the future.

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Appendix

Table 1: Interpretation of Inputs Included in Framework of DEA Analysis

Dimension	Pillar	Indicator
Inputs	**1. Institution**	Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption
	2. Macroeconomic Stability	Income, Saving and Net Lending/Net Borrowing, Harmonized Index of Consumer Prices, General Government Gross Debt, Total Intramural Research & Development Expenditure, Labor Productivity per Person Employed, Gross Fixed Capital Formation
	3. Infrastructure	Motorway transport - Length of Motorways, Railway transport - Length of Tracks, Ai, Transport of Freight, Air Transport of Passengers, Volume of Passenger Transport, Volume of Freight Transport
	4. Health	Hospital Beds, Road Fatalities, Healthy Life Expectancy, Infant Mortality Rate, Cancer Disease Death Rate, Heart Disease Death Rate, Suicide Death Rate
	5. + 6. Primary, Secondary and Tertiary Education, Training and Lifelong Learning	Mathematics-Science-Technology Enrolments and Graduates, Pupils to Teachers Ratio, Financial Aid to Students, Total Public Expenditure at Primary Level of Education, Total Public Expenditure at Secondary Level of Education, Total Public Expenditure at Tertiary Level of Education, Participants in Early Education, Participation in Higher Education, Lifelong Learning, Early Leavers from Education and Training, Accessibility to Universities
	9. Indicators for Technological Readiness	Level of Internet Access, E-government Availability

Source: Annoni, Kozovska, 2010; own elaboration, 2012

Table 2: Interpretation of Outputs Included in Framework of DEA Analysis

Dimension	Pillar	Indicator
Outputs	**7. Labor Market Efficiency**	Employment rate, Long-term unemployment, Unemployment rate, Labor productivity, Male employment, Female employment, Male unemployment, Female unemployment, Public expenditure on Labor Market Policies
	8. Market Size	Gross Domestic Product, Compensation of employees, Disposable income
	10. Business Sophistication	Employment in sophisticated sectors, Gross Value Added in sophisticated sectors, Venture capital (investments early stage), Venture capital (expansion-replacement)
	11. Innovation	Human resources in Science and Technology – Core, Human resources in Science and Technology, Patent applications to the EPO, High-tech patent applications to the EPO, ICT patent applications to the EPO, Biotechnology patent applications to the EPO, Total patent applications, Employment in technology and knowledge-intensive sectors, Employment in technology and knowledge-intensive sectors-by gender, Employment in technology and knowledge-intensive sectors-by type of occupation, Employment in technology and knowledge-intensive sectors-by level of education, Total intramural R&D expenditure

Source: Annoni, Kozovska, 2010; own elaboration, 2012

Change of the Population Size and the Ageing Process of the EU Countries after 1990

Ivan Šotkovský
VŠB – Technical University of Ostrava
Faculty of Economics, Department of Regional and Environmental Economics
Sokolská třída 33, 701 21 Ostrava 1, Czech Republic
ivan.sotkovsky@vsb.cz

Abstract
The article deals with the demographic changes differences between European Union countries. We research their population size changes during last 20 years. The dynamic spatial typology is carried out on the basis of a series of values of the following two basic demographical indices: the crude rate of natural increase (CRNI) and crude rate of net migration (CRNM). The typology of the ageing process is given weigh of the children's and oldest component in the year 2010. Our principal aim is to group the all 27 EU countries to the different population ageing groups: gently ageing population, ageing population, old population and very old population.

Keywords: *Ageing index, elderly ratio, children ratio, natural increase, net migration*

JEL codes: *C46, J11, J13, J14, R23*

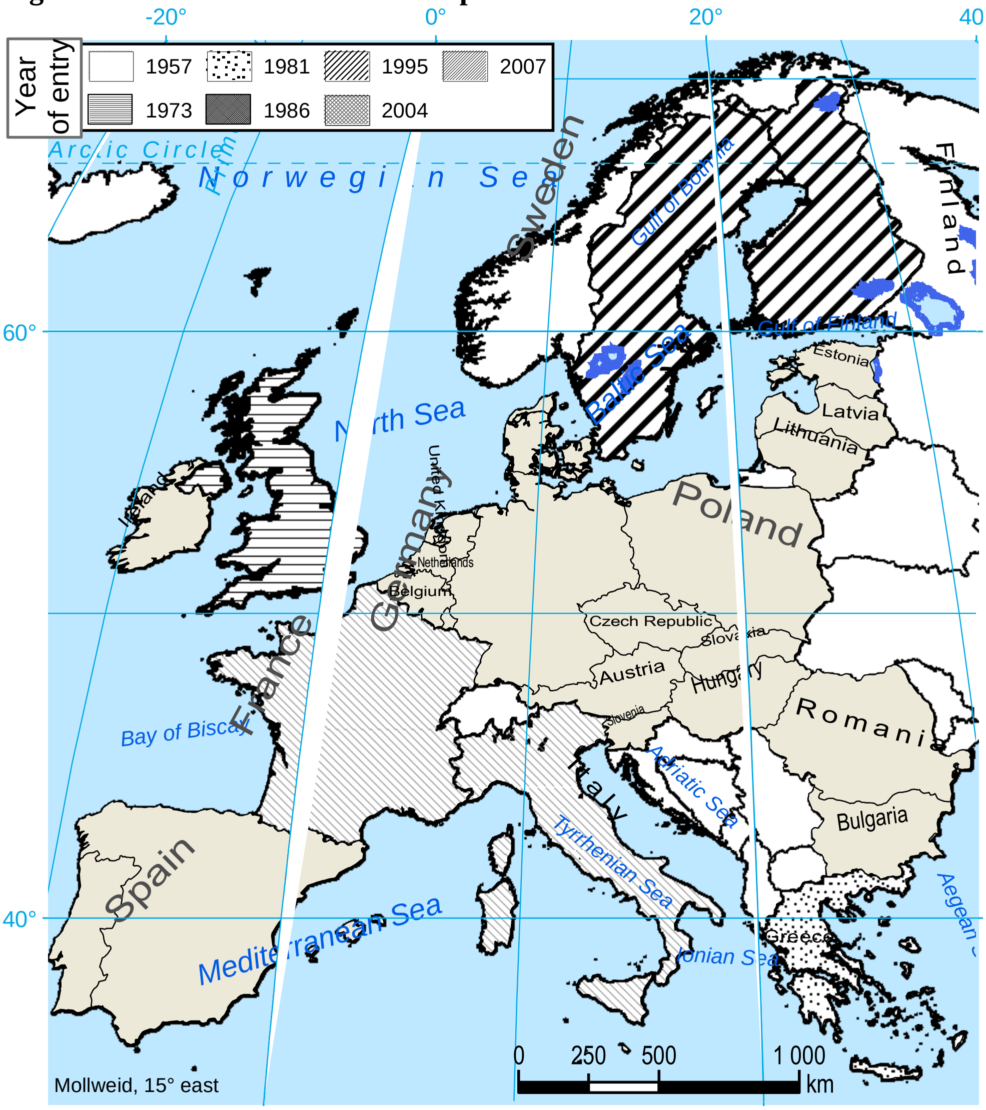
1. Introduction

The European Union was formally established when the Maastricht Treaty came into force on 1 November 1993. But the European Economic Community was founded in 1957. The European Union is an economic and political union of 27 member states now (Figure 1).

We can see that the process of spreading the European Union was very dynamic for the last more than fifty years (Šotkovský, 2011). Nowadays nearly 73 % of the whole European population live there. And the area of that region represents 42 % of European continental territory. The population plays an important role in all fundamental economic activities, i.e. production, consumption and barter.

The total population change depends on the size of natural increase and migration (Newell, 1994). The population growth is primarily caused by natural increase, that is, the excess of births over deaths. But in any particular region, migration will cause population growth when the amount of immigration exceeds the amount of emigration. And in the present European Union migration is a more significant cause of population growth than the natural increase. Both population growth and migration can affect the quality of the natural environment, the likelihood of conflicts, and social cohesion between ethnic groups. From our point of view, the significance of both population growth and migration is often underestimated by governments and non-governmental organisations.

Figure 1: Member states of the European Union



Source: Author, 2012

2. Analytic approaches and methodology of the sociodemographic process

The natural increase is the rise in population caused by the birth rate (***B***) exceeding the death rate (***D***) and excludes any population change due to migration. Crude rate of natural increase (***CRNI***) is the number of persons added to the population due to the natality and mortality over a given time period (e.g., 1, 5 or more years) and divided by the total mid-year population (***P***) and multiplied by 1,000 (1). We can say that ***CRNI*** is equal to the difference between the crude birth rate (***CBR***) and the crude death rate (***CDR***).

$$\boldsymbol{CRNI} = \frac{\boldsymbol{NI}}{\boldsymbol{P}} \cdot 1{,}000 \; [‰] \text{ or } \boldsymbol{CRNI} = \frac{\boldsymbol{B - D}}{\boldsymbol{P}} \cdot 1{,}000 \text{ or} \quad (1)$$

$$\boldsymbol{CRNI} = \boldsymbol{CBR} - \boldsymbol{CDR}$$

The population change (Šotkovský, 2008) in an area is determined partly by the level of natural increase (***NI***) and partly by the level of net migration (***NM***), the difference between the numbers moving in (immigrant, ***I***) and moving out (emigrant, ***E***). Crude rate of net migration (***CRNM***) is simply the net migration in a year divided by the total population at mid-year and multiplied by 1,000 (2). That is:

$$\boldsymbol{CRNM} = \frac{\boldsymbol{NM}}{\boldsymbol{P}} \cdot 1{,}000 \; [‰] \text{ or } \boldsymbol{CRNM} = \frac{\boldsymbol{I - E}}{\boldsymbol{P}} \cdot 1{,}000 \; . \quad (2)$$

The population over time can be quantified as the number aggregate of the natural increase (***NI***) and net migration (***NM***).

The basic indicators which can show share of very important age groups are children and elderly ratio (Šotkovský, 2009). Very often we can compute the percentage substitution subsequently:

$$\boldsymbol{children\ ratio} = \frac{\boldsymbol{P}_{0-14}}{\boldsymbol{P}} \cdot 100 \, , \quad (3)$$

$$\boldsymbol{elderly\ ratio} = \frac{\boldsymbol{P}_{65+}}{\boldsymbol{P}} \cdot 100 \; . \quad (4)$$

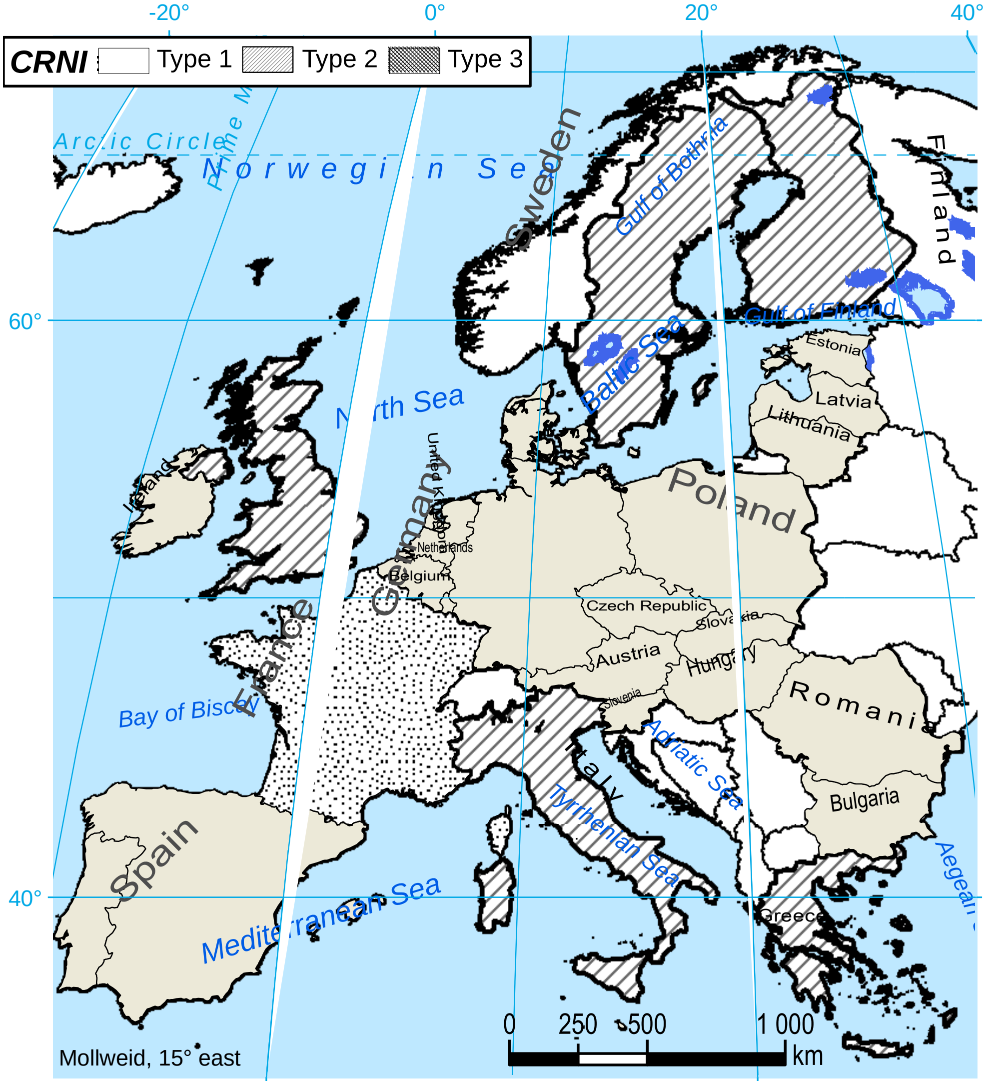
Their common weights we can compare by the help of the ageing index (AI). The ageing index (Šotkovský, 2010) show us the relatively weight of the elderly to children (5).

$$\boldsymbol{AI} = \frac{\boldsymbol{P}_{65+}}{\boldsymbol{P}_{0-14}} \cdot 100 \; . \quad (5)$$

3. The analysis of the natural increase

We have three different groups as a result of the dynamic spatial typology of the natural population change for the last two decades (Figure 2).

Figure 2: Cartogram of the type of CRNI in EU countries (1990 - 2009)



Source: Author. 2012 (Eurostat data)

1. The first group of the natural change aggregates the regions of Ireland, Cyprus, Malta, the Netherlands, Luxembourg and France with the minimum values of ***CRNI*** 4 ‰. Actually, Ireland has ***CRNI*** over 10 ‰ (year 2009).
2. The most numerous group is the second one. Lithuania, the Czech Republic, Romania, Germany, Sweden, Slovakia, Poland, the United Kingdom, Finland, Spain, Denmark, Belgium, Portugal, Austria, Italy, Slovenia and Greece have positive ***CRNI***, but less than 2 ‰.
3. The worst situation is in Estonia, Hungary and especially Latvia and Bulgaria. Bulgaria has lost nearly 13 % of the population during the last twenty years. The value of the natural increase of this group is negative for the last two decades (Figure 2).

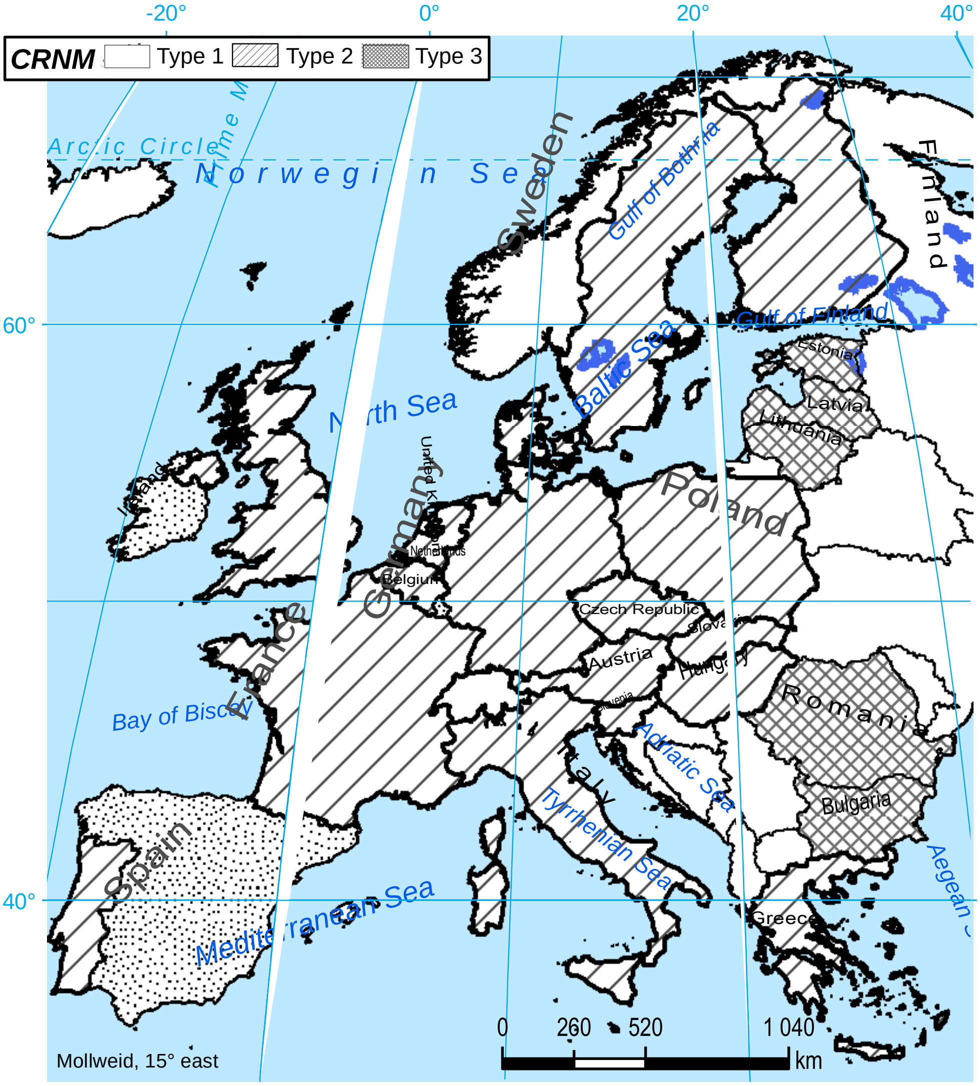
4. The analysis of the migration behaviour

The population growth is primarily caused by the natural increase. But in any particular region, migration will cause a population growth when the amount of immigration exceeds the amount of emigration. The continually extending immigration has social consequences.

In the present European Union, migration is a twice greater weight of population growth than the natural increase. The average value of crude rate of the net migration was 2.2 ‰ at European Union for the last twenty years. Now it is less than 2 ‰. The greatest population growth owing to migration was between the years 2002 and 2007 in the EU. The value of ***CRNM*** exceeded the level of three per mile. The maximum was achieved in the year 2003 (4.2 ‰). The results of dynamic typology for the last twenty years are:

1) The best situation is in these countries: Cyprus, Luxembourg, Spain and Ireland. Their net migration was more than 5.0 ‰ (type 1, Figure 3).
2) The second group is the most numerous with eighteen countries: Greece, Slovakia, Poland, the Netherlands, Germany, Austria, Italy, Portugal, Slovakia, the Czech Republic, Malta, Sweden, Belgium, the United Kingdom, France, Denmark, Hungary and Finland. The indicator crude rate of net migration (***CRNM***) was moving between 2.0 and 4.9 ‰.
3) An expressively nonperspective situation was typical for the following five EU members: Romania, Bulgaria, Lithuania, Latvia and Estonia. Their annual value of ***CRNM*** was negative from -9.0 to -1.0 ‰.
4) We have seven European Union countries with a significant population growth caused by net migration in the last time. These countries (Luxembourg, Greece, Sweden, Italy, Belgium, Spain and Denmark) possess ***CRNM*** of three and more per mile (Figure 3). Today, a greater ***CRNM*** decrease occurred in Cyprus and Ireland.

Figure 3: Cartogram of the type of CRNM in EU countries (1990 - 2009)



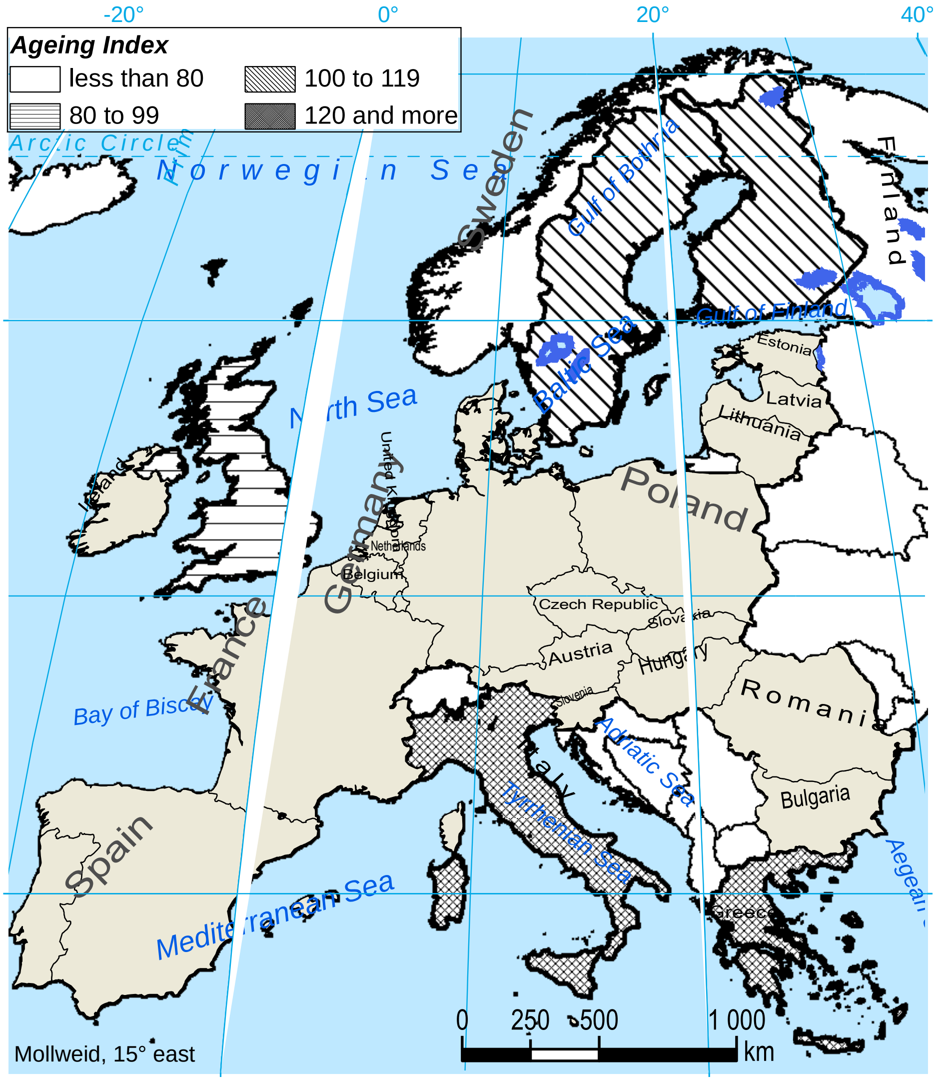
Source: Author, 2012 (Eurostat data)

5. Ageing process of the EU countries

Ageing index says how many elderly fall on every hundred children. If ageing index is less than one hundred, than on the territory lives more children than elderly. On the other hand when the ageing idex is bigger than one hundred, this mean, that on the territory lives more elderly than children.

The typology of the ageing process is given weigh of the children's and oldest component which is expressed by ageing index (Figure 4). Our principal aim is to group the all 27 EU countries to the different population ageing groups: gently ageing population (***AI*** is less than 80), ageing population (***AI*** is between 80 and 99), old population (***AI*** is between 100 and 119) and very old population (***AI*** is more than 120).

Figure 4: Cartogram of the ageing index in EU countries (2010)



Source: Author, 2012 (Eurostat data)

There are gently ageing population in the Ireland, Cyprus, Luxembourg and Slovakia. They have fundamentally more children than oldest people till this time. Others seven countries (Netherlands, Denmark, France, Poland, Malta, UK and Romania) have more children still. But the other sixteen EU countries have old population because they have more senior than children. Very old populations have Germany, Italy, Lithuania, Bulgaria and Greece of them. A little better situation is in the last eleventh countries: Belgium, Finland, Czech Republic, Latvia, Sweden, Estonia, Hungary, Spain, Slovenia, Portugal and Austria. But they population is old too and their ageing index is greater than 100.

6. Conclusion

The world's current (overall as well as natural) growth rate is about 11.4‰. The maximum of the total population growth on the EU territory was achieved during the period 2002 to 2008 (around value 4.4. ‰). The mean of the crude total population increase rate in the whole period 1990 to 2009 was 3 ‰ in the European Union. Sixteen countries from northern, western and southern Europe grew together more than the whole EU. Only eleven countries from central and south-eastern Europe had none population growth or visible loosed population size.

The population change evoked by international migration (not the population growth caused by natality) can contribute to political instability and conflicts. The main cause of population growth in European Union in recent years is immigration, not natural increase. And this situation will be very probably a decisive power for whole 21st century in the EU.

Very old population will be in every European Union country in the year 2050. Ageing index will be over 300 in five EU countries: Germany, Spain, Italy, Portugal and Austria. There will be ageing index more than 200 in the next seven countries inclusive the Czech Republic.

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Czech Crown and Euro (On Some Methodological Levels of the Issue)

František Varadzin
VSSS Havířov
Department of Economy
Vítězslava Nezvala 801/1, Havířov, Czech Republic
varadzin@vsss.cz

Abstract
This paper deals with the relationship between the Czech crown and the euro .It focuses on basic methodological postulates related to the formation of their mutual relationship. The initial postulate is the idea that the Czech economic thinking incorrectly reflects the economic realities of the contemporary world and focuses on rather marginal issues in terms of pinpointing necessary approaches. It recognizes the solution for the Czech economy and society not in the discussion on forms of currency, but in finding adequate approaches to the development, which will lead to the accomplishment of the further development.

Keywords: *Czech crown, euro, international monetary system*

JEL codes: *B41, E52, F15*

1. Introduction

Economic thinking has been experiencing serious crisis for a longer period of time, which manifests itself in a deviation from the results of the past. The aim is not to develop, but ignore prior knowledge. As an example, one can state the defence of including prostitution into the GDP published on the CZSO website. *"From a strictly economic perspective, the provision of sexual services (prostitution) service is like any other. As foreigners can be provided massages, which leads to the export of services, so many foreign tourist use the sex services and it becomes part of the circulation of goods, services and revenue. If we excluded from the description of this cycle any of the article, we would commit grosser or, as a providers of sexual service spay the rent, electricity and water and spend their earned money for their own consumption, in a completely legal sphere .If we did not calculate prostitution, then we would lack a source of the disposable income of prostitutes when balancing individual transactions. Last statistics used was to describe only what is in terms of the society correct, under the previous regime."* (CIA, 2012)

Let a dear reader consider some issues hidden in that statement.

1. First, if payments for sex are imputed to households, our GDP will increase and we can finally find a source of income for the reimbursement of contraception. There is also another source of growth discovered. It will suffice to take the obligation to pay for sex and mount the appropriate cameras.

2. Second, I always thought that it does not matter whether there are one hundred thousand soldiers or teachers, but now I'm dangerously adherent of the "old regime".
3. Third, with regard to the old regime, the Marxist perspective always discussed productive and unproductive labour in relation to the value creative process and the work is understood as a historical category.(ČNB, 2011)

It would be useless to state that this is not more than likely the way to go further in developing the national economy, however we will probably have to return to the early foundations of economic thinking, and discuss the measurement of the economic activity, the meaning of categories such as wealth, jobs, and restore values along with their specific historical contents, if the economy does not want to become a blind alley of human thinking, as it was the case of scholasticism. I'd hate to be alive to experience international economists comparing physical and value sex productivity and talking about the differences in the price determine area.

What is specific about the Czech crisis of economic thinking is that it is closing itself and creating a kind of spirit of excellence, through which I can ignore everything except my simplified postulates. As an example to show one can see the appearance of CNB Governor at the Žofín Forum [13.3.2012 ČT 24]. He pointed out the limitations of fiscal policy in terms of an open economy. Though not mentioned directly, he most likely based on the existence of a foreign trade multiplier. He concluded that it was not too good to support the economy by means of fiscal policy. But then again it is half of the problem. All people involved suspect something about our strong connections with the German economy, which is about 11 times larger (measured by GDP in PPP).The basic question is, whether multiplier effect is stronger from us in the FRG or our in the FRG. Unfortunately, the Czech economic thinking has not grown up to such complications. Let us there for me now question the existence of the crown and the euro, as currently formulated, because this is a fundamental strategic decision for our future economic development.

2. Problem formulation

Whether you like it or not, our society has decided to join the EU project in a referendum. It is possible that some one eventually has changed his mind done way or another, but if any community should function, it must comply with the agreed rules. And for economists it should not be surprising that in addition to income one has to also reimburse the costs.

Even now on the basis of that rule some of the controversy related debates about the introduction of the euro seem to be problematic if the authors do not define a clear commitment to the EU withdrawal as well as a creation of a new strategy of our existence in Europe. Then they will have to explain not only income, but also costs of the new strategy. This logically consistent approach is not observable in discussions.

The second approach is legitimate in establishing a new concept of the European integration, attracting other countries and changing the internal environment of the EU so that it would better reflect the integration processes. On the other hand in our economic literature no major contributions as to the nature of integration processes swell as forms of integration have been reported.

Most of the Czech economic debates, however, take place in completely different situations. Their common denominator is not system discussions, but their basis is to emphasize the difficulties that accompany this transition system.[71]

3. Problem solution

For the factual understanding of the relationship of the Czech crown and the euro let us look first at the basic nature and then links of those currencies.

After the Second World War with the emergence of the Bretton Woods monetary system, European currencies had been tied together through the dollar gold standard. This tie ended relatively early in Czechoslovakia, in connection with the rejection of the Marshall Plan and the February events in 1948. However, it has to be said that Czechoslovakia (CSSR) by adjusting the outer years maintained external balance unlike PLR, MLR, and others. (The basic orientation, see CZSO; Fischer, Ondruš, Sixta, 2012; ČNB, 2011, 2012) Western European currencies, however, in connection with the collapse of the Bretton Woods monetary system had to solve a methodological problem. The unstable dollar continued to be in the position of the base currency and thus unsecured the exchange and whole payment system between them. We know the answer. The idea of the European Monetary System being transformed into the Euro and the exchange rate mechanism (ERM) had been approved.

It was understand able and logically expectable evolutionary line that coincided with the emergence of the single market, free movement of persons and capital. Here we have to recognize the fundamental methodological weaknesses of the opponents of the euro.

1. First, the EU is the biggest economic group in the world. GDP in PPP reaches15 390billion dollars, the U.S.' GDP in PPP amounts to 15,040 billion. The third place is occupied by China with GDP, which equals to 11 290 billion (Marx, 1968). The absence of a single currency in this group accounts for a continuous exposure of individual countries to risks associated with currency volatility.

2. The existence of different currency is within the EU means an increase in the transaction costs of business transactions (payment for currency conversions, insurance against the risk) it is the legitimate question that benefits from it.

[71] Due to the scope of the paper, we do not intend to analyse the discussion in detail, however it is enough to point out the production of the Center for Economics and Politics or representatives'speeches at the Žofín forum.

3. Should a single market for goods and services be really an effective instrument, a uniform scale of prices has to be on the basis of the knowledge of the economic theory. Otherwise there is no rational calculation, by means of a measurement of actual costs, the optimal allocation of production resources cannot be guaranteed. Political pressures to set conditions on relatively isolated markets are becoming decisive.
4. The so-called euro crisis does not relate to the fact of how to perform its function of money, but then the debate over access to money in general and their role in the economy. It is therefore a new phase of the euro. In it, one deals with a delineation of monetary policy and its timing in terms of needs and interests of individual countries. This problem would occur even without the debt crisis, as it shows us the incompleteness of fiscal policy and ignoring theoretical ideas about the interconnectedness of monetary and fiscal policy. However, these problems again are not addressed by our economists. The theoretical work on an optimum currency area is an exception.

Their basic argument lies in the loss of sovereignty, as an independent implementation of monetary policy is one of their essential attributes. But then we have a huge methodological problem. For instance, another attribute of sovereignty is the ability to defend itself against the external peril. On the other hand, most opponents of the euro do not show an attempt to secure self-defence. They would also tell the nation how much it will cost.

The consistency of this approach is not required in the area of legal systems. Let us think through the fact that intellectual property of multinational companies is protected, regardless of the needs of the economic development, investment protection agreements are set entirely detrimentally, etc.

Therefore, the question a rises whether this is the principle or the interests of certain economic power groups. There is no room for analysing the attitudes of certain circles of the U.S. to the euro; on the other hand it is evident that they do not want to watch passively displacing the dollar on international transactions. Moreover, in our national economy, some institutions have a considerable income from currency conversions.

On the contrary, as a justified reservation seems the argument in relation to the non-interconnectivity of individual markets along with the different requirements to the nature of monetary policy at the given moment. On the other hand, differences in the regional development are not handled by the monetary policy even in the U.S., China or Russia. The following problem, which arose by outrunning political proclamations and actions against economic realities, has to be dealt with by a different approach to the regional and cohesion policies.

Totally unacceptable is the argument about the "health of our currency" and the "sickness of the euro". The position of our currency is determined by the status of our economy in the EU and the world. If we study the Report of Balance of Payments in 2010 (total for 2011 at the time of writing the paper has not yet been published), then for the imports in 2010, we had to pay 2 320,9 billion CZK, 349.6 billion CZK for services, 344.4 billion CZK to foreign countries due to the use of foreign factors of production, and transfers abroad amounted to 76.2 billion CZK. (Průcha, 1997, p.4-6; Průcha, 2009) The total accounted for obtaining foreign funds amounting to 3 091,1 billion CZK simultaneously with the GDP of 3 775,2 billion CZK (CZSO). Even when the amount of foreign currency reserves at 31.12.2010 amounted to 796.8 billion CZK (CIA, 2012) it is obvious that at this degree of the openness of the economy it is not healthy to look indifferent to the risk of the destabilization of the euro and thus our main sales markets. No later than in six months it should reflect the position of our crown, since our ability-to pay can be challenged along with all its negative consequences.

4. Conclusion

The question of adopting the euro is not so much a matter of our position, but the overall trends in the economic life and the world economy. It will suffice to follow the rise of China, which during the1997-1998 Asian crisis, kept the Hong Kong dollar and now starts to require a significant position in the IMF. Correspondingly in March 2012, the summit of BRICS countries signalled departure from the U.S. dollar in international financial transactions, and the dynamics of growth of these countries indicate pressure on the transformation of the international monetary system.

The idea that we will avoid turbulences and we will be a "port in a storm" is likely to miss the reality. The solution is not to deny these and other factors (energy vulnerability, a gap in labour productivity, the need to address transport infrastructure, etc.) that complicate further development opportunities, the solution is in there definition of national sovereignty in the face of integration processes and in order to find the optimal strategy development while respecting conditions of our existence.

This of course cannot be achieved regardless of our neighbours and allies. In other words, there can be no naive procedures which do not respect the surrounding development. For instance, it is quite an erroneous conception that the development of our interest rate may go against the development of the rate of the European Central Bank for several periods of time without serious consequences for our economy.

The problem does not lie in the fact whether we accept or do not accept the euro, but how we will participate in the process of linking economies, who and why our ally be, etc. Unfortunately, it seems to me that the Czech economic thinking still does not provide answers to these questions, as well as it is mired in the phrases "the market will solve everything" or "we do not let Brussels dictate taxes", which completely ignores the fact that the same people set unequal market conditions, or are afraid to raise taxes on multinational companies.

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