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THE BETWEEN-COUNTRY INEQUALITY: DOES IT HINDER THE COMPETITIVENESS?

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Abstract

Nowadays the competitiveness is the significant premise to enhance the inhabitants well being. From this perspective on competitiveness has been given great attention in the literature and competitiveness hindrances have been studied as well. However the link between inequality and competitiveness is less studied, particular in case of the European Union. Thereby the author attempts to clarify the role of the between-country income inequality in hindering the competitiveness.

The data analysis shows that lower income countries have less ability towards strengthening the nation economy competitiveness thereby reducing overall European Union competitiveness level. Obviously the country's competitiveness success degree is determined by the country's income level. Higher income gives comparative advantage for nation to invest in the science, research and development thereby improving competitiveness. On the one hand between-country inequality provides competitive advantage for some countries against other. On the other hand inequality reduces the European Union competitiveness in the global market.

The other findings show a slow convergence of income inequality between European Union countries over the time period from 2006 till 2010. People's welfare characterized by GDP per capita has improved in almost all European Union countries, particular in transition countries, while between-country inequality has not changed significantly and is still relatively high.

Keywords: inequality, competitiveness, European Union.

JEL Classification: O15, O39, 052.

Introduction

Income inequality is complicated and very conflicting phenomenon of socioeconomics. On this issue have paid attention not only economists but also politicians, socialists and scientists whose fields are related to criminology, health care, education etc. Wide range of scientists have interested in inequality and its connection with various phenomena in the different fields of science. For example, Ranci (2011) suggested that there is no significant relationship between competitiveness and social inequality in urban areas. He found out that cities with higher levels of competitiveness do not exhibit higher levels of inequality than cities with lower performance and also the most globalised cities are not significantly more unequal than others. The study of Ranci is related with the within-country inequality. It would be important to clarify concepts of inequality used in this case. The three inequality concepts exist (Milanovic, 2006): within- and between-country inequality and global inequality. The within-country inequality is inequality among population or groups of population within one nation or region. The between-country inequality is inequality among countries and this study is related with this concept of inequality.

The article contains literature overview on competitiveness and between-country inequality and their relationship. The research based on statistical data analysis. To show the nation's ability to improve their competitiveness level the data on high technology exports and expenditure on research and development are used. The competitiveness dimensions such as social, cultural, political, geographical, demographical, etc. aspects were not included in this study. Data were collected from Eurostat for all 27 European Union countries. As the measure of nation's competitiveness the Global Competitiveness Index of the World Economic Forum for 2006 and 2010/2011 for European Union countries is used in this study. The author used correlation diagrams to find relationship between income inequality and nation's competitiveness as well as between inequality and some competitiveness factors mentioned above.

There are lot of definitions of competitiveness, but they are not considered in this article since definitions and measurements of competitiveness have been discussed by many authors and organizations (for instance: Dimian & Danciu, 2011; Macerinskiene & Sakhanova 2011; Razavi, Ghasemi et al., 2011; Skribāne & Neiders, 2006 etc.). In this article competitiveness is used in perspective of nation's competitiveness in international trade.

There are many components that can improve or hinder nation's economy competitiveness. One of them is public debt. The high public debt can hinder competitiveness however its impact depends on how it

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is spent. More detailed discussion on this issue is in The Global Competitiveness Report 2011-2012 (2011, p.6).

The article is composed as follows firstly the between-country inequality within European Union are analysed to show unequal distribution of incomes. The data of GDP per capita in 2006 and 2010 are used to show the between-country inequality and changes over the relevant period of time. Then author analyses facts and figures to reflect relationship between income inequality and competitiveness. The article ends with conclusions.

The between-country inequality

The between-country inequality or international inequality is inequality among countries. The measurement of the between-country inequality is gross domestic product (GDP) per capita. International inequality tries to take into account countries unequal population size by weighting each country by its population (Milanovic, 2006).

The author used data of GDP per capita and European Union population from Statistical Bureau of European Commission Eurostat[1].

The data analysis show (Figure 1) that welfare of population in the most of European countries has risen in greater or lesser degree (measured by GDP per capita in purchasing power standards (PPS), in thousands) while income hierarchy of countries has not changed significantly and income distribution between European Union countries in 2010 was largely the similar as in 2006.

There were number of cases when the rapid economic growth improved well-being of population. This connection it may be noted the transition economies such as Bulgaria, Romania, Poland and Slovakia. However these countries still can not reach the level of the advanced European Union countries (Figure 1). GDP per capita has increased in Luxembourg, Malta and Cyprus as well. At the same time GDP per capita has decreased in Italy and Spain however less than it decreased in Ireland and United Kingdom.

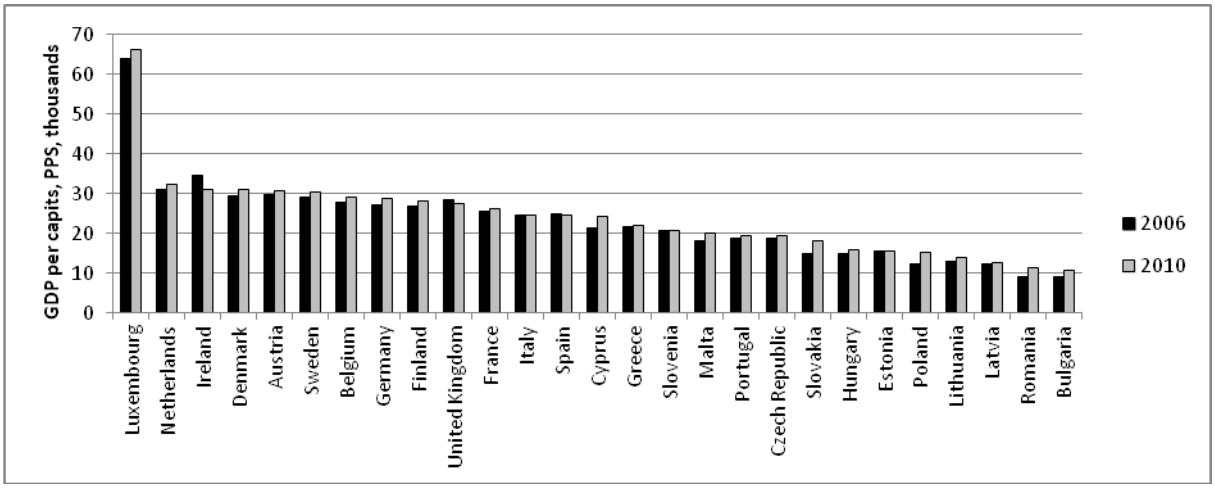

Figure 1. GDP per capita (PPS, in thousands) in European Union countries in 2006 and 2010
Source: developed by the author from the data of Eurostat

The distribution of income among countries is quite stable and it is unlikely that this situation will change in coming decades. It points to a slow convergence of income inequality between European Union countries over the period of time from 2006 to 2010.

GDP per capita and share of population are used to show the between-country inequality in European Union by taking into account countries unequal population size. In Figure 2 on the horizontal axis is GDP per capita (PPS, in thousands). On vertical axis is each country population share of total European Union 27 countries population. Columns describe data of the certain European Union country in 2010.

In 2010 the GDP per capita of the richest EU country – Luxembourg, was 6.2 times higher than it was in the poorest country – Bulgaria (Figure 2). It should be noted and retained that "Luxembourg" is as

[1] Statistical Bureau of European Commission: Eurostat. Available: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database Viewed 18.02.2012.

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extreme case. If Luxembourg is excluded then ratio of GDP per capita between the richest and the poorest country is as much less as before – 3.

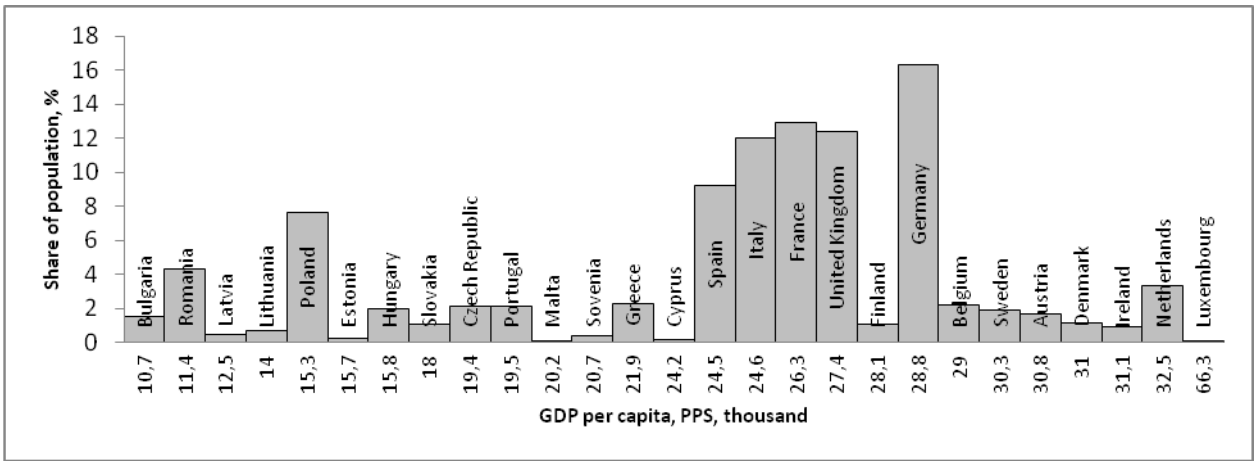

Figure 2. The distribution of the European Union countries by GDP per capita and share of population in 2010

Source: calculated and developed by the author from the data of Eurostat

As shown in Table 1, 25,3% of European Union population lives in twenty small countries with population up to 4% (of total EU population) in each country and 74,7% of European Union population lives in seven countries. Almost 64% of population lives in countries where GDP per capita (PPS) is between 24 500 and 29 000 (see also Figure 2). We can suggest that it is as "middle class" and that is a good that 64% of EU population is included in this group. On the other hand these are just few countries. GDP per capita in small countries is in a large range.

Table 1. The distribution of European Union countries by GDP per capita (PPS) and share of population (%) in 2010

GDP per capita (PPS)	Share of population		
	To 4 %	More than 4 %	Total
To 24 500	Bulgaria, Latvia, Lithuania, Estonia, Hungary, Czech Republic, Slovakia, Malta, Portugal, Greece, Cyprus, Slovenia	Poland, Romania	**25 %**
24 500 – 29 000	Finland	Spain, Germany, France, Italy, United Kingdom	**63,9 %**
More than 29 000	Belgium, Denmark, Ireland, Netherlands, Austria, Sweden, Luxembourg		**11,1%**
Share of population	**25,3 %**	**74,7 %**	**100 %**

Source: calculated and created by the author from the data of Eurostat

In this section the statistical data analysis on income distribution among 27 European Union countries is shown. The analysis of the between-country inequality by taking into account unequal population size of each country shows that there is a high level of the between-country inequality within European Union.

Inequality and competitiveness

The author explores the relationship between competitiveness and between-country inequality in this section. As measure of the competitiveness the score of the Global Competitiveness Index (GCI) of the World Economic Forum for 2006[2] and 2010/2011[3] for all European Union countries is used.

[2] Global Competitiveness Report 2006/2007 Executive Summary. World Economic Forum: p. XVII Available: http://www.scribd.com/doc/6295866/Global-Competitiveness-Report-20062007-Executive-Summary Viewed 15.02.2012.

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The methodology of calculation and amount of countries involved in GCI report were changed (Macerinskiene & Sakhanova, 2011), as the result there is no possibility to compare the scores of GCI in 2006 with GCI in 2010. Nevertheless we can compare European Union countries by GCI rankings (Figure 3).

The positions of Cyprus and Poland in competitiveness index ranking within European Union have significantly improved moving on from the least competitive countries in 2006 to the middle of rank in 2010. Romania, Italy, Denmark and Finland are in slightly better positions (plus two positions in rank) in competitiveness rankings in 2010 compared with 2006. However the competitiveness of Latvia and Slovakia economy has greatly reduced. The competitiveness of Greece, Spain and Malta has also decreased.

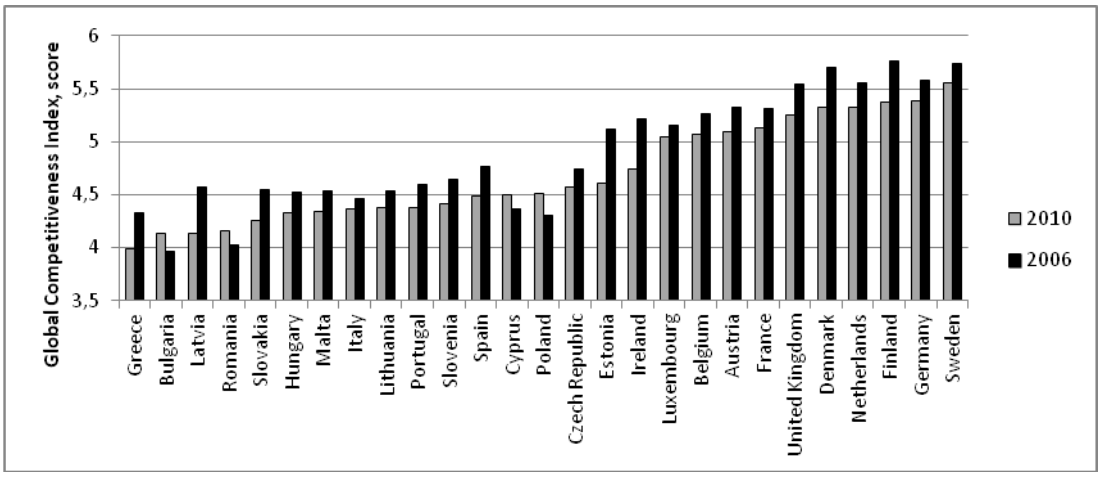

Figure 3. Global Competitiveness Index in European Union countries in 2006 and 2010
Source: developed by the author from the data of World Economic Forum

The movements of less competitive countries in Global Competitiveness Index rankings (among European Union countries) are greater than the movements of more competitive countries. Thus the countries with higher competitiveness index are stable in their positions and they are self-sufficient.

According to Waheeduzzaman (2002), in 1998 the countries with higher competitiveness score also had higher score on GDP per capita. In Figure 4 we see positive link between competitiveness index and GDP per capita. It means that the similar situations as in 1998, in 2006 and 2010 were observed. There is no evidence that something might change in the future. Thereby it is reasonable to conclude that, in a long-term perspective, nations with higher per capita incomes are more competitive that nations with less incomes.

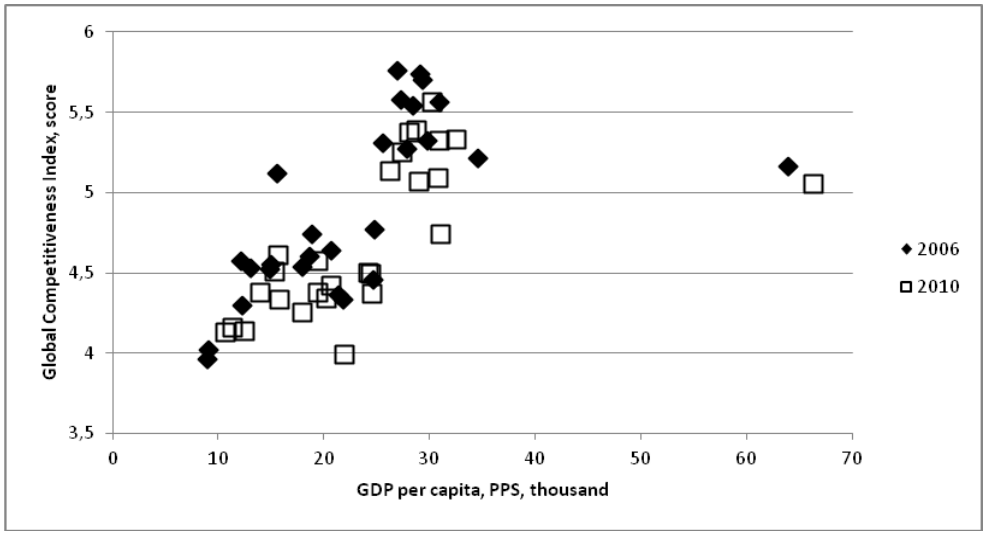

Figure 4. The distribution of the European Union (27) countries by the score of the Global Competitiveness Index and GDP per capita (PPS, in thousands) in 2006 and 2010
Source: developed by the author from the data of Eurostat (GDP per capita) and World Economic Forum (GCI score)

[3] The Global Competitiveness Report 2010-2011. World Economic Forum: Geneva, Switzerland 2010. p15. Available: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf Viewed 15.02.2012.

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In Figure 5 we see rather scattered distribution of European Union countries by exports of high technology products (a share of total exports) and GDP per capita. Higher GDP per capita is not strongly linked with country ability to produce and sale high technological products on international market. Thus it does not confirm that one of the main competitiveness driving forces is high technologies exports that make nations more competitive in the international trade.

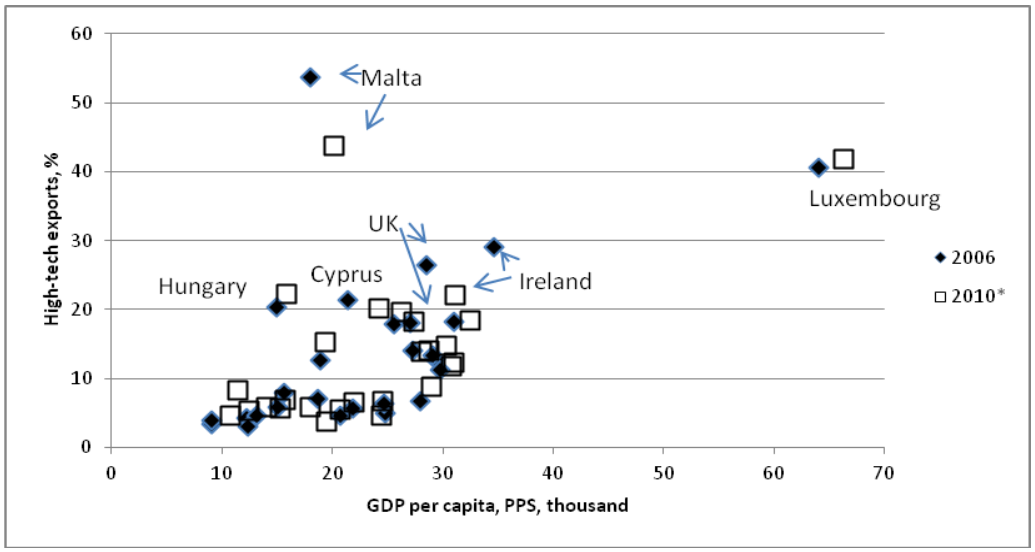

Figure 5. The distribution of the European Union (27) countries by exports of high technology products as a share of total exports and GDP per capita (PPS, in thousands) in 2006 and 2010

Source: developed by the author from the data of Eurostat

Attention and a separate study is deserved the case of Malta where the high technology exports is the highest in the European Union. It was 54% of total exports in 2006 and it reduced to 44% in 2010, despite of that the GDP per capita was higher in 2010 than in 2006. The global competitiveness index ranking of Malta from 2006 to 2010 also is decreased.

Despite the high amount of the high-tech exports Malta is one of the least competitive countries within European Union. Like the Ireland, Luxembourg, Hungary and Cyprus were not the most competitive countries (by Global Competitiveness Index) in European Union.

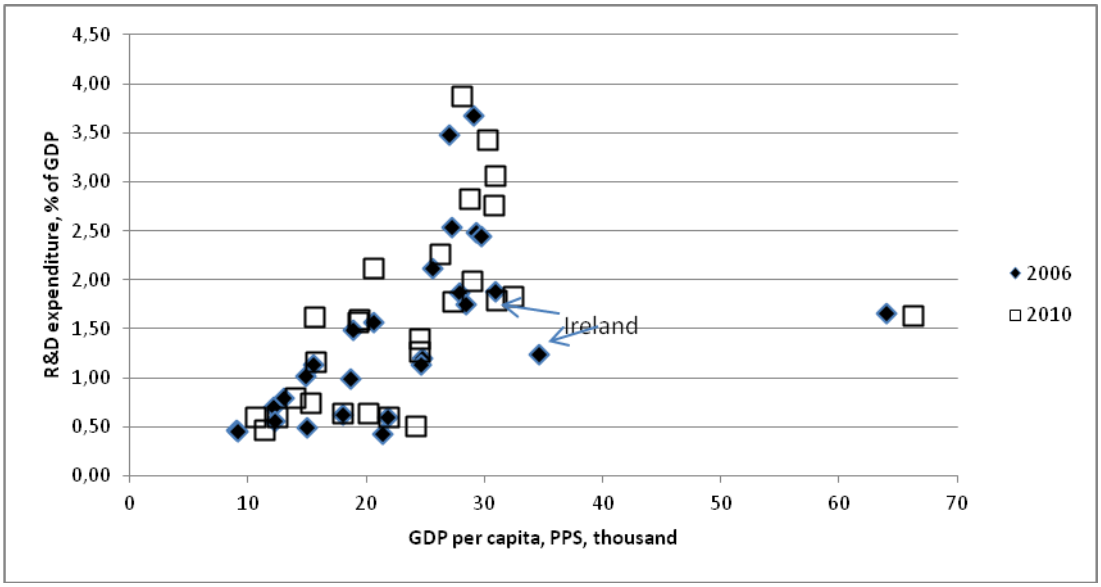

Figure 6. The distribution of the European Union (27) countries by R&D expenditure, % of GDP and GDP per capita (PPS, in thousands) in 2006 and 2010

Source: developed by the author from the data of Eurostat

In Figure 6 points describe certain EU country by their GDP per capita and expenditure on research and development as a share of GDP. The "2010" points are located mainly below respective "2006" points. It points that most European Union countries have increased their spending on research and development. As well as we can see positive relationship between GDP per capita and research and development expenditure. Countries with less income are unable to invest in science and research as much as rich countries. However Stavrevska (2011) pointed out that, innovation is a source of international competitiveness in a high-wage economy.

Attention and a separate study too is deserved the case of Ireland which GDP per capita and the high technology exports reduced in 2010. However the expenditure on research and development was much higher in 2010 than in 2006 and global competitiveness index ranking from 2006 to 2010 also increased.

Conclusions

- There is a high level of the between-country inequality within European Union and a slow convergence of income distribution between European Union countries has observed. The income distribution between countries is quite stable and still relatively high. It is unlikely that this situation will change substantially in coming decades.
- The countries with higher competitiveness score also had higher score on GDP per capita thus in a long-term perspective, nations with higher per capita incomes are more competitive that nations with less incomes. However it is not exclusive determinant of the country's competitiveness level.
- The data analysis on the cases of Malta and Ireland shows that each country has their own advantage to improve competitiveness.
- The movements of less competitive countries in Global Competitiveness Index rankings (among European Union countries) are greater than the movements of more competitive countries. Thus the countries with higher competitiveness index are stable in their positions and are strong in their ability to be competitive.
- In general, income distribution among European Union countries determines the certain country competitiveness level.

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