Income Inequality and Relative Poverty among the EU States

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Abstract

Poverty is one of the most significant socio-economic issues in the world. Typical for it is sustained low levels of income for members of a community, a lack of access to services like education, markets, health care, lack of communal facilities like water, sanitation, roads, transportation and communications. It is considered a "direct attack" on people's fundamental rights, limits the opportunities they have to achieve their full potential, brings high costs to society and hampers sustainable growth. The aim of this paper is to study the level of poverty within the EU, and the dynamics of income inequality among the EU countries. For this purpose, the report investigates the change in relative poverty levels within the EU for the period of 1995 – 2013 and national disparities in real income levels within the member-states, measured with sigma convergence. The results of this paper suggest that relative poverty within the Union decreased in the observed period, but income inequality among member-states increased. The findings of the report imply that faster growth in low income countries is not sufficient to improve income distribution across countries.

Keywords: income inequality, EU, sigma convergence, relative poverty, economic integration
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Introduction

Socio-economic issues are factors that have negative influence on an individuals' economic activity like lack of education, cultural and religious discrimination, overpopulation, unemployment and corruption. There are many varieties of socio-economic problems in the world, but maybe one of the most important that can be note is the poverty and related with it inequality. Poverty is a widespread obstacle for the future development of humanity. It is also perceived like a variable that determines one's socio-economic status – meaning, an individual's or group position within a hierarchical social structure which depends on a combination of variables, including occupation, education, income, wealth and place of residence. Understanding what causes global poverty is a crucial part of the process of devising and implementing effective solutions to tackling it.

But first of all we need to answer the question "Why it is important to study poverty?" It is important because "it affects everyone, whether it is directly or

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indirectly. Those people who are affected directly are those people who are facing the problem themselves or have family members or friends that are living in poverty. On the other hand, those who are affected indirectly are those who have to pay taxes to help those who are living in poverty."[1]

There are many factors and causes that lead to the emergence of this social problem. According Phil Bartle there is a difference between the concepts "cause" and "factor". In his opinion "…a "cause can be seen as something that contributes to the origin of a problem like poverty, while a "factor" can be seen as something that contributes after it already exists…", and the solution of this huge global issue will come with the elimination the factors that have contributed to it.

One of the problems with discussing poverty is clarifying what it means and how it can be defined. According EAPN poverty is generally divided into two types, absolute (extreme) poverty and relative poverty.

Absolute or extreme poverty is when people lack the basic necessities for survival. For instance they may be starving, lack clean water, proper housing, sufficient clothing or medicines and be struggling to stay alive. This is most common in developing countries. The United Nations tends to focus its efforts on eliminating absolute or extreme poverty. The first goal of The United Nations Millennium Development Goals is to eradicate extreme poverty and hunger. However, poverty in most EU countries is more generally understood as relative poverty.

Relative poverty is where some people's way of life and income is so much worse than the general standard of living in the country or region in which they live that they struggle to live a normal life and to participate in ordinary economic, social and cultural activities. What this means will vary from country to country, depending on the standard of living enjoyed by the majority. While not as extreme as absolute poverty, relative poverty is still very serious and harmful.

The aim of this paper is to study the level of poverty within the EU, and the dynamics of income inequality among the EU countries. For this purpose, the report investigates the change in relative poverty levels within the EU for the period of 1995 – 2013 and national disparities in real income levels within the member-states, measured with sigma convergence.

We all know that the European Union (EU) is political and economic union of 28 member states that are located primarily in Europe. EU policies aim to ensure the free movement of people, goods, services and capital within the internal market, enact legislation in justice and home affairs and maintain common policies on trade, agriculture, fisheries, and regional development.[2]

Literature review

The EU as a whole is the largest economy in the world, but poverty again is a one of the most widespread problem. This is contrary to the aims and the expectation that

[1] Why_are_studies_importanthttp://www.answers.com/Q/Why_are_studies_important#slide=1
[2] European Union https://en.wikipedia.org/wiki/European_Union

integration will lead to income equalization and a reduction of inequality between member states.

Inequality unlike poverty shows how resources are distributed across the whole society. Data from it is vital when considering poverty, as the overall distribution of resources of the country affects the extent and depth of this kind problem. This shows and that the problem of poverty is fundamentally linked to the issue of how resources are distributed and redistributed in a country.

There is no one single definition of poverty. According Scottish Poverty Information Unit "poverty is defined relative to the standards of living in a society at a specific time. People live in poverty when they are denied an income sufficient for their material needs and when these circumstances exclude them from taking part in activities which are an accepted part of daily life in that society." Other definition from business environment is "condition where people's basic needs for food, clothing and shelter are not being met." Poverty is disambiguation also as "condition of having insufficient means to obtain basic necessities of life, such as food, shelter, and clothing" or "the deficiency of dearth or required or preferred characteristics". Watts's point of view about poverty is interesting according to witch it is "a property of the individual's situation, rather than a characteristic of the individual or of his pattern of behavior"[3].

Poverty depends mainly on the resources people have and the conditions in which they live. And "as the generally accepted EU definition of poverty is based on national standards, people can be poor with rather different incomes in various country"[4].

This major socio-economics problem is interesting theme for researchers and many scientific studies have been conducted to find ways to fight it. Main part of each one study is the measurement. According World Bank "the most commonly used way to measure poverty is based on incomes. A person is considered poor if his or her income levels fall below some minimum level necessary to meet basic needs. This minimum level is usually called the "poverty line". What is necessary to satisfy basic needs varies across time and societies. Therefore, poverty lines vary in time and place, and each country uses lines which are appropriate to its level of development, societal norms and values.[5] Within the EU, the proportion of poor people is measured through a poverty line. Its amount is determined annually depending on the change of income in the whole society by determining the median equalized disposable income. That is why we are talking about relative poverty (relative to the level of income in a society) and not about absolute poverty based on the amount necessary to satisfy basic life needs. In the business environment poverty line is considered as standard family income threshold (set by each state and revised occasionally) below which the family

[3] Harold W. Watts. "An Economic Definition of Poverty." In Daniel P. Moynihan, On Understanding Poverty. New York: Basic Books, 1968.

[4] Orsolya Lelkes / Katrin Gasior • income poverty in the eu http://www.euro.centre.org/data/1295444473_73292.pdf

[5] Wealth & Health Inequalities; BBC http://www.bbc.co.uk/scotland/education/ms/wealth/def_of_poverty/definitions.shtml

is officially classified as poor and entitled to welfare assistance.[6] When we taking the poverty threshold from each country we can talking about “International monetary threshold” under which an individual considering to be living in a poverty.

The main poverty line used in the OECD and the European Union is a relative poverty measure based on “economic distance”, a level of income usually set at 60% of the median household income.[7]

As we already know that the type of poverty are two – absolute and relative. Both of them are usually based on a person’s yearly income and frequently take no account of total wealth. Some people argue that this ignores a key component of economic well-being. Major developments and research in this area are suggest that standard one dimensional measures of poverty, based mainly on wealth or calorie consumption, are seriously deficient. This is because poverty often involves being deprived on several fronts, which do not necessarily correlate well with wealth.

Access to basic needs is an example of a measurement that does not include wealth. Access to basic needs that may be used in the measurement of poverty are clean water, food, shelter and clothing. It has been established that people may have enough income to satisfy basic needs, but not use it wisely. Similarly, extremely poor people may not be deprived if sufficiently strong social networks, or social service system exist.[8] Both of the official poverty measures are intended to identify the level of income necessary to meet the basic needs.[9]

From this socio-economic issue we can take a look and another one resulting from it. This is inequality. Contrast of poverty „it is always in a relative term: it refers to the difference between levels of living standards, income etc. across the whole economic distribution. In practice, poverty and inequality often rise and fall together but this need not necessarily be the case. Inequality can be high levels of poverty due to a large difference between the top and the middle of the income spectrum”.[10]

According to International Labor Organization (**ILO**) although the world poverty rate has declined in recent years, there has been an increase in its levels in more developed countries, particularly in Europe. The rise in social inequality also slows down growth and options for a more even distribution of wealth must be sought and well-structured and working institutions that protect worker’s rights are of paramount importance for poverty reduction. Another way to fight poverty is to ensure decent work and people’s lives, to invest more money in the development of the sectors that need it, which in turn will have an impact on living standards in the countries working on the problem.[11]

After summing up all sourced sources of information a solution to this problem in EU, one can point to European integration, which will lead to income equalization (economic convergence), which is essentially a reduction in relative poverty. For this

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6 Businessdictionary http://www.businessdictionary.com/definition/poverty-line.html

7 US Department of Human Services, FAQ Poverty Guidelines and Poverty

8 “Measuring Poverty” https://en.wikipedia.org/wiki/Measuring_poverty

9 U.S. Census Bureau. How the Census Bureau Measures Poverty http://poverty.ucdavis.edu/post/measures-poverty

10 “How is Economic Inequality Defined” https://www.equalitytrust.org.uk

11 “How to Fight Poverty” http://www.investor.bg/sviat/321/a/kak-da-se-prebori-bednostta-217467/

purpose we will look at the period 1995-2013 from an economic point view and through calculations made using sigma convergence we will observe how the relative poverty and income inequality among EU member states have changed.

Methodology and data

"Sigma convergence" represents the disparities in real income levels within the group of countries in a certain moment. It is measured with the standard deviation of income per capita, hence the name.

$$\sigma_t = \sqrt{\frac{\sum_{i=1}^{n}(Y_{it} - \bar{Y}_t)^2}{n-1}}$$

Where:

Y_{it} – income per capita in country i at time t;
$\bar{Y}_t$ – Average income per capita in the selection of countries in time t;
n – Number of countries in the selection;
σ_t – Real (sigma) convergence within the group in time t.

Sigma convergence is fairly simple to use and understand. Low values of $\boldsymbol{\sigma}$ show high levels of convergence and respectively increasing $\boldsymbol{\sigma}$ in time means there is divergence among the studied countries.[12]

A panel data set for all 28 EU member states is constructed, covering the period 1995-2013. The analysis is conducted with annual data for each country, which are retrieved from Eurostat.[13]

Results

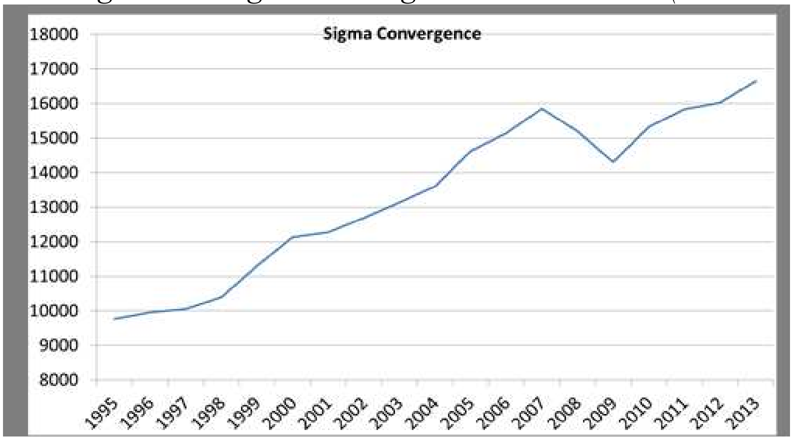
There is widespread agreement that the integration of Europe led to substantial economic benefits for the European Union, as a whole. Lingering worries about the possibility that integration would lead to real divergence between countries or regions of Europe however constitute the main rationale for the large transfers under the EU's Regional Policy.[14] The first figure of the study shows the curve obtained after the calculations made. The results show that there is no sigma convergence between EU member states during the period 1995 – 2013. Such result is explained with the notion that faster growth in low income countries is not sufficient to improve income distribution across countries.

[12] Stefanov, G. Income convergence among the EU member states, The Future of Integration, The Future of the European Union: Jubilee International Scientific Conference, Academic publishing house "Cenov", 2013, pp. 107-114

[13] Eurostat http://ec.europa.eu/eurostat

[14] Martín C., Velázquez F. J, and Funck B., EUROPEAN INTEGRATION AND INCOME CONVERGENCE, Lessons For Central And Eastern European Countries, May 2001, p.01

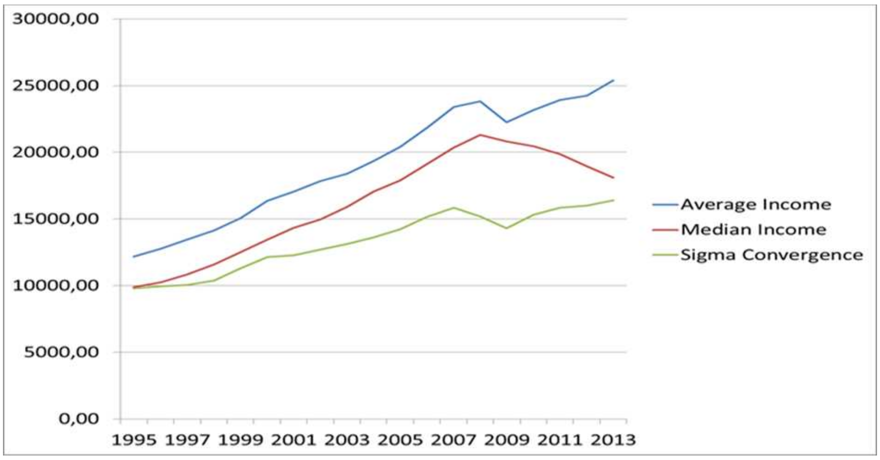
Figure 1. Sigma convergence among EU member states (1995 - 2013)



Apparently the low income countries within EU did not developed such institutions and capabilities yet and therefore convergence is painfully slow or even nonexistent. [15] The graph also illustrates what many other studies have shown that there has been a significant decline in 2008-2010, which coincides with the emergence of the world financial crisis. Only then we can say that "during the recession of 2008 the EU experienced its strongest and its only period of real convergence. This may only mean that the negative effects of the recession were stronger in the high income countries relative to the lower income EU members. This comes to show that convergence is time variant and externally influenced and that convergence may also be a result of decline in income not only of its growth."[16]

The second graph shows the change of situation of Average Income, Median Income and Sigma Convergence. An increase observed, which in turn can be seen to be the result of improving the economic situation influenced by integration, but there is still a disparity between countries, not convergence.

Figure 2.Average Income, Median Income, Sigma Convergence

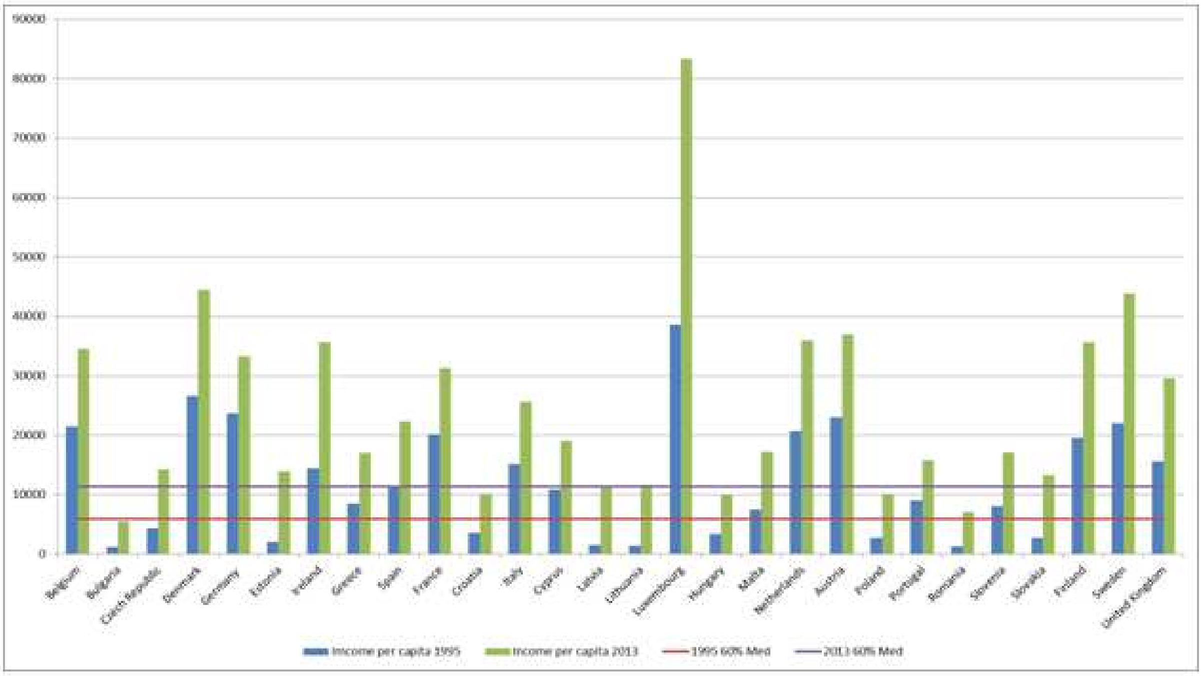


[15] Stefanov, G. Income convergence among the EU member states, The Future of Integration, The Future of the European Union: Jubilee International Scientific Conference, Academic publishing house "Cenov", 2013, pp. 107-114

[16] Stefanov, G. Income convergence among the EU member states, The Future of Integration, The Future of the European Union: Jubilee International Scientific Conference, Academic publishing house "Cenov", 2013, pp. 107-114

The third graph compares the difference between the Income per capita values at the two endpoints of 1995 and 2013 and the difference between the Median Income values also in the two ending years 1995 and 2013.

Figure 3. Income per capita 1995/2013, Median Income 1995/2013



All countries have seen growth, while those in the median income have increased their indicators against first year of the survey, which again shows a positive impact from the integration, because the relative poverty within the Union is decreased, but it is also understood that the level of prosperity of the richer countries again grows faster than the less developed ones, making convergence impossible.

Conclusions

The results of this paper suggest that relative poverty within the Union decreased in the observed period, but income inequality among member-states increased. The findings of the report imply that faster growth in low income countries is not sufficient to improve income distribution across countries. So less developed countries need to be addressed and their better integration into the EU to be achieved in order to reduce relative poverty and increase the incomes of the populations.

References:

1. Why_are_studies_important http://www.answers.com/Q/Why_are_studies_important#slide=1
2. European Union https://en.wikipedia.org/wiki/European_Union
3. Harold W. Watts. "An Economic Definition of Poverty." In Daniel P. Moynihan, On Understanding Poverty. New York: Basic Books, 1968.
4. Orsolya Lelkes / Katrin Gasior • income poverty in the eu http://www.euro.centre.org/data/1295444473_73292.pdf

5. Wealth & Health Inequalities; BBC http://www.bbc.co.uk/scotland/education/ms/wealth/def_of_poverty/definitions.shtml
6. Businessdictionary http://www.businessdictionary.com/definition/poverty-line.html
7. US Department of Human Services, FAQ Poverty Guidelines and Poverty
8. "Measuring Poverty" https://en.wikipedia.org/wiki/Measuring_poverty
9. U.S. Census Bureau. How the Census Bureau Measures Poverty http://poverty.ucdavis.edu/post/measures-poverty
10. "How is Economic Inequality Defined" https://www.equalitytrust.org.uk
11. "How to Fight Poverty" http://www.investor.bg/sviat/321/a/kak-da-se-prebori-bednostta-217467/
12. Stefanov, G. Income convergence among the EU member states, The Future of Integration, The Future of the European Union: Jubilee International Scientific Conference, Academic publishing house "Cenov", 2013, pp. 107-114
13. Martín C., Velázquez F. J, and Funck B., EUROPEAN INTEGRATION AND INCOME CONVERGENCE, Lessons For Central And Eastern European Countries, May 2001, p.01