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Social and Economic Convergence in the EU, 1990-2017[1]

DAN CONSTANTIN OLTEANU[2]

Abstract*:* *The present study represents an empirical analysis of the well-being convergence between EU Member States, using a set of 14 socio-economic indicators, grouped into 4 categories: population health status; financial situation of households; social conditions; education. To these we added the gross domestic product per capita, for comparison between economic and welfare convergence. We also aim to highlight the dynamics of the gap between the Eastern and Western European countries, as well as the evolution of convergence within these two groups. For the last 10 years analyzed, more precisely in the period 2007-2017, the calculation of standard deviation indicates a tendency of convergence within the EU, for 11 of the 14 welfare indicators analyzed. The variation within the group of Eastern European countries is higher than that recorded between the Western European countries, in 9 of 14 indicators. There is also a tendency for convergence between the two groups although, for some indicators (including GDP), the trends corresponding to their averages tend to remain parallel.*

Keywords: *social convergence; economic convergence; welfare*

JEL: *I31,I15, I25, O47*

1. Introduction

The socio-economic convergence is one of the main ideas that have been at the foundation of the European integration process. In general, it is considered that the process of economic convergence generates the one of social convergence, but the experiences of emerging countries in the EU, but also from other countries of the world, have pointed out that the stimulation of the economic growth does not always lead to the improvement of life quality and the elimination of social disparities, both between and within the Member States. This phenomenon is not a sporadic one, but has increased, being amplified by the effects of the last global financial crisis.

As a consequence of the delays in the process of welfare convergence and the perpetuation of social disparities, the confidence of the EU population in the benefits of European integration has gradually diminished, despite the continous Union's efforts to eliminate these disparities (structural funds, etc.). The population is increasingly feeling that the positive, widely publicized, evolution of some macroeconomic indicators such as the domestic product is not proportional to the individual incomes and does not lead to an increase of the quality of life. However, the role of European integration in accelerating socio-economic convergence between Member States cannot be denied. A number of empirical analyzes confirm this, except for the 3-4 years following the global crisis, in which the impact of the crisis, together with the fiscal and other measures that followed, greatly affected the emerging economies trying to catch up with the developed ones.

In recent years, awareness of the difficulties encountered by the convergence process has led to increased attention of European officials, on the social side of European integration. Although social issues have not been lacking so far in the strategy and policies promoted by the European Commission (EC), in recent years, the objective of social convergence has received special

[1] Preliminary findings of this research have been included in the presentation "Empirical Evidence Regarding Social Convergence in the European Union", International Conference ”Economic Scientific Research – Theoretical, Empirical and Practical Approaches” Espera 2019, Bucharest, Romania.

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attention from the European institutions. Thus, an EC study entitled "Reflection Paper on the Social Dimension of Europe" shows that, in recent years, the process of convergence of living conditions has slowed considerably, if not stopped (EC, 2017a, p.8). Also, the ”White Paper on the future of Europe”, which includes a series of scenarios regarding the evolution of the European project until 2025, warns that ”there is a real risk that the generation of today's young adults ends up less well-off than their parents” (EC, 2017b, p.9). As a result, on November 17, 2017, the European Parliament proclaimed the "European Pillar of Social Rights" (EC, 2017c), which sets out a set of (fairly general) principles regarding equal opportunities and access to the labor market, decent working conditions, social protection and social inclusion; but nothing speaks to the inequalities existing within the EU and how to reduce them.

A consistent study on the analysis of social convergence and the role of the European institutions in its achievement, entitled "Building a Social Pillar for European Convergence", was conducted in 2016 by the International Labor Organization. Following an analysis for the period 2000-2015, it is shown that the general trend of the last 15 years indicates a convergence towards high levels of poverty and inequalities at EU level (ILO, 2016, p.2); in terms of employment opportunities, income distribution and social inclusion, the process of convergence at EU level slowed and disparities persist (Ibid., p.7). At the same time, it is shown that the common monetary policy in the euro area has rather amplified the divergence between the Member States (Ibid., pp.31-32). Finally, the study gives some guidelines of social policy designed to support convergence.

Another series of empirical studies finds, on the contrary, the increase of social convergence in the EU. For instance, Eurofound (2018a, p.5) analyzes a number of socio-economic indicators, including GDP per capita, from 2000-2017, and the results show a tendency of convergence (temporarily reversed, during the global crisis) between the member countries, with the exception of income inequality, which has considerably increased. Within the euro area, however, there is a trend of divergence, both between states and at regional level. Also a Eurofound study (2018b, p.5), which studies the convergence of the employment rate, finds the increase of the convergence between the EU Member States, in terms of activity rate, unemployment and employment rate, in the mentioned period, along with an improvement of the EU situation as a whole.

A comparative study between economic and social convergence was conducted by Leitner and Römisch (2015). They conclude that, between 1995-2011, the convergence of GDP and corporate profits in CEE countries was much faster than that of household incomes; the Baltic states, Romania and Bulgaria have the highest degree of income inequality (Ibid., p.20). The authors wonder ”for how long people in the EU will and can accept that their incomes grow below GDP, while corporations’ income grows at high rates” (Ibid., p. 22).

This study aims to provide new empirical evidence in order to clarify the controversies regarding socio-economic convergence / divergence between EU Member States, in recent years. We will use a set of 14 indicators, grouped into 4 categories - health status of the population; financial situation of households; social status; education - to which we added the gross domestic product per capita, for comparison between the economic and welfare convergence. We also aim to highlight the dynamics of the gap between East and West-European countries, as well as the evolution of convergence within these two groups.

2. Methodology

As mentioned, we will use data on EU member countries (including UK), grouped into two categories: (i) West European countries (WE): Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, M. Britain); (ii) Eastern European countries (EE): Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia.

Within the 4 pillars of welfare that we will analyze in this study, we have included the following socio-economic indicators:

1. Health status of population:
   - Life expectancy (ani);
   - Healthy life expectancy – males and females (years);
   - Infant mortality rate (‰);
2. Financial situation of households:
   - Final consumption expenditure of households, per capita (Euro PPS, current prices);
   - Annual net earnings, per household [3] (Euro PPS, current prices);
   - Gross debt-to-income ratio of households (%);
3. Social status:
   - Employment (%);
   - People at risk of poverty or social exclusion (%);
   - Share of housing costs in disposable household income (%);
4. Education:
   - Tertiary enrollment rate (%);
   - Early leavers from education and training (%);
   - Young people neither in employment nor in education and training (%).

To the above indicators, we added the gross domestic product per capita (USD PPP, 2011 prices).

The statistical indicators used in the convergence analysis are::

1. *Amplitude, in absolute values*:

$a = Xmax - Xmin$, expressed in the same units as the variable *X*, where $Xmax/xmin$ = maximum / minimum value of the variable *X*, among the countries considered;

2. *Difference from average, in absolute values or percentage*:

$a' = Xi - \bar{X}$, expressed in the same units as the variable *X*, where $Xi =$ the value of variable *X* for country i; $\bar{X}$ = average of the countries considered;

$a' = (Xi/\bar{X}) * 100$, expressed as a percentage;

3. *Standard deviation* :

$\sigma = \sqrt{\frac{\sum(xi-\bar{x})^2}{n}}$, expressed in the same units as the variable *X*, where $Xi =$ the value of variable *X* for country i; $\bar{X}$ = average of the countries considered, n = number of countries;

4. *Coefficient of variation*:

$v = (\sigma/\bar{X})*100$, expressed as a percentage, can be used for comparisons between indicators.

A decreasing / increasing trend of the indicators described above reveals a convergence / divergence tendency of the considered indicator. For each indicator we will calculate the amplitude and standard deviation, because they are the most relevant in highlighting the dynamics of the convergence process. The coefficient of variation will only be used to compare the size of country variations for the considered social indicators, at the end of period (year 2017). The data series were taken from World Bank Indicators and Eurostat. The time horizon and the number of countries may differ between indicators, depending on the data availability. Also, for some indicators, countries with extreme values have been eliminated; these are Luxembourg and Ireland in the case of GDP per capita, and Luxembourg in the case of consumption per capita and net income per household.

3. Key findings

In tables 1 and 2 we have shown the values of standard deviation (σ) for all the indicators and countries considered, at 3 time points (1997, 2007 and 2017), separately for all EU countries and for EE countries. Comparing, for each indicator, the values recorded at these moments - the last 3 columns - we can show the tendency of convergence / divergence during the two intervals (1997-2007 and 2007-2017), and overall (1997-2017). Comparisons between

[3] For a two-earner married couple, with two children.

indicators are not relevant, because, as mentioned in the methodological section, standard deviation is expressed in the same units as the variable for which it was calculated. For two indicators – final consumption and net earnings of households - we presented the coefficient of variation (v), because data series are expressed in current prices, which does not allow for time comparability of standard deviation. We have outlined the upward trends of σ value within the 3 periods.

In table 1, corresponding to the EU countries as a whole, we notice that for the first interval (1997-2007), 3 indicators show an increasing σ value, so there was a tendency of divergence: life expectancy, households' indebtedness, and tertiary enrollment. For 7 indicators for which data were available, we find decreasing σ, which reveals convergence. Unfortunately, for the rest of 4 indicators, data were not available.

In the second time period (2007-2017), all 3 indicators show a tendency for divergence: healthy life expectancy for males and females (although at the end of the trend is insignificant), along with the share of young people who are neither enrolled in school nor employees. For the entire 20-year period considered (1997-2017), most socio-economic indicators (9 of 10) for which there were complete data, have a tendency of convergence between EU countries. Exception is the households' indebtedness, which shows a spread of values around the average much higher at the end of the period, compared to the initial year 1997, although it decreased in the second half.

Table 1

Standard deviation (σ) – EU countries, 1997-2017

Indicator	unit	1997	2007	2017	1997-2007	2007-2017	1997-2017
Life expectancy	years	3,1	3,3	2,7	↗	↘	↘
Healthy life years - females	years	-	4,6	5,4	-	↗	-
Healthy life years - males	years	-	5,0	5,1	-	↗	-
Infant mortality rate	‰	4,2	2,2	1,3	↘	↘	↘
Final consumption expenditure of households, per capita*	%	36,3	26,8	20,4	↘	↘	↘
Annual net earnings, per household*	%	44,4**	41,0	31,4	↘	↘	↘
Gross debt-to-income ratio of households	%	44,6	59,6	54,3	↗	↘	↗
Employment	%	5,9	5,5	4,3	↘	↘	↘
People at risk of poverty or social exclusion	%	-	10,1	6,5	-	↘	-
Share of housing costs in disposable household income	%	-	6,2	6,1	-	↘	-
School enrollment, tertiary	%	13,6	13,9	12,3	↗	↘	↘
Early leavers from education and training	%	8,1**	7,1	3,7	↘	↘	↘
Young people neither in employment nor in education and training	%	5,8**	3,6	4,5	↘	↗	↘
GDP, per capita	2011 USD ppp	9574	9414	8439	↘	↘	↘

* Coefficient of variation was used instead of standard deviation; ** year 2000.
Notă: σ ↗ ⇔ divergence tendency; σ ↘ ⇔ convergence tendency.
Source: own calculations, based on Eurostat and World Bank Indicators.

In the second table, for the EE countries, the situation is slightly different from that of the EU. In the first interval there are two new indicators for which σ is increasing - GDP per capita and early school leaving – along with two indicators also found in the preceding table: indebtedness and tertiary enrollment. In the second period, 2007-2017, we find a new indicator with divergence - the share of housing costs – besides young people neither in employment nor in education, which is also found in table 1. For the remaining 12 indicators, the downward trend reveals convergence.

During the whole period 1997-2017, at the EE level, in addition to the degree of indebtedness – for which σ is almost tripling -, two other indicators show a tendency of divergence: enrollment in

tertiary education and early school leaving; therefore, for 3 of the 10 indicators, we find divergence. The next sections will bring a more in-depth analysis of σ evolution for each indicator, and also from a comparative WE - EE perspective.

Table 2

Standard deviation (σ) – EE countries, 1997-2017

Indicator	unit	1997	2007	2017	1997-2007	2007-2017	1997-2017
Life expectancy	years	3,1	3,1	2,6	⟶	↘	↘
Healthy life years - females	years	-	5,7	5,4	-	↘	-
Healthy life years - males	years	-	5,9	5,1	↘	↘	-
Infant mortality rate	‰	4,6	2,5	1,6	↘	↘	↘
Final consumption expenditure of households, per capita*	%	37,2	27,0	15,5	↘	↘	↘
Annual net earnings, per household*	%	48,4**	40,3	21,2	↘	↘	↘
Gross debt-to-income ratio of households	%	5,0	17,4	13,7	↗	↘	↗
Employment	%	5,5	4,4	3,6	↘	↘	↘
People at risk of poverty or social exclusion	%	-	12,1	7,9	-	↘	-
Share of housing costs in disposable household income	%	-	6,4	7,7	-	↗	-
School enrollment, tertiary	%	8,5	15,5	13,1	↗	↘	↗
Early leavers from education and trainin	%	2,9**	4,7	4,0	↗	↘	↗
Young people neither in employment nor in education and training	%	4,1**	3,0	3,9	↘	↗	↘
GDP, per capita	2011 USD ppp	5181	5645	4683	↗	↘	↘

* Coefficient of variation was used instead of standard deviation; ** year 2000.
Notă: σ ↗ ⇔ divergence tendency; σ ↘ ⇔ convergence tendency.
Source: own calculations, based on Eurostat and World Bank Indicators.

Table 3 and chart 1 include the coefficient of variation (v) for the year 2017, which is expressed as a percentage of the average value and thus allows comparisons between indicators. Results are separated into 3 samples, for comparison: total EU, WE and EE countries. We have outlined the maximum values between groups of the coefficient v. In general, the EE countries have higher values of the variation around the average (11 of 14 indicators); the exceptions are employment, indebtedness of households and young people neither in employment nor in education. This relatively high dispersion around the average shows that some countries tend to approach WEs, while others fail to keep pace and lag behind.

In order to facilitate comparisons between indicators, chart 1 includes the results from table 3. It is observed that there are very large differences between the v values of the considered indicators. The highest values, over 40%, are found at: indebtedness of households (at EU level), early school leaving (EU and EE), young people neither in employment nor in education (WE), infant mortality (EE). Also, share of housing costs at the EE level shows a variation close to the mentioned value. At the opposite end, life expectancy (all groups), healthy life expectancy (all groups), employment (all groups) and final consumption (only WE) show a small variation, below 10%.

The fact that, for 4 indicators in table 3, including GDP per capita, variation at the EU level is higher than at the WE and EE groups may indicate a tendency of polarization, more precisely a tendency of convergence towards each average of the two groups, while the averages remain distant or even move away from each other. The same thing is verified at the v average (excluding GDP) from the last line of table 3. Also, we notice that, for both groups, the v average of social indicators is higher than the v value of GDP, by 3% in the case WE and 6% for EE. This could induce the hypothesis that economic convergence does not necessarily lead to social convergence.

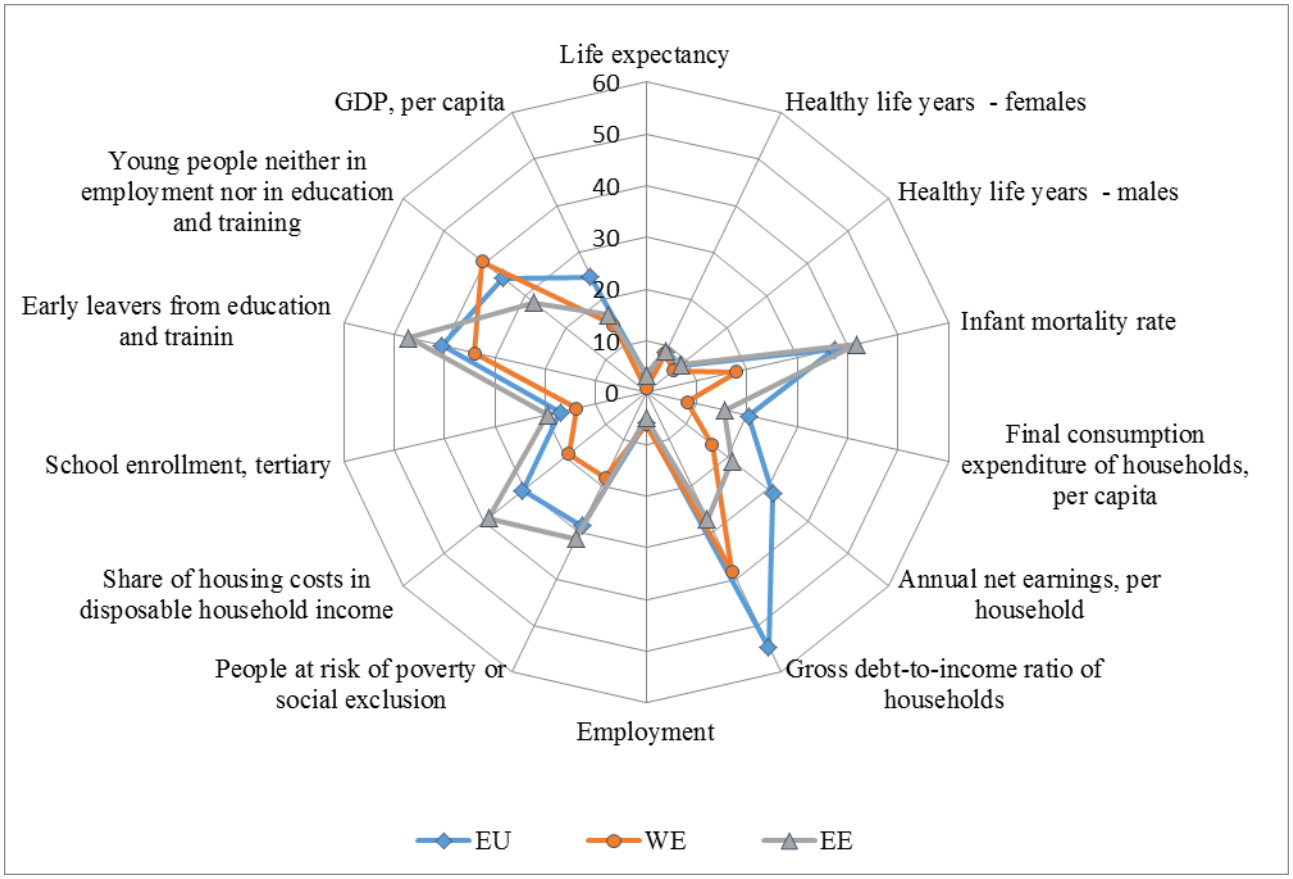
Table 3

Coefficient of variation (v), 2017 (%)

Indicator	EU	WE	EE
Life expectancy	3,4	0,8	3,4
Healthy life years - females	8,7	8,3	8,9
Healthy life years - males	8,3	6,8	8,6
Infant mortality rate	37,4	17,9	41,8
Final consumption expenditure of households, per capita*	20,4	8,1	15,5
Annual net earnings, per household*	31,4	16,4	21,2
Gross debt-to-income ratio of households	54,7	38,4	27,2
Employment	5,8	6,2	5,0
People at risk of poverty or social exclusion	28,6	18,3	31,4
Share of housing costs in disposable household income	30,5	19,1	39,0
School enrollment, tertiary	17,0	13,8	19,6
Early leavers from education and trainin	40,5	34,0	47,1
Young people neither in employment nor in education and training	35,4	40,6	27,9
GDP, per capita	24,7	14,5	16,7
Average (excluding GDP)	24,8	17,6	22,8

Source: own calculations, based on Eurostat and World Bank Indicators.

Chart 1: Coefficient of variation (v), 2017 (%)



Source: own calculations, based on Eurostat and World Bank Indicators.

4. Detailed analysis of welfare indicators

4.1. Health status

Within this welfare pillar we included life expectancy (years), infant mortality (‰), and healthy life expectancy (years) - separately for males and females. First, in figure 1a-d (see Annex) we have presented the situation of life expectancy, more precisely the evolution in absolute figures, the differences from the EU average, together with the amplitude and the standard deviation, for 1990-2017 period. Fig.1a shows that the average of EE countries, well below that of the WEs, gets slightly closer to the EU average towards the end of the period. The spread within the EE group is much higher compared to that of the WEs, as shown in fig.1b-c. In 2017, the amplitude reached 8 years in the EEs, compared to only 2 years in the WEs. However, after 2007, the standard deviation in the EEs begins to decrease and, as a result, the one in the EU as a whole. Romania, located in 2017 at a distance of almost 5 years from the EU average, approached the latter from 1996 to 2007, after which the convergence process stopped.

Regarding infant mortality (fig. 2a-d), the convergence process is very evident, both within the EE group and between EE and EU averages. Romania, the country with the highest infant mortality in the EE, shows a spectacular decrease of the indicator, which makes the difference with the EU to drop from 16.5 permille points (p.p.) in 1990, to 3.2 p.p. in 2017.

Fig. 3a-d and fig. 4a-d show the convergence trends of healthy life expectancy for females, and males, respectively. After a substantial convergence within the all groups during 2005-2009, it is observed that the tendency for 2012-2017 is rather divergent. The most significant divergence is recorded by the WEs; the deviation from their average even exceed (2016, females - fig.3c) that of the EEs. Romania strongly reduced its healthy life expectancy in the period 2007-2011, after which the situation improved, and gradually reduced the difference from the EE and EU averages.

4.2. Financial situation

Within this pillar of well-being we included 3 indicators: per capita consumption of households, net income per household, and share of debt in net income of households (fig.5a-d - fig.7a-d in the Annex). The first two indicators are expressed in current prices, which do not allow time comparability of standard deviation, amplitude and differences from the EU average; for this reason we used, instead, the coefficient of variation and the percentage in the EU average. For household consumption and income (figs. 5a-d and 6a-d), the coefficient of variation decreases significantly both within the EE group and at the EU level as a whole. However, in absolute numbers, the EE average is not visibly approaching the EU, although, as a percentage, many countries, including Romania, have a growing share in the EU average. Romania gets closer to the EU average in terms of consumption in absolute figures (fig.5a), but much less in the case of income (fig.6a).

In the case of households' debt (fig.7a-d), the situation is different compared to the previous indicators. In the WEs, both the average of the absolute values and the standard deviation are much higher than in the EEs, which was to be expected given the different level of financial intermediation between the two groups. Beginning with 2010, after a previous sustained growth, the absolute values and the standard deviations slightly decrease, which shows a resumption of the convergence process within the groups; however, the EE average is kept at a distance from the EU average.

4.3. Social status

We included here 3 indicators: employment (% in the population of 15-64 years), the risk of poverty and social exclusion (%) and the share of housing costs in disposable income of households (%). The results are presented in fig.8-10 of the Annex. Employment has a tendency of convergence, especially during 2008-2017, at EEs and also at EU level. The EEs group average is

approaching the EU towards the end of the period, excepting Romania which maintains the distance from the EU average and, in 2017, becomes the penultimate country in the EE group, in terms of employment (fig.8d).

A situation similar to that of employment is encountered in the case of poverty and social exclusion (fig. 9a-d), with a tendency of convergence, in the second half of the analyzed period, both within the groups and among them. The difference is that the EEs dispersion is higher compared to that of the EU as a whole. Romania, which is the second country in the EE group and implicitly in the EU, considerably reduces the difference from the EU average, more precisely from 22.5 p.p. in 2007, to 10.3 p.p. in 2018 (fig. 9d).

The share of housing costs in disposable income of households (fig. 10a-d) is an indicator for which the 3 averages are very close and have an almost constant evolution (they fall in the range of 17-21%), with slight tendency to decrease in the EEs, starting with 2014. It is worth noting that the average of the WEs is higher than that of the EEs. The standard deviations are also low; what draws attention here is the EE group, which after a period of decline from 2005 to 2011, starting with 2012 shows a slight increase, which disrupts the EU's convergence trend as a whole. Romania has values above the EU average, but they significantly decrease, so the difference from EU drop from 8.1 p.p. in 2008 at 1.5 p.p. in 2018 (fig. 10d).

4.4. Education

We have included here the tertiary enrollment rate (%), the rate of early school leaving (18-24 years, %) and the share of young people neither in employment nor in education and training (15-29 years, %). The first indicator - university enrollment (fig.11a-d) - shows a sustained rise in absolute figures in both WE and EE, until 2006. However, the divergence within the EU and, in particular, within the EEs is also growing, which reveals very different paths within the latter group. After 2006, a convergence trend is taken shape within the all 3 groups, accompanied by a stagnation in absolute figures. Romania has a spectacular evolution of convergence with the EU average; however, the subsequent strong drop makes the difference from the EU average to decrease from +3.5 p.p. in 2009 to -20,3 p.p. in 2016 (fig. 11d).

Early school leaving is an indicator with a downward trend until 2014, in both WE and EE groups. The dispersion around the average is much higher in the WEs, but falls steadily until 2015, even below the EEs. Romania has a positive evolution (reduction of early school leaving) until 2008 and is approaching the EU average, after which the trend becomes horizontal. On the other hand, the EU trend is decreasing, so the difference between Romania and the EU average increases from 3 p.p. in 2008 at 7.4 p.p. in 2018 (fig. 12d).

The last indicator is the percentage of young people neither in employment nor in education and training. Its evolution is an oscillating one for all the groups: a decrease until 2008, followed by an increase until 2013 and a slight reduction up to 2018. Also an oscillating evolution has the standard deviation, completed with a decrease between 2013-2018, which indicates a convergence tendency. Romania, after considerably closing the gap with the EU average in 2008 (at 1.2 p.p.), starts to move away, reaching a difference of 5.0 p.p. in 2018.

5. Final remarks

Summarizing the results of this study, we may conclude that convergence/divergence tendency has had various paths across indicators and time intervals, during the last 10 years. However, the changes of standard deviation between 2007 and 2017 shows a convergence tendency between the EU member states, for 11 of the 14 welfare indicators analyzed. The exceptions are: healthy life expectations for both women and men, and the share of young people neither in employment nor in education and training. In 2017, the indicators with the highest variation (over 40%) around the average, between EU countries, were the households' indebtedness and the early school leaving. On the other hand, life expectancy, healthy life expectancy, employment and final

consumption (WE group only) show the lowest variation, below 10%. This high convergence degree of the latter indicators does not necessarily mean a positive evolution; this is the case of healthy life expectancy, whose average values have been capped since 2007.

Analyzing the figures regarding the evolution of GDP per capita, but also of other indicators such as life expectancy, final consumption, incomes and indebtedness of households, we observe that the trends corresponding to the WE and EE averages tend to remain parallel during the 10 years analyzed. At the same time, for these indicators, the dispersion around the EU average, measured by the standard deviation or the coefficient of variation, tends to evolve above the WEs and EEs trends. These aspects indicate a tendency of polarization, more precisely there is a convergence within the two groups, but not between them. We have exemplified this phenomenon by analyzing GDP per capita, where polarization is the most visible; the standard deviation of the EU is well above that of the WE and EE groups (fig.14c), and the range of values for the two groups are considerably different (fig.14d-e). In the last 10 years, only 3 WE countries - Italy, Spain and Portugal - descend on the level of EE countries; without these, the two ranges would not intersect. However, given that many EE countries are approaching the EU average, we may say that this phenomenon is only temporary.

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Annex

Life expectancy (years), 1990-2017

Fig. 1a

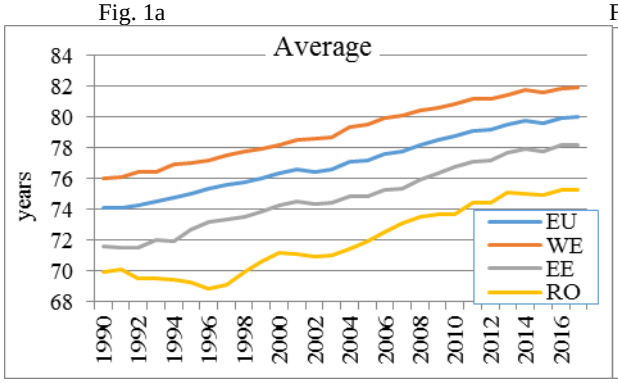


Fig. 1b

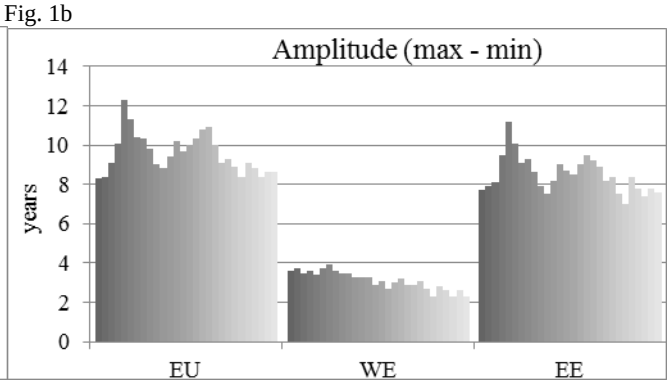


Fig. 1c

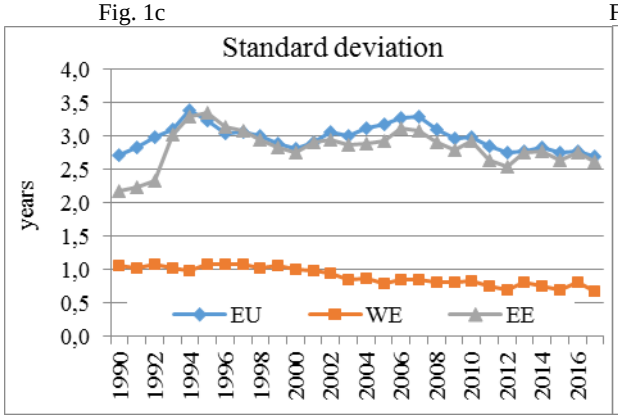
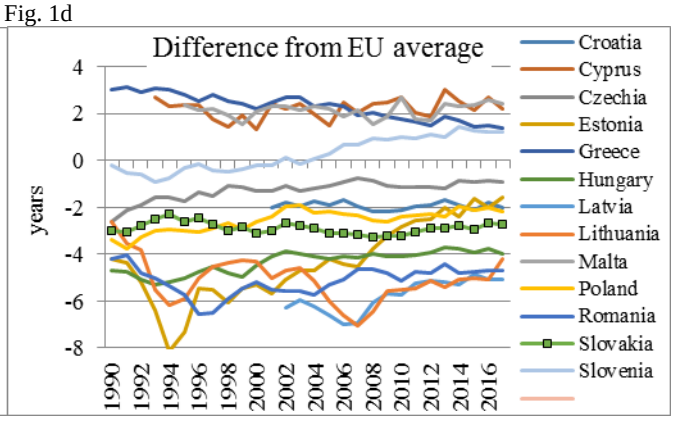


Fig. 1d



Source: Eurostat and own calculations.

Infant mortality rate (per 1,000 live births of children under one year of age), 1990-2017

Fig. 2a

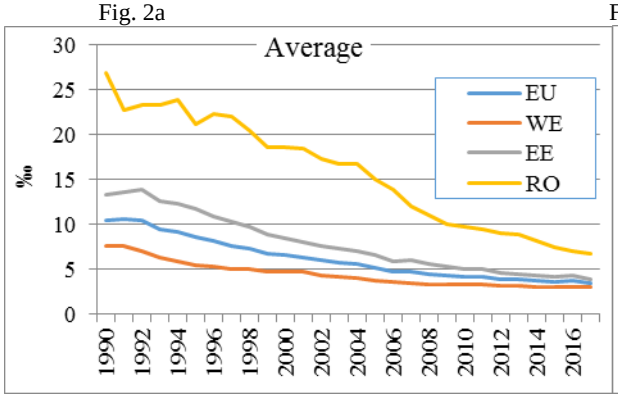


Fig. 2b

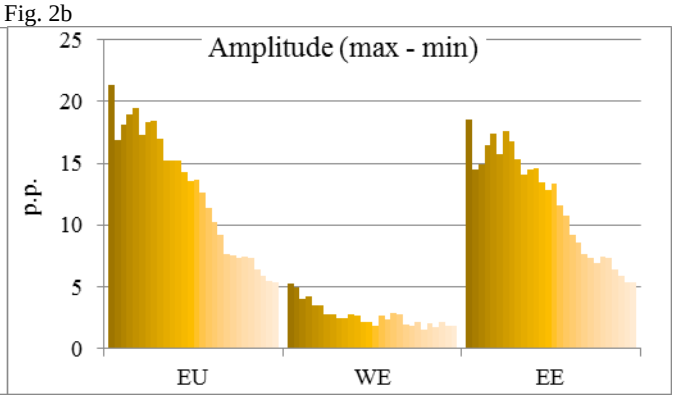


Fig. 2c

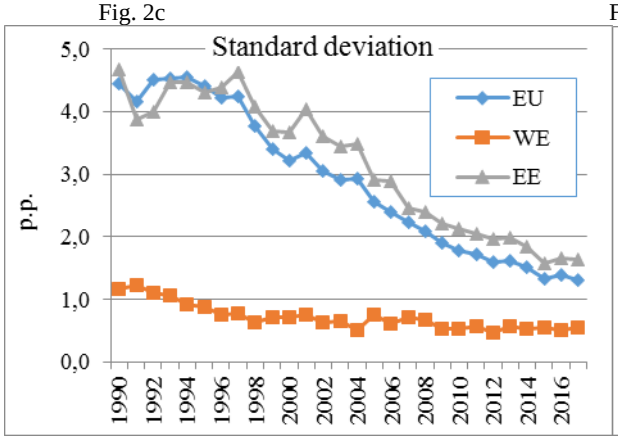
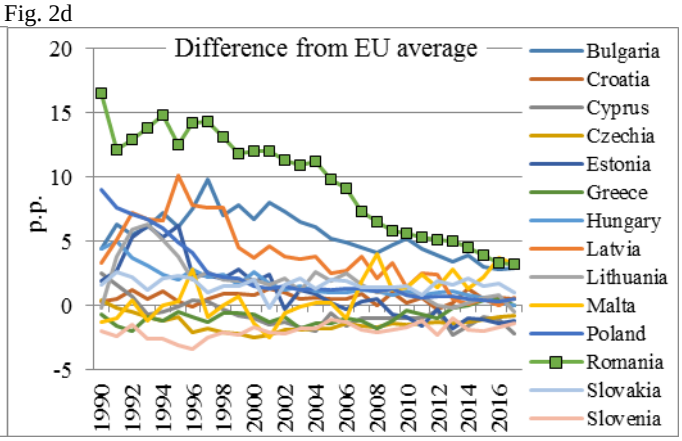


Fig. 2d



Source: Eurostat and own calculations.

Healthy life years, females (years), 2005-2017

Fig. 3a

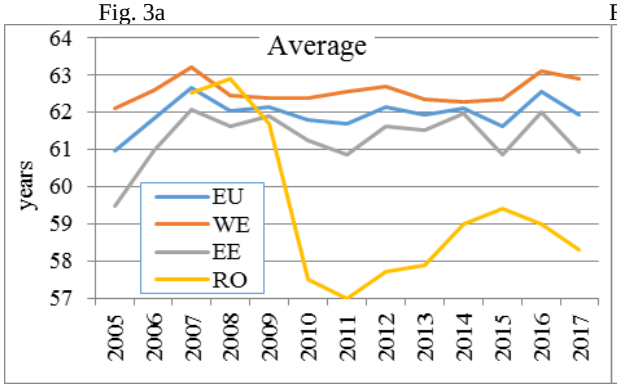


Fig. 3b

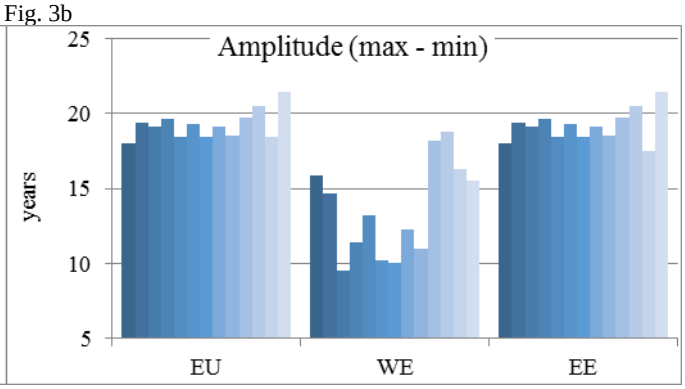


Fig 3c

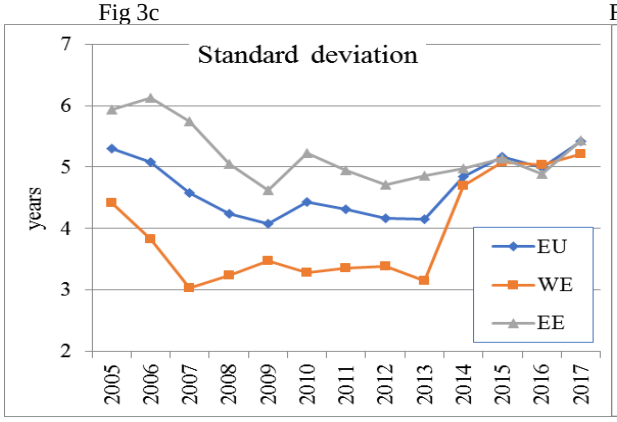
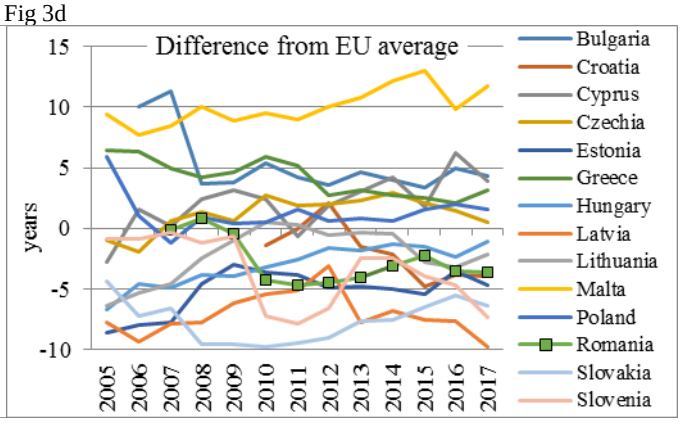


Fig 3d



Source: Eurostat and own calculations.

Healthy life years, males (years), 2005-2017

Fig. 4a

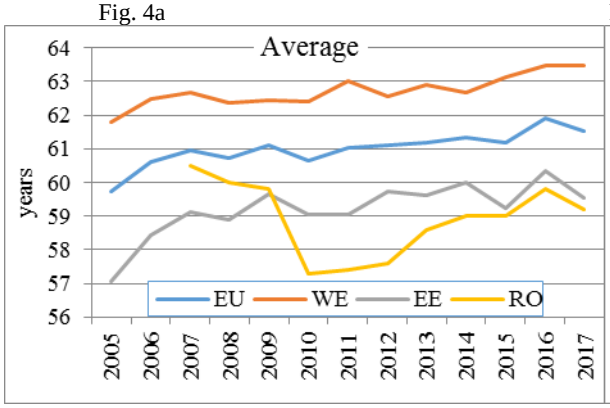


Fig. 4b

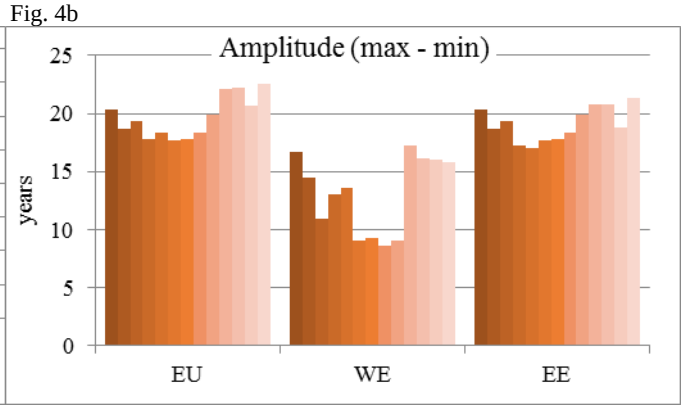


Fig. 4c

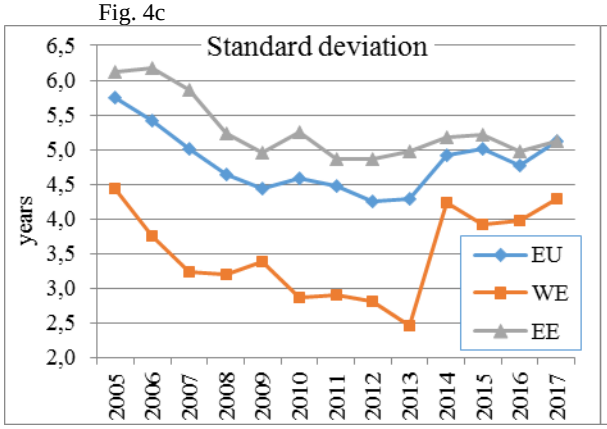
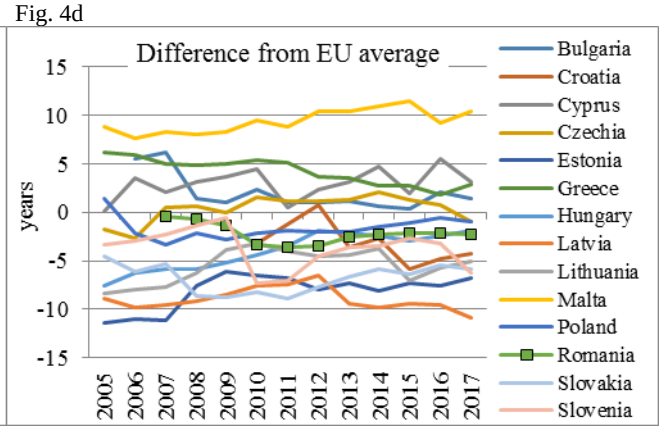


Fig. 4d



Source: Eurostat and own calculations.

Final consumption expenditure of households (euro PPS per capita, current prices), 1995-2018

Fig. 5a

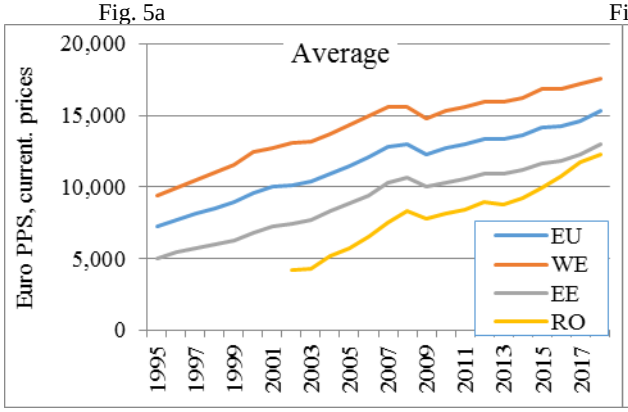


Fig. 5b

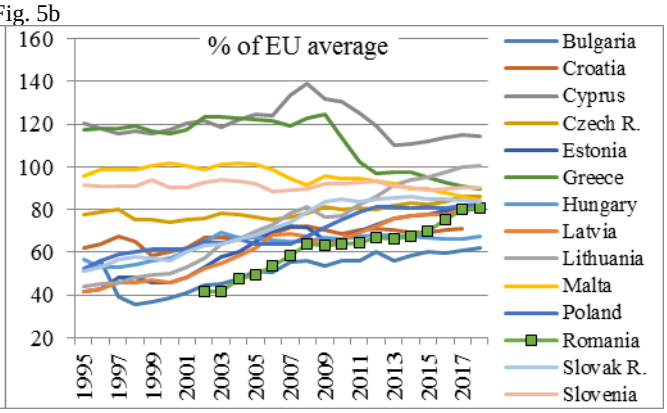
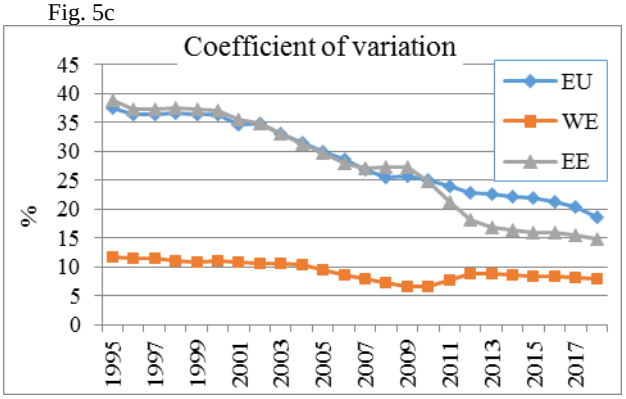


Fig. 5c



Source: Eurostat and own calculations.

Annual net earnings, per household, two-earner married couple (euro PPS, current prices), 2000-2018

Fig. 6a

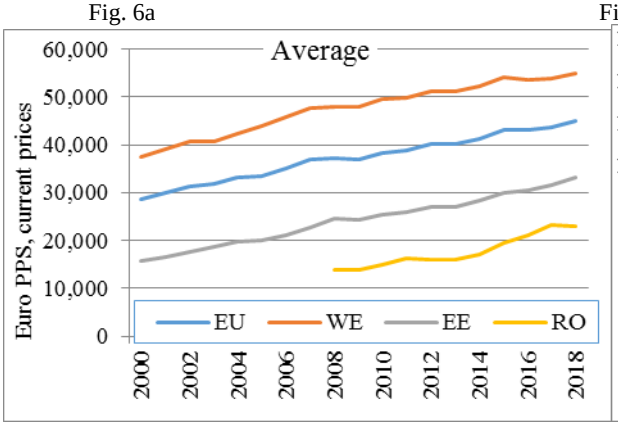


Fig. 6b

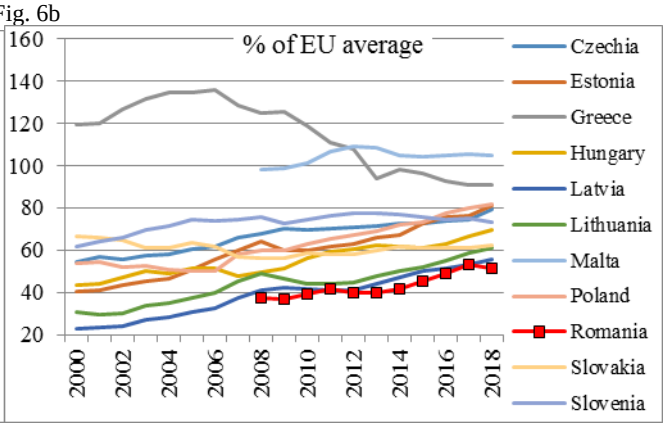
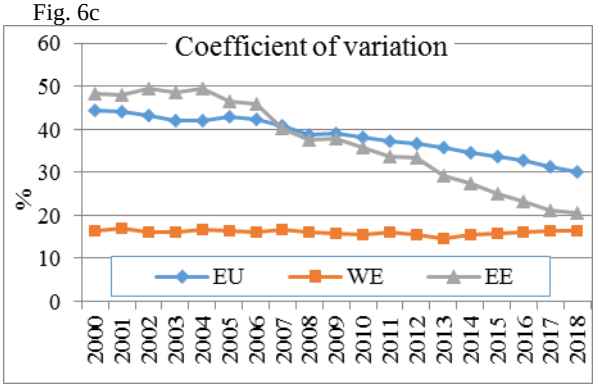


Fig. 6c



Source: Eurostat and own calculations.

Gross debt-to-income ratio of households (%), 1995-2017

Fig. 7a

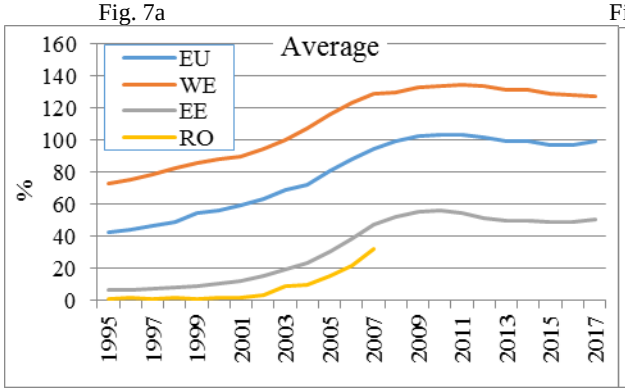


Fig. 7b

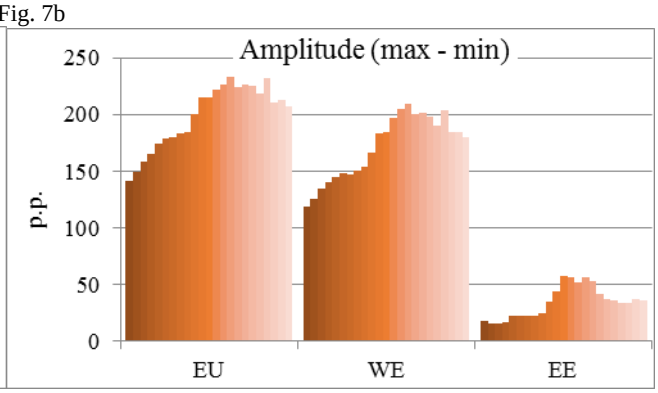


Fig. 7c

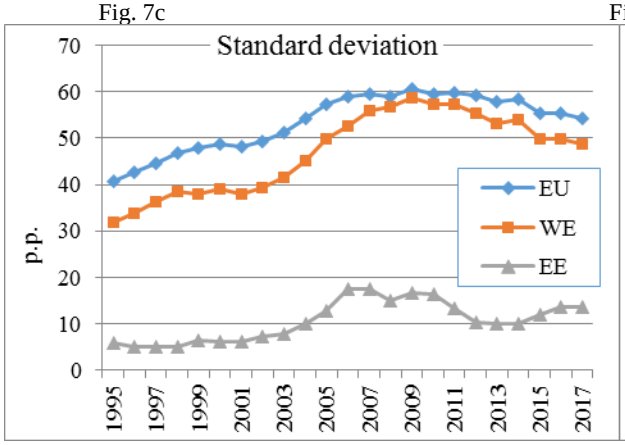
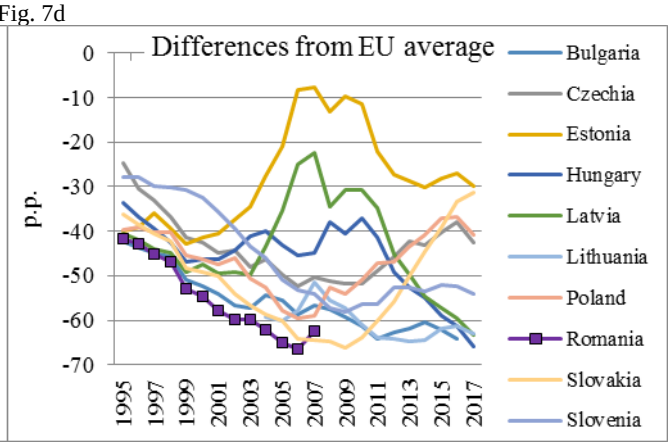


Fig. 7d



Source: Eurostat and own calculations.

Employment (15-64 years, % of total population)

Fig. 8a

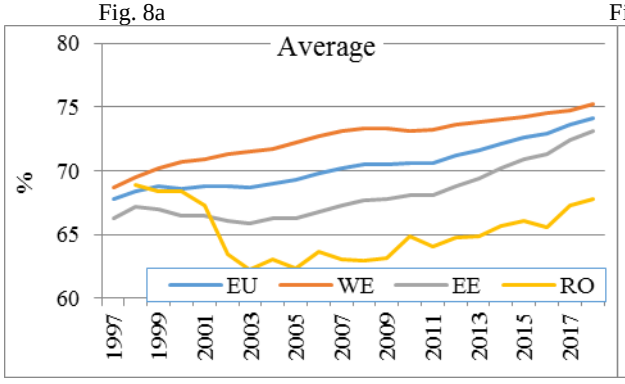


Fig. 8b

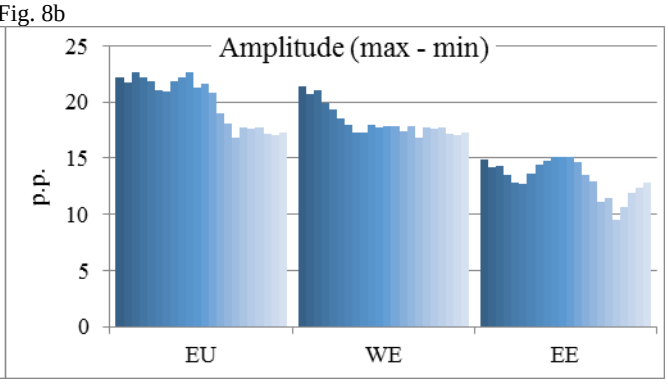


Fig. 8c

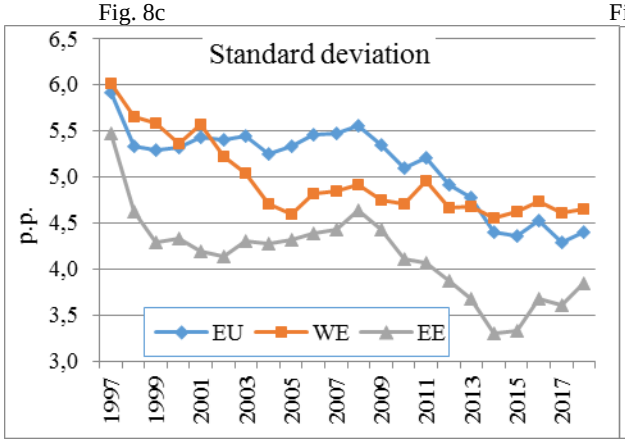
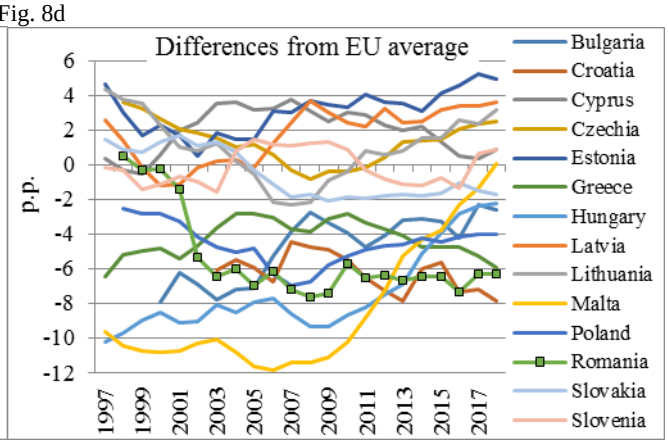


Fig. 8d



Source: Eurostat and own calculations.

People at risk of poverty or social exclusion (% of population)

Fig. 9a

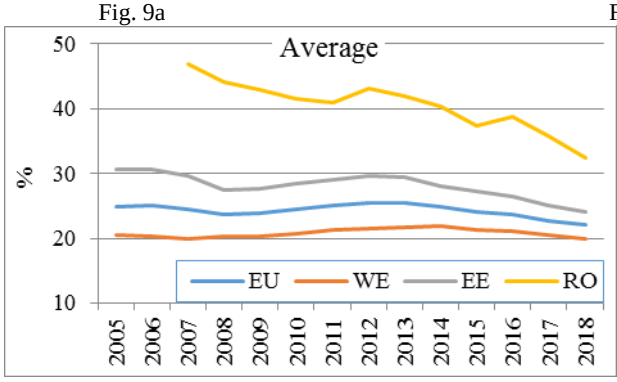


Fig. 9b

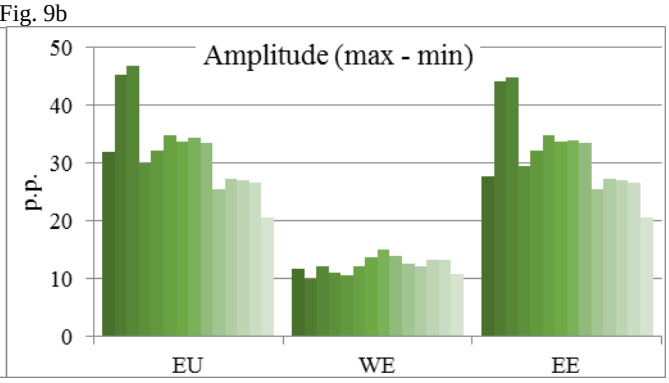


Fig. 9c

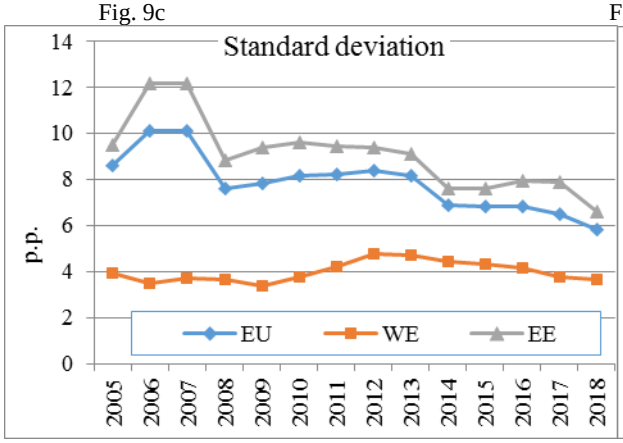
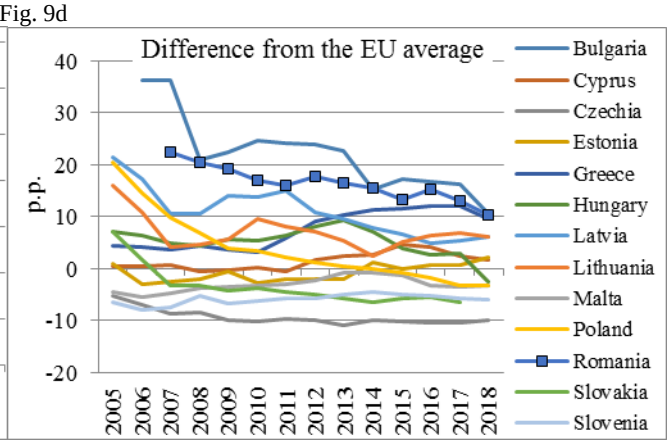


Fig. 9d



Source: Eurostat and own calculations.

Share of housing costs in disposable household income (%)

Fig. 10a

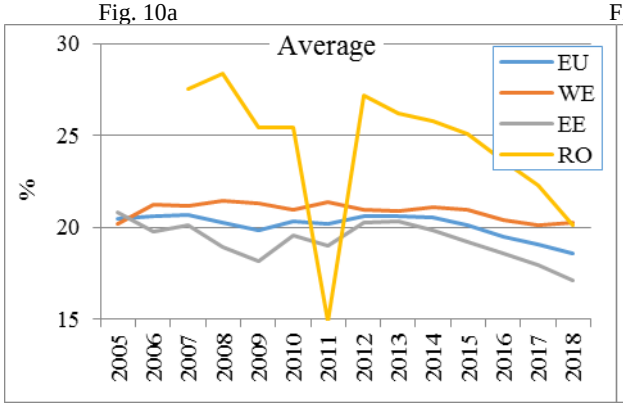


Fig. 10b

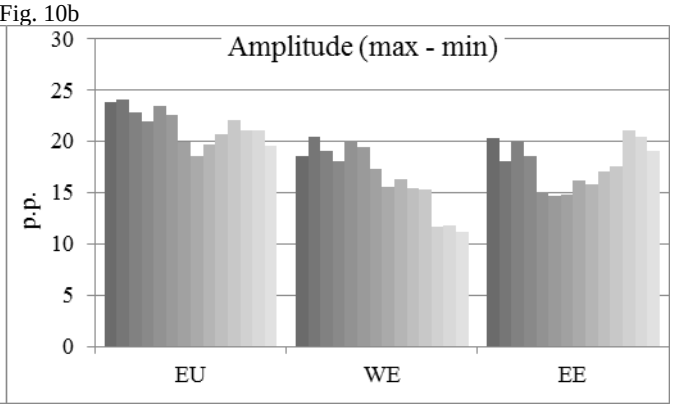


Fig. 10c

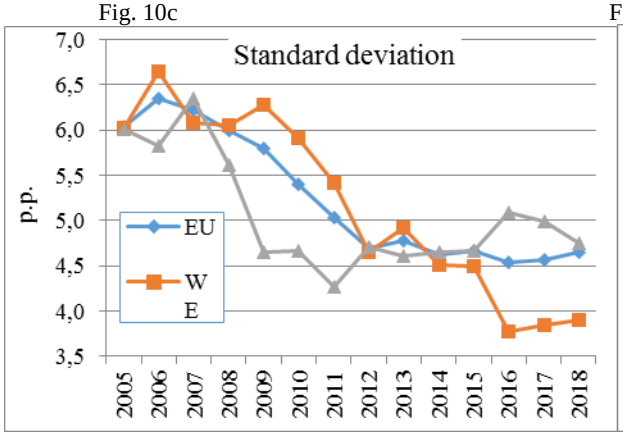
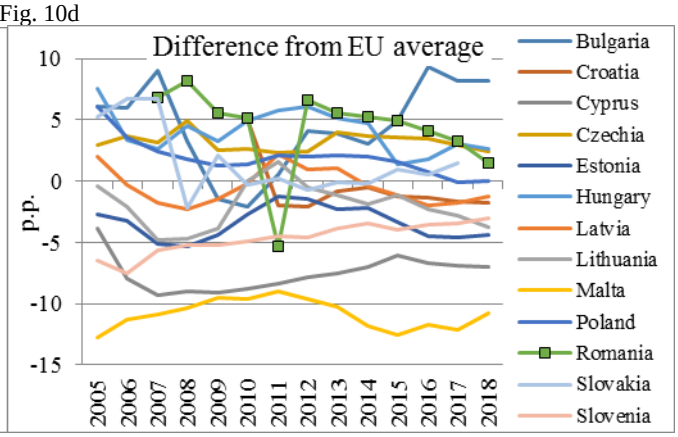


Fig. 10d



Source: Eurostat and own calculations.

School enrollment, tertiary (%)

Fig 11a

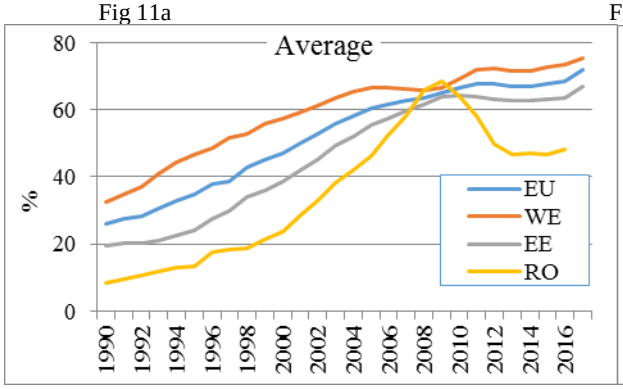


Fig 11b

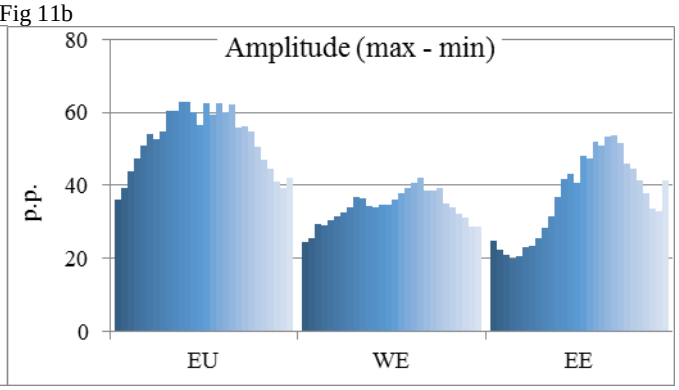


Fig. 11c

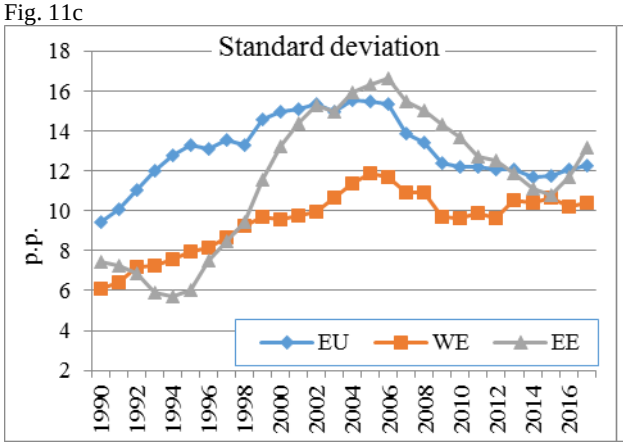
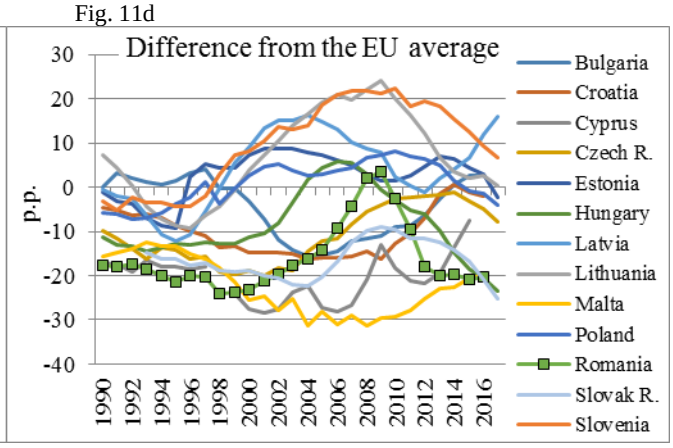


Fig. 11d



Source: World Bank Indicators and own calculations.

Early leavers from education (18-24 years, %)

Fig. 12a

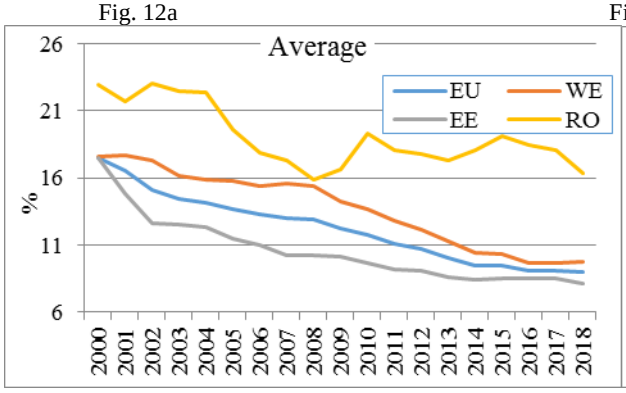


Fig. 12b

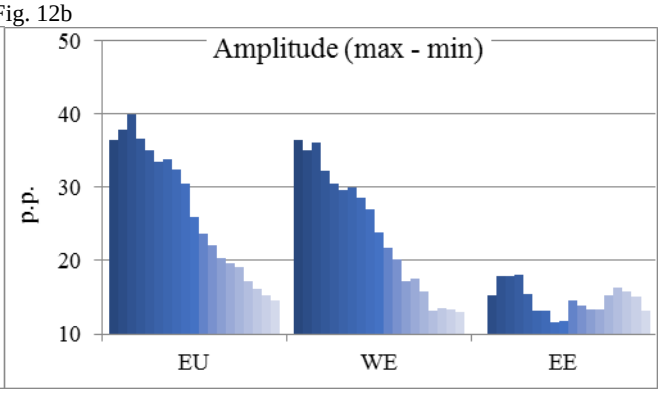


Fig. 12c

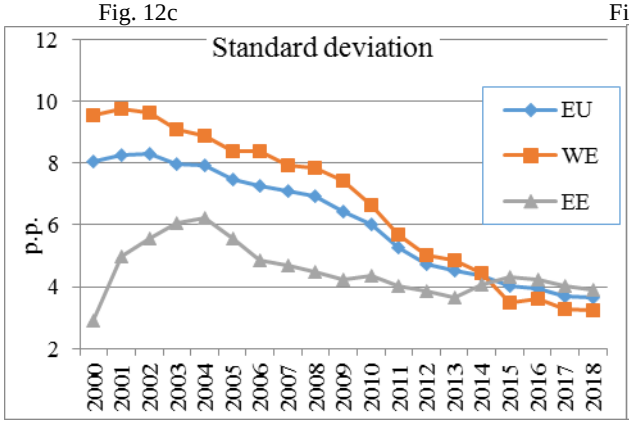
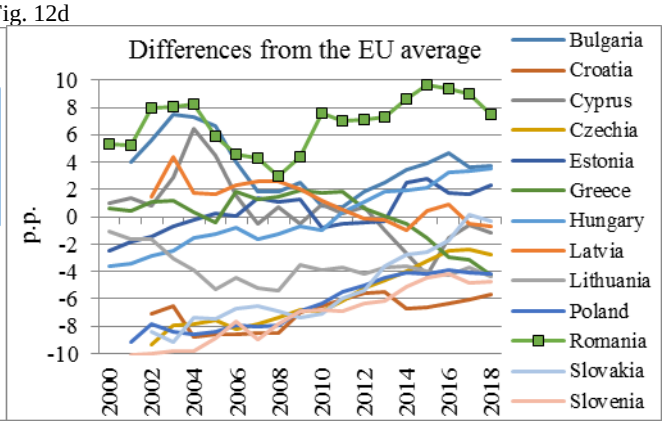


Fig. 12d



Source: Eurostat and own calculations.

Young people neither in employment nor in education and training (15-29 years, %)

Fig. 13a

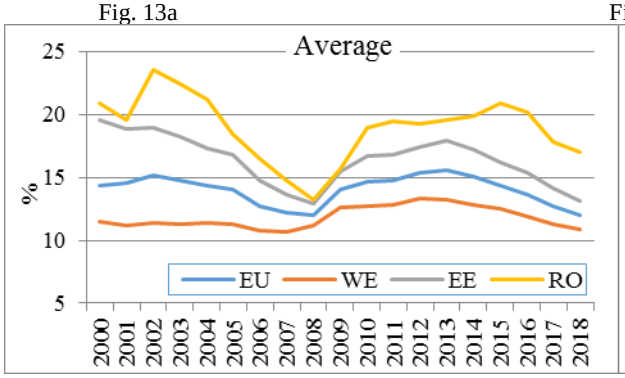


Fig. 13b

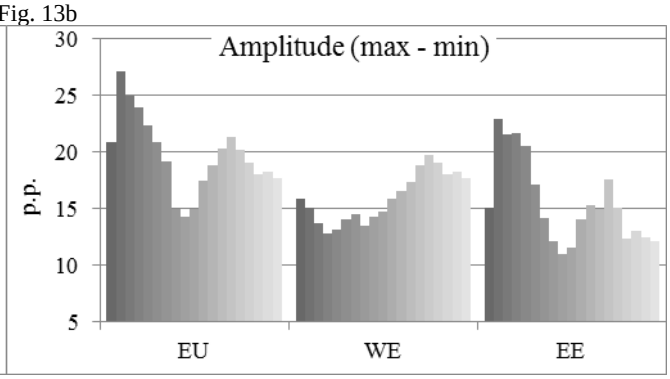


Fig. 13c

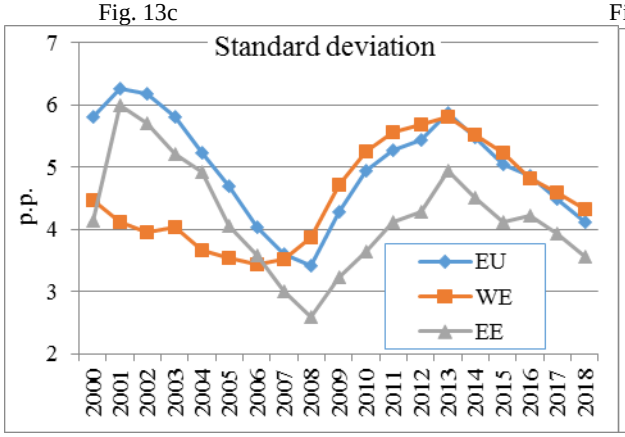
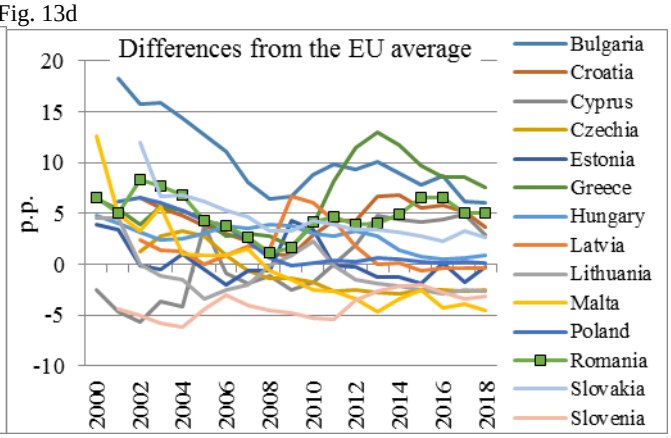


Fig. 13d



Source: Eurostat and own calculations.

GDP per capita (USD PPP, 2011 prices)

Fig. 14a

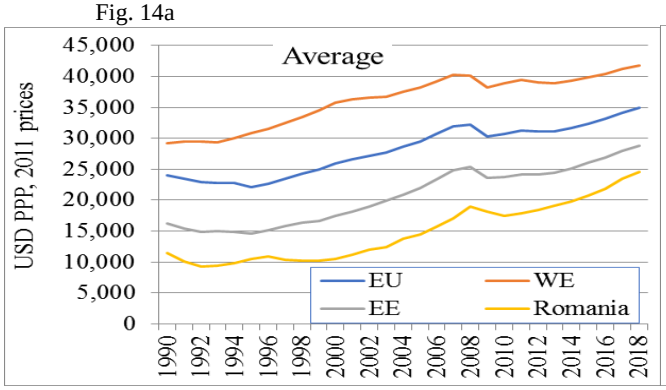


Fig. 14b

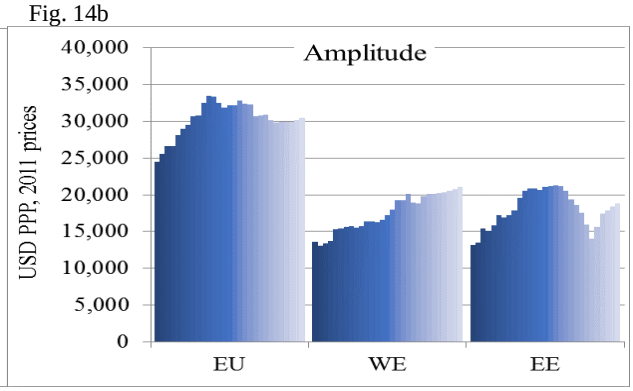
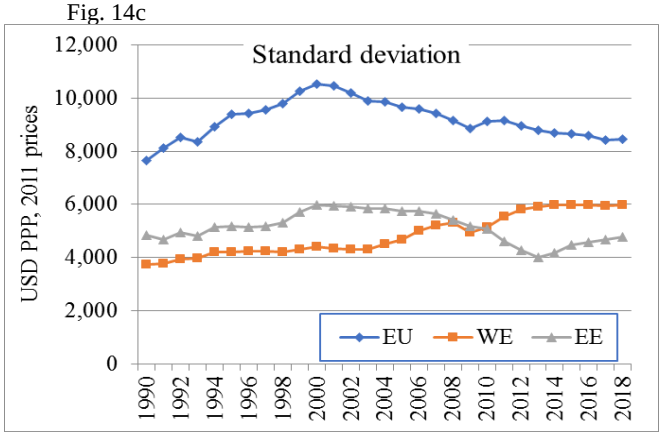


Fig. 14c



Source: World Bank Indicators and own calculations.

Fig. 14d

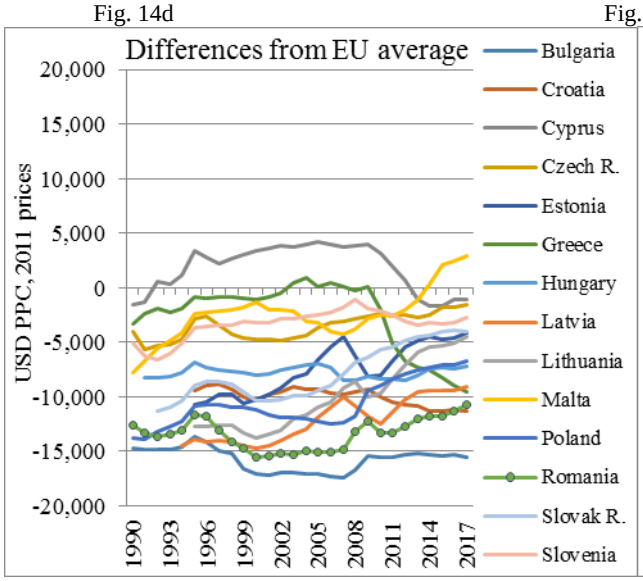
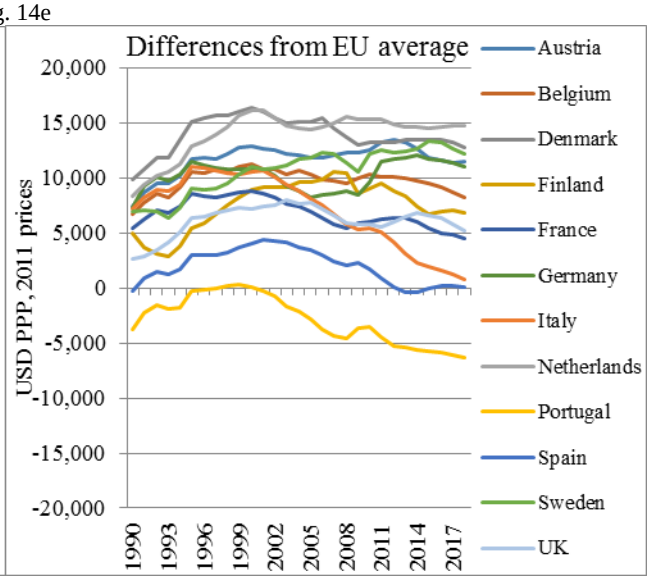


Fig. 14e



Source: World Bank Indicators and own calculations.