

Miscellaneous**Europe 2020 Strategy's Viability under This More Volatile Economic World****Romeo-Victor Ionescu¹**

Abstract: The global crisis accentuated the competition between the greatest world economic actors. One of them, the EU28, tried to find, as solution to support its economic growth, the Cohesion Policy. The paper is focused on the analysis of the results of the Cohesion Policy and the perspectives of the new strategy Europe 2020. In order to do these, the paper uses the latest official statistic data and divides the analysis into three periods: until 2012, during 2012-2014 and during 2015-2020. The analysis is based on three elements (a comparative trend analysis, followed by a cluster analysis and a forecast using SPSS19 software) and takes into considerations four important macroeconomic indicators. The main conclusion of the paper is that the objectives of the Europe 2020 strategy will be not achieved and the socio-economic disparities will increase across the EU in 2020. All conclusions of the analysis are supported by pertinent diagrams and statistic tables.

Keywords: crisis' challenges; regional clusters; economic recovery; economic disparities; economic forecast.

JEL Classification: R11; R12; F62; F63

1. Introduction

The EU28 is close to a new financial perspective which will support the new Europe 2020 Strategy focused on clever sustainable development able to decrease the socio-economic disparities between the Member States and to offer a model of successful regional integrative organization.

There are a lot of economic studies regarding the future of the EU. Some of them talk about the fragile improvement in financial market conditions (Baker S. R. et al., 2013). Other research is more pessimistic and considers that a strong rebound of the domestic demand was not to be expected (Jordà O. et al., 2012).

More specialists focused on the idea that the financial crisis-induced fall in credit supply tend to amplify investment downturns, in particular in vulnerable countries (Buca A., Vermeulen P., 2012).

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The latest approaches talk about a new global crisis connected to the weak of the international bank regulations. After Lehman Brothers' failure in 2008, the main global economic actors were defensive and destroyed the global coordination.

In order to pass this impasse, the EU leaders negotiate the union bank details and the American congressmen continue the reform of the financial sector. Maybe a very important problem is that to restore confidence in the banking sector.

Each main global economic actor tried to find national solution to face the crisis. UK, for example, applied a disastrous policy of selling the gold reserves of the country at 256-296 dollars an ounce. Meanwhile, gold prices climbed to 1205 dollars an ounce.

USA adopted a new law aimed at the financial sector (Dodd-Frank law), but EU continued to manage a permissive legislation in this sector.

On the other hand, China is closed to decrease. The total loans in China increased from 9000 billion dollars in 2008 to 23000 billion dollars in 2013. Moreover, the dependence on short-term financing on the capital markets reminiscent of the earlier collapse of U.S. bank Lehman Brothers. All these above elements talk about the risk of a new global crisis.

As an intermediate conclusion, the global crisis is far away from its end and the economic recovery process, including EU28, is very difficult. Under this less optimistic approach, the launch of the Europe 2020 Strategy tried to represent a step further on the integration road.

This paper tries to sustain the idea of greater socio-economic disparities between the Member States which contrasts with the European cohesion objective. Moreover, the analysis in this paper wants to see if the deadline of this new strategy will bring better or not socio-economic cohesion across the Member States.

2. Research Methodology

According to the economics theoretical approach, a real economic analysis of a phenomenon has to be based at least three indicators. The analysis in this paper uses the following indicators: GDP growth rate, inflation rate, unemployment rate and government gross debt.

The paper uses the latest official statistic data (European Commission, 2013). The analysis follows three steps. First consists in a comparative analysis between the above four indicators during 1992-2012, in order to establish the trends.

The second step is a cluster analysis made under SPSS19 software, in order to sustain the idea that the Member States can be analyzed under three clusters. The paper uses a TwoStep cluster analysis, where the categorical variables are the above four economic indicators and the distance measure is log-likelihood. The clustering criterion is BIC (Schwarz's Bayesian Criterion). The problem is that these clusters selected for 2012 will be the same in 2020.

Finally, the analysis is focused on a forecast of the GDP growth rates till the end of 2020, in order to observe if the socio-economic disparities across the EU will or not increase. The dependent variables in this forecast are the GDP growth rates and the independent variable is time. The forecast method is ARIMA. The conclusions of the analysis are supported by pertinent statistical tables and diagrams.

3. The Impact of the Global Crisis on the EU28 Economy

There were great economic disparities between the Member States during 1992-2012. This time period can be divided in two parts: the period prior to the global crisis (1992-2008) and the period 2009-2012.

There are great disparities related to the GDP growth rate across the Member States until 2008. The highest dispersion is 1: 4.7 if we take into consideration the average growth rate during whole period and it is related to Italy and Ireland.

As a general point of view, the GDP growth rates decreased in 2009, compared to the period 1992-2008, in all Member States, which faced to negative growth rates. Poland was the exception. This negative trend was followed by a discreet recovery in 2010 and 2011.

On the other hand dispersion continued to increase from -14.8% in Lithuania, to 1.6 in Poland in 2009, from -4.9% in Greece, to 6.6% in Sweden in 2010 and from -7.1% in Greece, to 8.3% in Estonia in 2011.

2012 marked a new negative change as a result of another impact of the global crisis. As a result, the Member States (including Croatia, which adhered in 2013) could be divided into three groups: 13 states with negative GDP growth rates (Belgium, Czech Republic, Denmark, Greece, Spain, Italy, Cyprus, Hungary, Netherland, Portugal, Slovenia, Finland and Croatia), 8 states with GDP growth rates between 0% and 1% (Bulgaria, Germany, Ireland, France, Luxembourg, Austria, Romania and UK) and 7 states with GDP growth rates greater than 1% (Estonia, Latvia, Lithuania, Malta, Poland, Slovakia and Sweden). In order to test if this approach is correct, the paper uses the TwoStep cluster analysis (see Figure 1).

The result of the cluster analysis is fair-good; it means that the assumption of three clusters is correct.

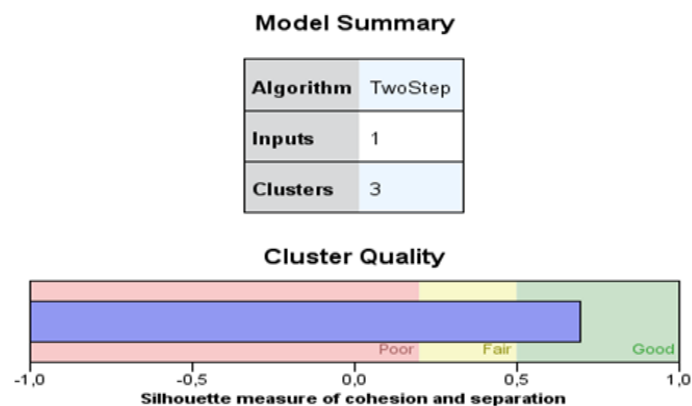


Figure 1. Cluster analysis under GDP growth rate criterion

According to the second indicator (inflation rate), 14 Member States faced to disinflation in 2009, while the other 14 had positive inflation rates, but less than 4.0%.

The highest dispersion was between -2.7% in Ireland and 4.6% in Romania. The inflation rates increased in 2010 and 2011, but the dispersion had not the same trend.

As a result, the highest dispersion was between -2.6% in Ireland and 5.1% in Romania in 2010 and between 0.4% in Sweden and 4.8% in Romania, in 2011. Under the same economic indicator, the Member States can be divided into three groups in 2012: 3 states with inflation rates less than 1% (Ireland, Greece and Sweden), 13 states with inflation rates between 1% and 2% (Belgium, Bulgaria, Denmark, Germany, Spain, France, Latvia, Luxembourg, Netherland, Austria, Portugal, Slovenia and UK) and 12 states with inflation rates greater than 2% (Czech Republic, Estonia, Italy, Cyprus, Lithuania, Hungary, Malta, Poland, Romania, Slovakia, Finland and Croatia). On the other hand, the dispersion interval increased, from -0.1% in Sweden, to 4.7% in Hungary.

The situation will improve in 2014 from the European Commission's point of view (see Table 1) (European Commission, 2013).

Table 1. Inflation rate forecast in the EU28 (%)

State	2009	2010	2011	2012	2013	2014
Belgium	-1.0	1.3	2.5	1.6	0.6	0.5
Bulgaria	1.5	2.0	2.4	1.4	1.6	1.7
Czech Rep.	-0.4	0.2	1.1	2.5	1.1	0.6
Denmark	0.1	1.2	1.7	1.4	0.5	0.5
Germany	-0.8	0.2	1.5	1.1	0.8	0.7
Estonia	-0.8	1.7	4.1	3.2	2.6	2.2
Ireland	-2.7	-2.6	0.2	0.9	0.3	0.3
Greece	0.3	3.7	2.1	0.0	-1.8	-1.4
Spain	-1.2	1.0	2.1	1.4	0.7	0.0
France	-0.9	0.7	1.3	1.2	0.6	0.5
Italy	-0.2	0.6	1.9	2.3	1.0	0.7
Cyprus	-0.8	1.6	2.5	2.1	0.5	0.4
Latvia	0.3	-2.2	3.2	1.3	0.9	1.2
Lithuania	3.2	0.2	3.1	2.2	1.4	1.9
Luxembourg	-1.0	1.8	2.7	1.9	0.7	0.6
Hungary	3.0	3.7	2.9	4.7	2.6	2.3
Malta	0.8	1.0	1.5	2.2	1.2	1.2
Netherland	0.0	-0.1	1.5	1.8	1.6	0.4
Austria	-0.6	0.7	2.6	1.6	1.2	0.9
Poland	3.0	1.7	2.9	2.7	0.8	1.3
Portugal	-1.9	0.4	2.6	1.8	-0.4	0.2
Romania	4.6	5.1	4.8	2.4	3.6	2.3
Slovenia	-0.1	1.1	1.1	1.7	1.1	0.5
Slovakia	-0.1	-0.3	3.1	2.7	0.9	1.0
Finland	0.6	0.7	2.3	2.2	1.5	1.2
Sweden	0.9	0.9	0.4	-0.1	0.1	0.6
UK	1.2	2.3	3.5	1.8	1.6	1.3
Croatia	1.2	0.1	1.2	2.4	2.0	1.0

The highest inflation rate will be achieved in Hungary and Romania (2.3%), while Greece will face to disinflation (-1.4%). According to Table 1, the Member States can be divided into three groups under the inflation rate in 2014, using the same restrictions as in 2012. The cluster analysis will support this approach for 2012 and 2014 (see Figure 2).

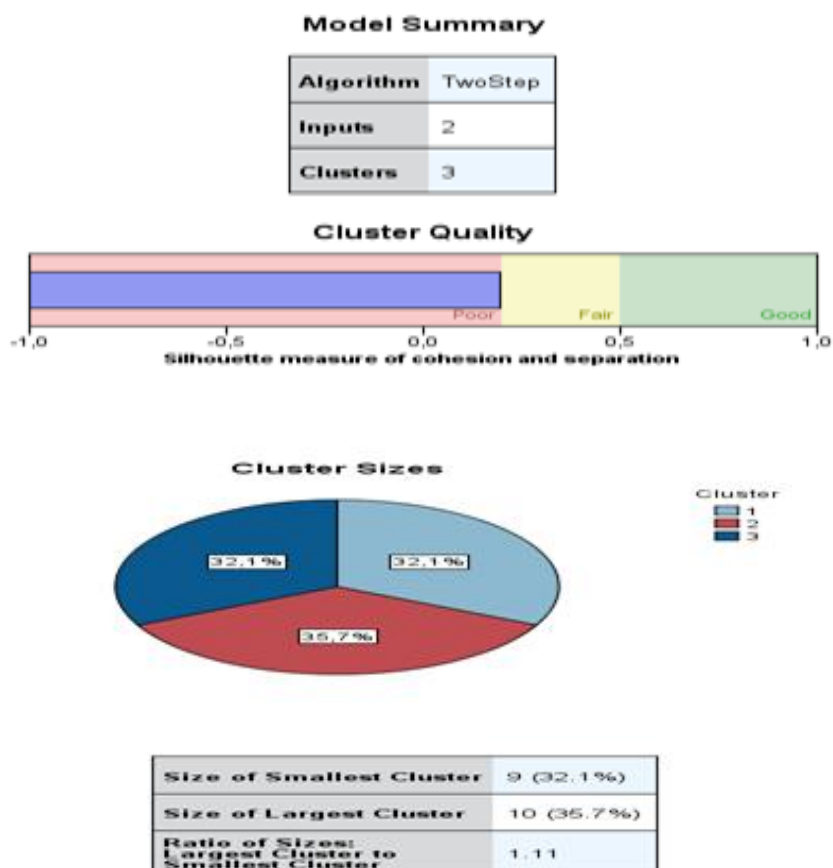


Figure 2. Cluster analysis under inflation rate criterion

Almost all Member States faced to an increase of the unemployment rate during 2009-2011. In 2009, the dispersion interval was great, between 3.7% in Netherland and 18.2% in Latvia.

The economic contraction in 2010 was followed by the increase of the unemployment rates, which varied between 4.4% in Austria and 20.1% in Spain.

The highest level of the unemployment rates increased in 2011 to 21.7% in Spain, while the lowest level was achieved in Austria (4.2%). According to the unemployment rate, the disparities between the Member States allow to divide these states in 2012 into the “classic” three groups: 13 states with unemployment

rates less than 10% (Belgium, Czech Republic, Denmark, Germany, Luxembourg, Malta, Netherland, Austria, Romania, Slovenia, Finland, Sweden and UK), 13 states with unemployment rates between 10% and 20% (Bulgaria, Estonia, Ireland, France, Italy, Cyprus, Latvia, Lithuania, Hungary, Poland, Portugal, Slovakia and Croatia) and 2 states with unemployment rate greater than 20% (Greece and Spain).

The highest unemployment rate was achieved in Spain (25%) and the lowest in Austria (4.4%). The same division can be used for 2014 (see Table 2).

Table 2. Unemployment rate forecast in the EU28 (%)

State	2009	2010	2011	2012	2013	2014
Belgium	7.9	8.3	7.2	7.3	7.7	7.7
Bulgaria	6.8	10.3	11.3	12.2	12.2	11.9
Czech Rep.	6.7	7.3	6.7	7.0	7.6	7.3
Denmark	6.0	7.5	7.6	7.7	8.0	7.9
Germany	7.8	7.1	5.9	5.5	5.7	5.6
Estonia	13.8	16.9	12.5	10.0	9.8	9.0
Ireland	12.0	13.9	14.7	14.8	14.6	14.1
Greece	9.5	12.6	17.7	24.7	27.0	25.7
Spain	18.0	20.1	21.7	25.0	26.9	26.6
France	9.5	9.7	9.6	10.3	10.7	11.0
Italy	7.8	8.4	8.4	10.6	11.6	12.0
Cyprus	5.5	6.5	7.9	12.1	13.7	14.2
Latvia	18.2	19.8	16.2	14.9	13.7	12.2
Lithuania	13.6	18.0	15.3	13.0	11.4	9.8
Luxembourg	5.1	4.6	4.8	5.0	5.4	5.7
Hungary	10.0	11.2	10.9	10.8	11.1	11.1
Malta	6.9	6.9	6.5	6.5	6.4	6.2
Netherland	3.7	4.5	4.4	5.3	6.3	6.5
Austria	4.8	4.4	4.2	4.4	4.5	4.2
Poland	8.1	9.6	9.6	10.2	10.8	10.9
Portugal	10.6	12.0	12.9	15.7	17.3	16.8
Romania	6.9	7.3	7.4	7.0	6.9	6.8
Slovenia	5.9	7.3	8.2	9.0	9.8	10.0
Slovakia	12.1	14.5	13.6	14.0	14.0	13.6
Finland	8.2	8.4	7.8	7.7	8.0	7.9
Sweden	8.3	8.4	7.5	7.7	8.0	7.8
UK	7.6	7.8	8.0	7.9	8.0	7.8
Croatia	9.1	11.8	13.5	15.8	15.9	14.9

The problem is that the highest unemployment rate will achieve 26.6% in Spain, while the lowest unemployment rate will achieve 4.2% in Austria.

Austria and Spain had and will achieve the minimum/maximum levels of the unemployment rates.

The greatest decreases of the unemployment rates will be achieved in Latvia (from 13.7% in 2013, to 12.2% in 2014) and Lithuania (from 11.4% in 2013, to 9.8% in 2014). Great unemployment rates will be in Greece (25.7%), Portugal (16.8%), Croatia (14.9%) and Ireland (14.1%).

The same cluster analysis supports the above conclusion: the possibility of dividing Member States into three clusters with different trends (see Figure 3).

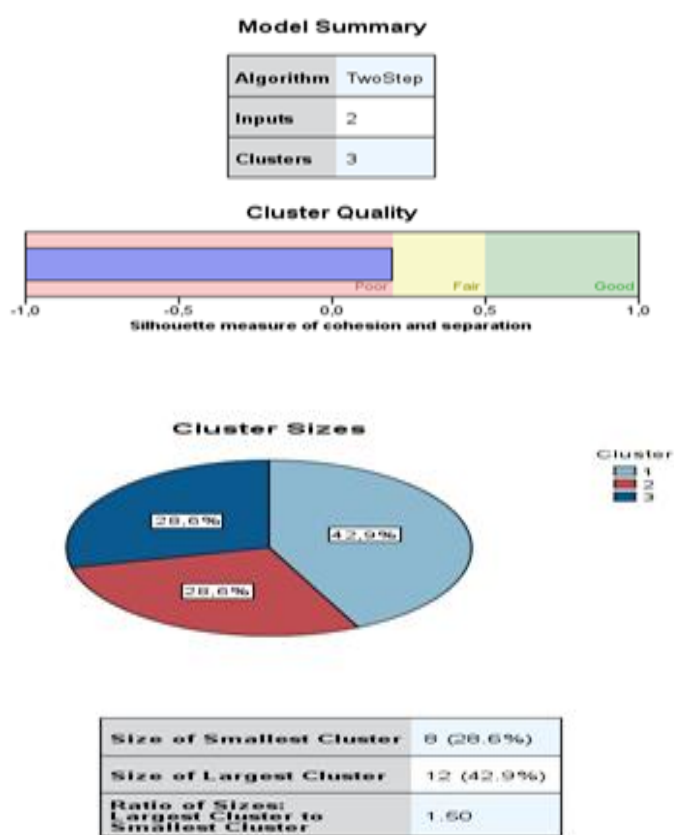


Figure 3. Cluster analysis under unemployment rate criterion

Last, but not the least economic indicator in this analysis is the government gross debt as % of GDP. There are some Member States which experienced high

government gross debts until 2008: Belgium (with an average debt of 109.9% of GDP), Greece (99.5%) and Italy (110.4%). In 2009, these debts increased in almost all Member States, excepting Belgium, Denmark, Netherlands, Finland and Sweden. Moreover, there are great disparities between states with low government gross debts, as Estonia (7.25) and Bulgaria (14.6% of GDP) and states with high debts, as Greece (129.7%) and Italy (116.4%).

Only three states improved their government gross debts in 2010: Estonia, Sweden and Belgium. Moreover, a peak of 148.3% of GDP was achieved by Greece in this year. In 2011, the situation became worst for Ireland, Greece, Italy and Portugal whose debts exceeded their GDP. Greece ranked the first position with a government gross debt of 170.6% of GDP.

The government gross debt values seem to put the Member States in the same three clusters in 2012 and 2014. In 2012, there were: 9 states with government gross debts less than 50% of GDP (Bulgaria, Czech Republic, Denmark, Estonia, Latvia, Lithuania, Luxembourg, Romania and Sweden), 15 states with government gross debts between 50% and 100% of GDP (Belgium, Germany, Spain, France, Cyprus, Hungary, Malta, Netherlands, Austria, Poland, Slovenia, Slovakia, Finland, UK and Croatia) and 4 states with government gross debt greater than 100% of GDP (Ireland, Greece, Italy and Portugal).

The highest government gross debt was achieved by Greece (161.6% of GDP), while the lowest one was achieved by Estonia (10.5%).

There are not major changes in the government gross debts of the above countries in 2014 (see Table 3).

Table 3. Government gross debt forecast in the EU28 (% of GDP)

State	2009	2010	2011	2012	2013	2014
Belgium	95.7	95.5	97.8	94.8	100.8	101.1
Bulgaria	14.6	16.2	16.3	18.9	17.1	17.3
Czech Rep.	34.2	37.8	40.8	45.5	48.0	49.5
Denmark	40.7	42.7	46.4	45.6	45.9	47.3
Germany	74.5	82.5	80.5	81.6	80.7	78.3
Estonia	7.2	6.7	6.1	10.5	11.8	11.3
Ireland	64.9	92.2	106.4	117.2	122.2	120.1
Greece	129.7	148.3	170.6	161.1	175.6	175.2
Spain	53.9	61.5	69.3	88.4	95.8	101.0
France	79.2	82.3	86.0	90.3	93.4	95.0
Italy	116.4	119.2	120.7	127.1	128.1	127.1
Cyprus	58.5	61.3	71.1	86.5	93.1	97.0
Latvia	36.7	44.5	42.2	41.9	44.4	41.5
Lithuania	29.3	37.9	38.5	41.1	40.5	40.3

Luxembourg	15.3	19.2	18.3	20.5	22.2	24.1
Hungary	79.8	81.8	81.4	78.6	78.7	77.7
Malta	66.3	67.4	70.4	73.1	73.8	73.6
Netherland	60.8	63.1	65.6	70.8	73.8	75.0
Austria	69.2	72.0	72.4	74.3	75.2	74.5
Poland	50.9	54.8	56.4	55.8	57.0	57.5
Portugal	83.2	93.5	108.0	120.6	123.9	124.7
Romania	23.6	30.5	34.7	38.0	38.1	38.0
Slovenia	35.0	38.6	46.9	53.7	59.5	63.4
Slovakia	35.6	41.0	43.3	52.4	55.1	57.1
Finland	43.5	48.6	49.0	53.4	56.4	57.6
Sweden	42.6	39.5	38.4	37.7	37.3	35.5
UK	67.8	79.4	85.2	89.8	96.4	97.9
Croatia	35.7	42.2	46.7	53.6	57.4	60.1

Greece will maintain the highest debt level (175.2% of GDP) and Estonia the lowest (11.3% of GDP). The problem is that Belgium, Ireland, Spain, Italy and Portugal will face to government gross debts greater than their GDP in 2014. Moreover, France, Cyprus and UK's government gross debts will be very close to their GDP.

The cluster analysis supports the above conclusions and the Member States grouping into three distinct categories (see Figure 4).



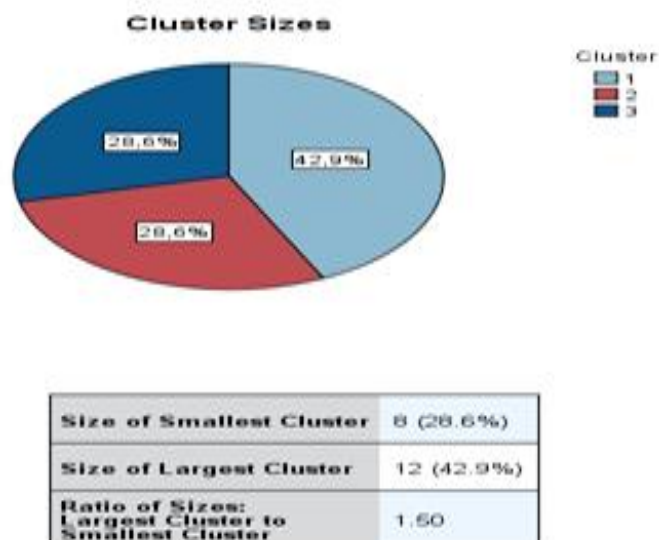


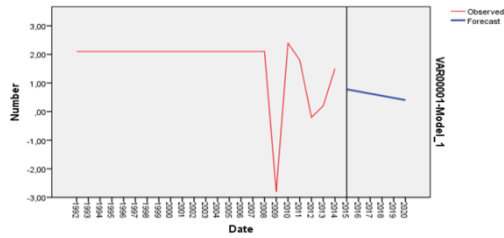
Figure 4. Cluster analysis under government gross debt criterion

At this moment of the analysis, we can obtain two conclusions. The first one is that the social cohesion policy didn't support the elimination of the socio-economic disparities in 2012.

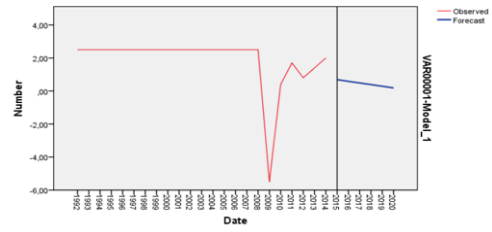
The second conclusion is based on the European Commission's forecast for 2014 and is the same as for 2012. Moreover, the Member States can be divided into "classic" three groups, which can lead to the idea of an EU with three economic speeds.

4. EU28 Economy's forecast for 2020

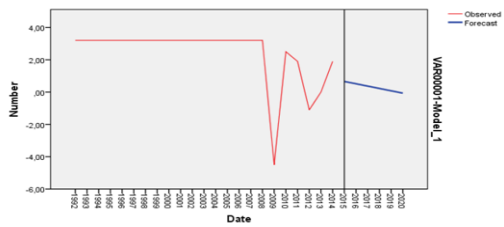
The third approach in this paper is to realize a forecast of the macroeconomic growth across the EU28 during the new financial perspective, using the SPSS19 software (see Figure 5).



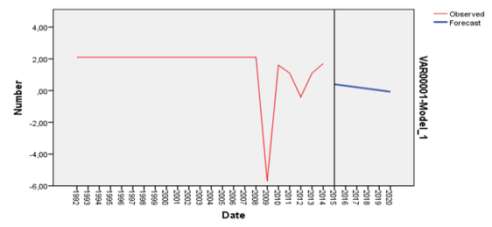
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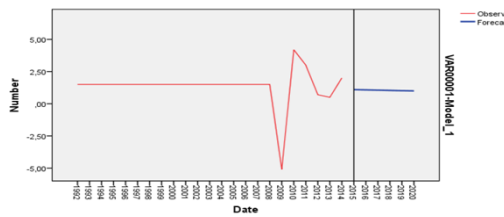
Bulgaria



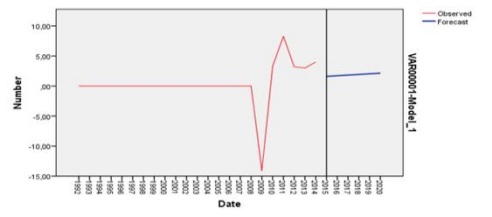
Czech Republic



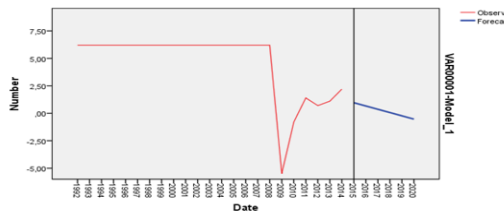
Denmark



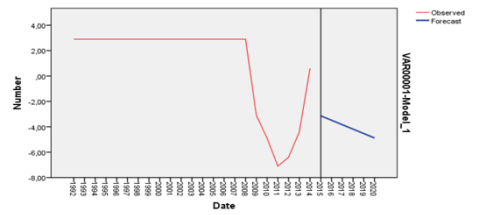
Germany



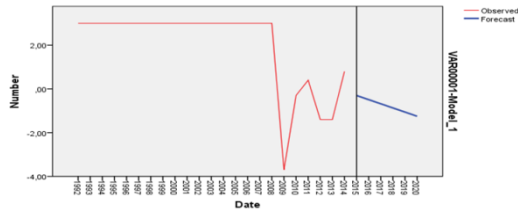
Estonia



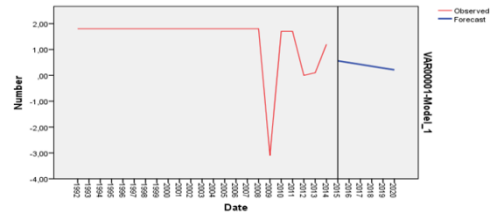
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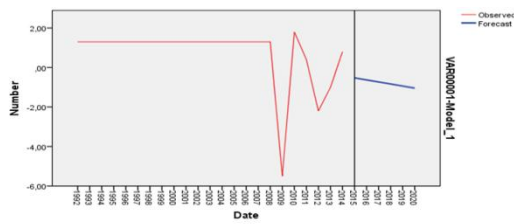
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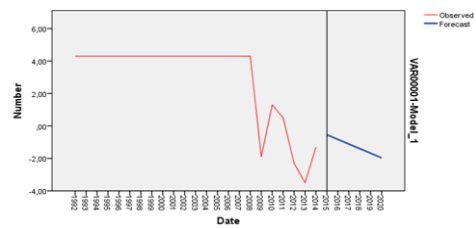
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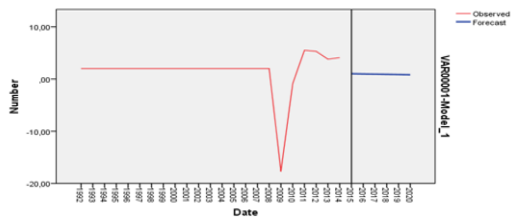
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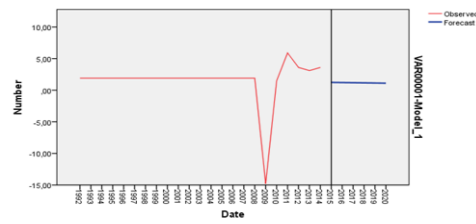
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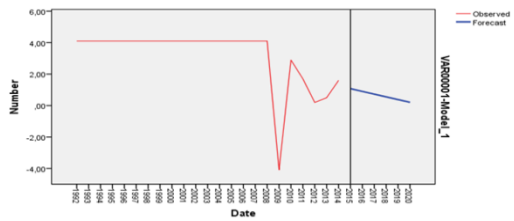
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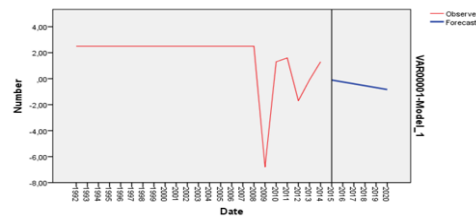
Latvia



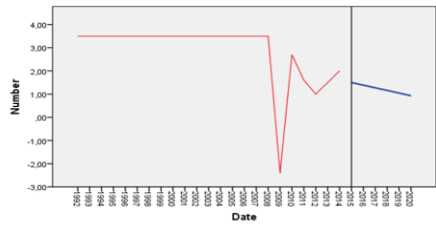
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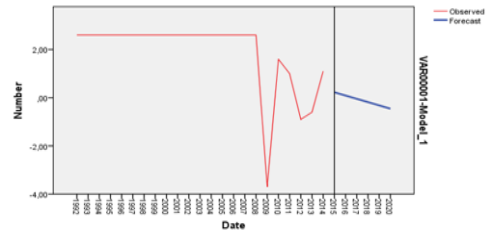
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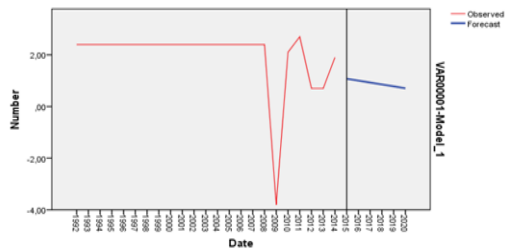
Hungary



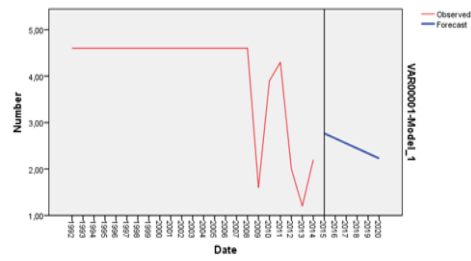
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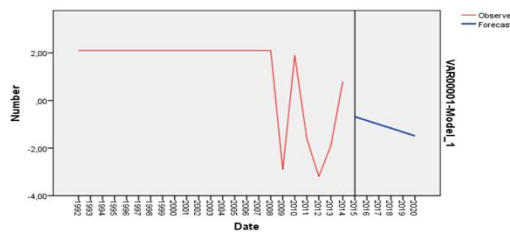
Netherland



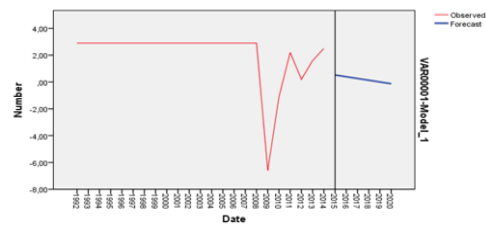
Austria



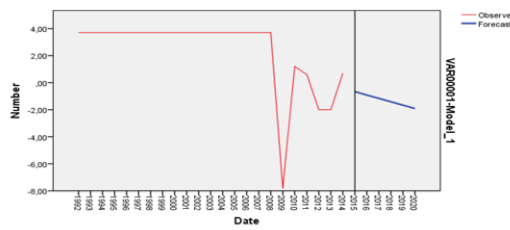
Poland



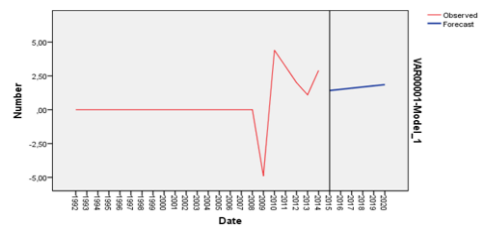
Portugal



Romania



Slovenia



Slovakia

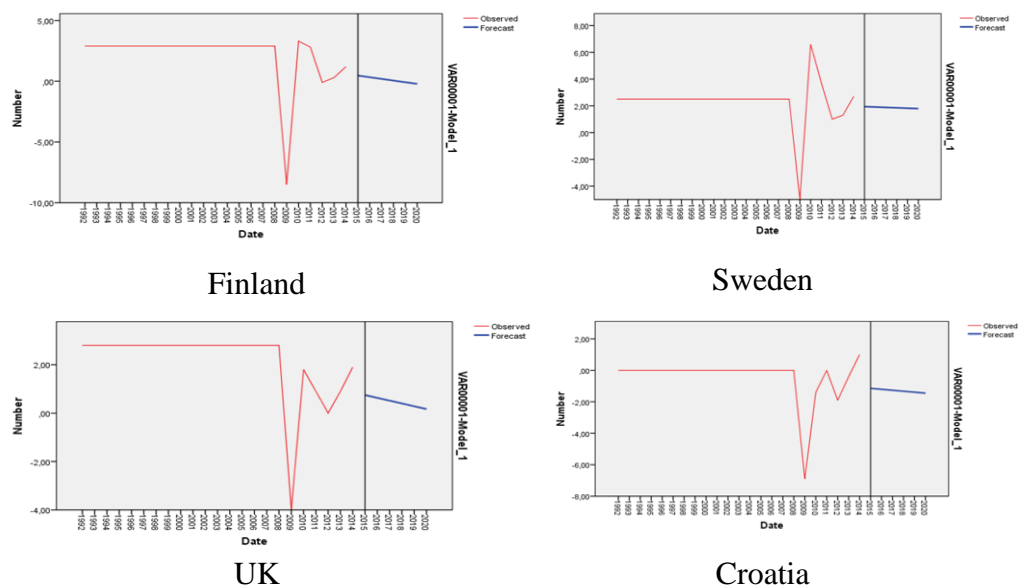


Figure 5. GDP growth rate forecasting

In order to improve the forecast, the analyzed time period in the paper is 20 years (1992-2012). It is completed to the official European Commission forecast for 2013-2014.

According to this forecast, the situation of the Member States in 2020, using the GDP growth rate, is presented in Table 4.

Table 4. GDP growth rate forecast in the EU28 (%)

State	2009	2010	2011	2012	2013	2014	2020
Belgium	-2.8	-2.4	1.8	-0.2	0.2	1.5	0.5
Bulgaria	-5.5	0.4	1.7	0.8	1.4	2.0	0.0
Czech Rep.	-4.5	2.5	1.9	-1.1	0.0	1.9	-0.5
Denmark	-5.7	1.6	1.1	-0.4	1.1	1.7	-0.3
Germany	-5.1	4.2	3.0	0.7	0.5	2.0	1.0
Estonia	-14.1	3.3	8.3	3.2	3.0	4.0	1.2
Ireland	-5.5	-0.8	1.4	0.7	1.1	2.2	-0.3
Greece	-3.1	-4.9	-7.1	-6.4	-4.4	0.6	-4.5
Spain	-3.7	-0.3	0.4	-1.4	-1.4	0.8	-1.5
France	-3.1	1.7	1.7	0.0	0.1	1.2	0.3
Italy	-5.5	1.8	0.4	-2.2	-1.0	0.8	-1.2
Cyprus	-1.9	1.3	0.5	-2.3	-3.5	-1.3	-1.9
Latvia	-17.7	-0.9	5.5	5.3	3.8	4.1	1.0
Lithuania	-14.8	1.5	5.9	3.6	3.1	3.6	0.9

Luxembourg	-4.1	2.9	1.7	0.2	0.5	1.6	0.2
Hungary	-6.8	1.3	1.6	-1.7	-0.1	1.3	1.0
Malta	-2.4	2.7	1.6	1.0	1.5	2.0	1.0
Netherland	-3.7	1.6	1.0	-0.9	-0.6	1.1	-0.5
Austria	-3.8	2.1	2.7	0.7	0.7	1.9	0.8
Poland	1.6	3.9	4.3	2.0	1.2	2.2	2.1
Portugal	-2.9	1.9	-1.6	-3.2	-1.9	0.8	-1.2
Romania	-6.6	-1.1	2.2	0.2	1.6	2.5	-0.2
Slovenia	-7.8	1.2	0.6	-2.0	-2.0	0.7	-1.8
Slovakia	-4.9	4.4	3.2	2.0	1.1	2.9	2.0
Finland	-8.5	3.3	2.8	-0.1	0.3	1.2	0.0
Sweden	-5.0	6.6	3.7	1.0	1.3	2.7	2.0
UK	-4.0	1.8	0.9	0.0	0.9	1.9	0.2
Croatia	-6.9	-1.4	0.0	-1.9	-0.4	1.0	-1.5

According to Table 4, in 2020, 13 states will achieve GDP growth rates negative (Czech Republic, Denmark, Ireland, Greece, Spain, Italy, Cyprus, Hungary, Netherland, Portugal, Romania, Slovenia and Croatia), 8 states will have GDP growth rates between 0% and 1.0% (Bulgaria, Belgium, France, Lithuania, Luxembourg, Austria, Finland and UK) and 7 states will perform GDP growth rates greater than 1.0% (Germany, Estonia, Latvia, Malta, Poland, Slovakia and Sweden).

Poland, Slovakia and Sweden will perform GDP growth rates greater or equal than 2.0% in 2014. Greece, Cyprus, Slovenia and Croatia will face to greatest negative growth rates.

An interesting observation is that the states clusters grouping realized for 2012 is under a 78.57% ratio the same in 2020, which means that the forecast made in this paper is good.

5. Conclusions

Economists tried to find the ideal spatial approach in order to obtain maximum socio-economic benefits. Region seems to be the best spatial concept able to support socio-economic development. The problem is that region is very complex element which can cover a little geographical area, a greater one, a country, a group of countries, a continent and even the world. As a result, the regional approaches are different and contradictory sometimes.

European Union represented a model of regional development. As a result, it tried to implement a powerful Cohesion Policy, in order to achieve prosperity across all EU28 regions and to decrease the socio-economic disparities.

The problem is that EU28 was not able to face the global crisis and to generate the same economic recovery for all its Member States. This is why the interest in regional approach becomes very important now.

In order to implement an optimal regional policy, are necessary theoretical approaches and intervention tools.

There are a lot of regional models created in order to support the efficient regional intervention. Some of them are more sophisticated than others. All these models have restrictions and limits. Moreover, the European Cohesion Policy was implemented in order to support EU as regional integrative organization as global economic actor in its competition to USA, China, Japan and the emerging economies.

This ambitious objective was not achieved. Moreover, the new strategy Europe 2020 will lead to a division of the Member States. The analysis of the latest official data supports the idea of separation into three groups of Member States. This trend is verified by cluster analysis for all four economic indicators used in the paper.

The realized forecast leads to a less aggregated organization in which the national solutions seem to be more used in order to support the economic recovery and the sustainable development on medium term.

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