

Regionalism Reality And Convergence Analysis In The European Union

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Abstract: The countries in the EU have entered into an essential localisation and reconstruction period. In this process, regions have come to the forefront as one of the most important actors of the EU and have acquired an ever-mounting impact area in the decision-making processes. There are two reasons for regional development model has been evaluated on the axis of EU. Differences among the regions have increased due to the enlargement of the Union and this subject has become an aspect that is emphasized after each enlargement process. First of all, European Commission has followed a policy that has a forward effect in order to decrease the instabilities since 1987 and has increased the size of its intervention force. Whether the form of change in the convergence model can be drawn or not, it gives a number of signs about the efficiency of regional policy. Secondly, some changes have occurred in the understanding of regional policy which is the common policy of the EU in the process after 1990s and the understanding of “new regionalism” has come forward. In this understanding, the term of “region” has become essential and acquired a new dimension.

Introduction

New regionalism in EU is being organized ideally by localizing of socio-economic resolution process and putting a common policy into practice for sub-national theoretical frame. Along with this phenomenon, the EU regional policies have passed through a turning point searching more efficient strategies in an atmosphere of economic uncertainty and political change. Interregional convergence has come into prominence in this process.

This study is crucial in terms of EU’s having a new regional understanding after 1990s and giving importance to the phenomenon of “convergence”; showing whether the regions are in the process of “convergence” or “divergence” in this process and this situation’s affecting the decisions of the EU about future. In the study, first of all the concept, the significance and kind of “region” in the EU is mentioned, then differences in development levels of Union’s regions are emphasized. Afterwards, theoretical frame of new regionalism and convergence are drawn and their importance for the EU is mentioned. And then, it is carried into practice. Convergence analysis that is carried for the EU regions covers the period between 1995 and 2005. Though studies have been carried out for 268 NUTS II regions in the EU, analyses have been made for 246 regions due to lack of data on some regions. 246 NUTS II regions are grouped into four different groups considering the enlargement processes of countries. In this study, basic data about the EU have been obtained from the official website www.eurostat.com. Conditional and absolute convergence analyses have been made using cross-section approach which is carried out by Barro and Sala-i Martin.

Definition and Importance of the Region in the EU

Definition of a region in the EU is an extremely sensitive issue in terms of regional policy. As the regional policy of the Union is a policy respecting country borders and not intervening in the area of political system within the nation – state, it is carried out through the “region” definitions of the Member States (Brasche, 2001, p.14). In this respect, the “region” in the EU is defined as the pieces of land similar to each other in terms of geographical, ecological, economic, cultural, ethnical and administrative perspectives.

Regions are becoming more and more significant during the economic and political process of the EU. In the Preamble of the Rome Treaty establishing the EU and even before the Rome Treaty in the European Coal and Steel Community Agreement, the concept of region was drawn attention by envisaging provisions related to the

development of less developed regions and the elimination of inter – regional development disparities (<http://www.hri.org>). Furthermore, the establishment of Committee of the Regions by the Maastricht Treaty is a crucial step forward for the regional authorities to gain right to say in the EU decision – making process officially. Regions have turned into more important units as the interregional development disparities in the EU are becoming more apparent. In the EU, the regional backwardness or the development of the underdeveloped regions has not been coming into prominence, yet decreasing the interregional development disparities has been gaining importance. The importance of the “Region” for the EU has resulted in the involvement of the regional authorities into the integration process.

Classification of the Regions in the EU

In the EU, the concept of region is defined by taking into consideration several criteria such as the areas dominated by a specific sector within the scope of new economic structuring, the areas bordered by a neighbouring country and affected by the economic activities of that neighbouring country, transit regions, regions influenced by the economic structure of a common settlement (Karluk, 2007, pp. 362-363).

The regions are classified as normative and analytical regions. Normative regions reflect political will; their boundaries are fixed in terms of the remit of local authorities. This regions, the size of the region's population regarded as corresponding to the economically optimal use of the necessary resources to accomplish their tasks. Analytical (functional) region; are defined in terms of particular analytical requirements. They categorise areas according to specific geographical criteria such as altitude or soil type, or by economic and social criteria such as the homogeneity, complementarity or polarisation of regional economies (European Commission, 2007, p. 9).

The regions in the EU are separated into categories on the basis of administrative structures of the Member States as well as their economic situation, geographical location, etc (Scott, 2002, p.2).

The regional classification system which is important for the regional policy and the regional instruments of the EU is the classification which is based on the functions and the structures (Commission of the European Communities, 1985, p.2). In the EU, the regions are classified as Homogeneous Regions, Polarized Regions, Administrative Regions, Front Regions, Cross Border Regions, and Planning Regions according to their functions and structures.

Homogeneous regions or uniform regions describe a unity consisted of bilevel and successive segments according to the selected criteria (urban population, per capita income, socio-economic characteristics of the population, etc.) (Erkal, 1990, p.17 & Berry, 1961, p. 278).

Although it has been tried to have homogeneous regions while grouping NUTS regions that will be examined in the scope of the planning regions in the EU, for instance while grouping 11 sub – NUTS II regions in Belgium, heterogeneity can be possible among the regions. The unemployment rate in Région de Bruxelles-Capitale, a region in Belgium, is 17.6 %; whereas it is 4.2 % in Prov. Vlaams Brabant and 4.2 % in Prov. West-Vlaanderen. This heterogeneity rate is a lot more among the regions of different countries. Yet, the cities forming the regions are fairly homogeneous.

Polarized regions are the regions which are clustered around an administrative center city, graded according to their sizes and functions, and manage their fundamental relations via the center city (Taneri, 1986, p.24). The more these regions exercise influence over their surrounding areas, the larger polarized regions they form. For example, Munich region in Germany and Manchester region in the United Kingdom are polarized regions in the EU.

Administrative regions, dependent on the political central authority in the hierarchical decision – making process, are mostly formed in an artificial way. The county councils and municipalities in Sweden and cities in France can be given as examples of administrative regions (Mengi, 2001, p. 23).

Front regions are usually economically the least developed parts of the countries they are located in. For example, Aland region in Finland and Northern Ireland, etc. (Karlsson, 2007, p.42).

Cross – border regions are formed through cross border cooperation. Border regions are tried to be developed and less developed infrastructure is struggled to be improved through these regions. The very first region in this respect is Regio Basiliensis. The mentioned region covers Oberrhein in Switzerland, Alsace in France, and Baden in Germany (Karlsson, 2007, pp.44-47).

Planning regions are determined for EU regional policy, funds and development agencies. For this purpose, the EU designates underdeveloped regions and areas facing structural difficulties through a classification system throughout the Union in order to decrease inter-regional development disparities (Moussis, 2004, p.230). This classification is the NUTS (The Nomenclature of Territorial Units for Statistics) classification system which is a unique and complete system dividing the territory of the EU to produce regional statistics for the EU (Casellas ve

Galley, 1999, p.553). Regions in the NUTS classification system are general administrative units reflecting the limitations of the mandates of local and regional authorities in a specific region (European Commission, 2008, p. 204). The regions in the EU are clustered under NUTS I, NUTS II and NUTS III levels in terms of planning and incentives. Each EU country classifies NUTS regions themselves taking into account development levels and assistance requirements (<http://ec.europa.eu/>). NUTS subdivides each Member State into a whole number of regions at NUTS 1 level. Each of these is then subdivided into regions at NUTS level 2, and these in turn into regions at NUTS level 3. (European Commission, 2005, p.5). This 3 – level classification in the NUTS system is a regional classification as it covers the field management. Besides, there are NUTS IV and NUTS V levels which are the local units (LAU – Local Administrative Units). These units include the settlement administrations (<http://ec.europa.eu/>).

New Regionalism in the EU

Supporting the regions in the EU has always been on the agenda as of the establishment of the Union. The aim of the EU regional policy, supporting the economic integration, has been to ensure coherence of the regional policies among the member states and decrease the existing disparities by using several tools. In the recent two decades, a series of changes of conception has been experienced with regard to overcoming the problem of eliminating inter – regional development disparities and ensuring convergence between the regions. These changes have been reflected to the regional policies of the EU. “New regionalism” concept, which has been developed upon the criticisms of the policies projecting regional policy in the top-down government regimes, has influenced the EU as well as the regional policies of many countries. The “region” has become the first focus of political economy in the policy called “new regionalism”. The regions have begun transferring their institutional capacities (Batchler ve Yuill, 2001, p.10). According to this policy, inter-regional disparities will be alleviated by encouraging inter-regional competition. In tandem with this understanding, the EU addresses the inter-regional inequality problem more widely as a problem of regional development. New regionalism concept aims at revealing internal dynamics and improving local economy through its own dynamics. A regional identity is created in economic, political and cultural fields.

This approach anticipates an understanding of bottom-to-top management in contrary to the former regional policies (Gren, 2002, p.81). Administration and authority are transferred from central government to regions. New regionalism gains more power with the authority granted to it. This authorization is the increase in the power or capacity to progress to the regional agenda. Part of this authorization is used for the purpose of ensuring the region and people to participate in the regional decision-making process constructively (<http://www.munimall.net>). Taking into consideration NUTS classification at the level of local authorities, new service areas and units has been established so as to increase effectiveness and decrease inter-regional development disparities. Thus, it is aimed at maintaining convergence.

Differences and Convergence of the Regions in the EU

There are serious disparities of development among the regions in the EU in terms of certain indicators such as gross domestic product (GDP) per capita, unemployment rate, education and health, the level of research and development activities, and infrastructure facilities. These disparities increase in parallel with the enlargement of the Union. Moreover, important problems of regional disparities still continue even in the founding member states.

It is important whether regional policy will effectively boost the growth of underdeveloped regions and will improve convergence or not. Even though the calibration exercises tend to argue that regional transfer may boost growth, there are still some suspicions concerning the effectiveness of regional policy according to the results of econometric studies and case analyses.

The question of whether the socio-economic development disparities among the countries and the regions will decrease in the course of time or not has an essential place in the economic literature. Variables which put forward economic and social disparities and structural disparities, especially including the GDP per capita figures and GDP variation coefficients, can be used while determining these disparities. Whether these disparities increase or decrease can be explained via the convergence or divergence of examined regions or countries to and from each other.

Convergence is a catchy concept, but one that organizes serious thinking in diverse areas ranging from economic growth, theoretical econometrics, finance, European politics and monetary union, regional planning and geography, up through but not ending at entertainment and multi-media technology, and the software industry. And, in practically every instance the term convergence is used with a different meaning (Quah, 1996, p.1). The concept of convergence which can be described as the alleviation of international or national disparities in certain economic

variables can be shortly expressed as showing a tendency to a single point and approaching to a more similar situation gradually (Gaynor and Karakitsos, 1997, p.24). Neoclassical growth model asserts that per-capita output across countries or regions converges when they have similar preferences, technology levels and institutional and legal systems (Brasili ve Gutierrez, 2004, p.2).

Whether the growth rates of relatively poor countries or regions will reach to those of richer ones in the course of time or not is the convergence approach (Barro ve Sala-i Martin, 1992, p.223). In this approach uses two concepts: β convergence and σ convergence. There is β convergence if poor economies tend to grow faster than wealthy ones. σ concept of convergence is often confused with an alternative definition of convergence, where that the dispersion of real per capita income across groups of economies tend to fall over time (Sala-i Martin, 1996, p. 1327). Two types of β convergence are used in the literature : absolute and conditional. The difference between the absolute and conditional convergence is related to the assumption that whether the economies are in the same condition or not in terms of some factors like technology, institutional infrastructure, and savings ratio. Whilst these kinds of disparities among the regions or countries are overlooked in the absolute convergence, variables that will create these kinds of disparities between the economies are added to the model in the conditional convergence.

Interregional Convergence Analysis in the EU

In the study, a convergence analysis was performed to be able to understand whether inter – regional disparities in the EU are approaching to each other in time or not. The concept of convergence for the EU means that economic disparities between the member states of the Union are to be decreased in accordance with the fundamental aim of the Maastricht criteria and the economic performance levels of the countries are drawn closer to each other as far as possible on a higher common ground rather than a lower one (Dinan, 2005, p.426). Thereby, similarity of the economic coherence and macroeconomic indicators of the regions in the EU within the process was examined through the convergence analysis.

In the study, the method followed by Barro and Sala-i Martin was utilized for the convergence analysis. Convergence analysis was carried out with horizontal cross section approach. The analysis was initiated for 268 NUTS II regions. However, as data could not be found for some regions, the analysis was performed for 246 regions. At this point, 246 regions, consisting of 27 countries, were classified under 4 groups. The aim in this grouping was to form homogeneous groups since adding too many regions in the convergence analysis could lead to wrong and meaningless conclusions. The membership dates of the countries to the EU and the enlargement process was taken into consideration while doing this grouping. There were totally 109 regions from France, Germany, Belgium, Italy, the Netherlands and Luxembourg in the 1st group. A total of 38 regions from England, Denmark and Ireland were found in the 2nd group. There were totally 58 regions from Greece, Portugal, Spain, Austria, Sweden and Finland in the 3rd group. In the 4th group, there were a total of 41 regions from Greek Cypriot Administration of Southern Cyprus, Malta, Hungary, Poland, Slovakia, Latvia, Estonia, Lithuania, Czech Republic, Slovenia, Romania, and Bulgaria. These regions are NUTS II regions of the countries.

In the analysis, the data set covered the period from 1995 to 2005. Analyses were carried out for the whole data set, in other words for 1995 – 2005 period, and for 2 sub – periods; 1995 – 2000 period and 2000 – 2005 period respectively. In this way, the convergence analysis between the regions has provided clearer results throughout the years.

Absolute β convergence and Conditional β convergence and σ convergence were respectively measured for the regions in the groups. Variables were also added to the model in the Conditional β convergence in order to reflect structural characteristics of the regions. Due to the data supply difficulties on the basis of the regions, merely the share of R & D expenditures in the GDP and unemployment rates were utilized. Dummy variable was used for the unemployment rates. It has been determined through these analyses whether the interregional disparities in the EU have the tendency of convergence or divergence and whether the EU regions display similar economic performances in time or not.

In the β convergence measurement, convergence/ divergence analysis was carried out by forming 3 different models for each analysis period and for 4 different groups.

The models of the convergence analysis are as follows:

$$\text{Model 1 : } \frac{1}{T} \log\left(\frac{Y_{i,t}}{Y_{i,t-T}}\right) = a - \left[\frac{1 - e^{-\beta T}}{T} \right] \log(Y_{i,t-T}) + u_{i,t}$$

$$\text{Model 2 : } \frac{1}{T} \log\left(\frac{Y_{i,t}}{Y_{i,t-T}}\right) = a - \left[\frac{1 - e^{-\beta T}}{T}\right] \log(Y_{i,t-T}) + cD_{i,t} + u_{i,t}$$

$$\text{Model 3 : } \frac{1}{T} \log\left(\frac{Y_{i,t}}{Y_{i,t-T}}\right) = a - \left[\frac{1 - e^{-\beta T}}{T}\right] \log(Y_{i,t-T}) + cD_{i,t} + dR_{i,t} + u_{i,t}$$

- $Y_{i,t}$: GDP per capita in the year t
 $Y_{i,t-T}$: GDP per capita in the starting year
 T : Years passed through as of the starting year till the current year
 $D_{i,t}$: Dummy variable which takes the value of 1 if the unemployment rate of the region in the concerned year is lower than the average unemployment rate of the group, and which takes the value of 0 in other cases.
 $R_{i,t}$: The rate of R & D expenditures in the GDP in the concerned year
 $u_{i,t}$: Error term in the regression model

β coefficient was derived through the linear least – squares method and the coefficient was calculated by using $b = \left[\frac{1 - e^{-\beta t}}{T}\right]$ formula. (Note: t statistics in brackets).

Period	Model 1		Model 2			Model 3			
	β	R ²	β	c	R ²	β	c	d	R ²
1995-2005	0,005 (-1,646)	0,025	0,008 (-2,403)	0,004 (2,317)	0,072	0,009 (-2,55)	0,004 (2,39)	0,001 (0,937)	0,079
1995-2000	-0,051 (1,58)	0,023	-0,009 (2,048)	-0,003 (-1,315)	0,038	-0,009 (2,205)	-0,003 (-1,315)	-0,001 (-1,072)	0,049
2000-2005	0,004 (-1,084)	0,011	0,003 (-0,674)	-0,002 (-0,706)	0,015	0,004 (-1,027)	-0,001 (-0,539)	0,001 (1,725)	0,043

Table 1: Regression Results of the Regions in the 1st Group

Regression results of 109 observations in the 1st group during 1995 - 2005 period according to 3 models have been demonstrated in Table 1. When the β coefficient is examined in each 3 models with regard to the convergence, it is seen that the values obtained are positive and are meaningful by 5% in the 2nd and the 3rd models. In the 2nd and the 3rd models, approximately 1% of convergence has been experienced per year during one decade. This convergence is a conditional one. β coefficient is not different from zero in the 1st model during 1995 – 2000 period and it is not possible to mention about the convergence nor the divergence. β coefficient is meaningful by 5% in the 2nd and the 3rd models and there is a divergence. A divergence of approximately 1% per year has been experienced during 5 – year period. Although the β coefficient is positive for 2000 – 2005 period as in the whole period, it is not meaningful statistically. This result means that there is not convergence or divergence in the regions in respect of second sub – period. Variables give more meaningful results in the regions of the 1st group in the long – term analysis.

Period	Model 1		Model 2			Model 3			
	β	R ²	β	c	R ²	β	c	d	R ²
1995-2005	-0,006 (0,809)	0,018	-0,006 (0,828)	0,003 (0,802)	0,036	-0,006 (0,919)	0,003 (0,822)	-0,004 (-0,976)	0,062
1995-2000	-0,029 (3,998)	0,308	-0,028 (3,783)	0,001 (0,32)	0,310	-0,030 (4,164)	0,005 (1,0806)	-0,01 (-1,721)	0,365
2000-2005	0,003 (-0,469)	0,006	0,003 (-0,471)	0,002 (0,533)	0,014	0,002 (-0,381)	0,002 (0,567)	-0,005 (-1,495)	0,075

Table 2: Regression Results of the Regions in the 2st Group

In the 2nd group regions, when the results of each 3 models are examined for 38 observations during 1995 – 2005 period, it is indicated in Table 2 that none of the variables have a meaningful contribution statistically. β coefficients are negative for each of the 3 models during 1995 – 2000 period, yet all the variables are meaningful statistically, which is an evidence for divergence. β coefficient is meaningful by 1 % and there is a divergence of around 3 % during 5 – year period. Although the dummy variable could not add explicitly to the model, R & D expenditures could add explicitly to the model. During 2000 – 2005 period, β coefficients for each 3 models are positive and not different from zero. Here, point estimation cannot be an evidence for conditional convergence by demonstrating that the value is small and meaningless and that convergence of each region to its own steady – state income level has not been realized in distinct way.

Period	Model 1		Model 2			Model 3			
	β	R ²	β	c	R ²	β	c	d	R ²
1995-2005	0,012 (-2,66)	0,112	0,016 (-3,02)	0,004 (1,39)	0,142	0,0151 (-2,564)	0,004 (1,376)	0,0001 (-0,0119)	0,143
1995-2000	0,012 (-2,15)	0,076	0,015 (-2,544)	0,004 (1,371)	0,107	0,015 (-2,232)	0,004 (1,365)	-0,001 (-0,0355)	0,109
2000-2005	0,023 (-4,236)	0,243	0,019 (-2,991)	-0,004 (-1,042)	0,257	0,013 (-1,892)	-0,004 (-1,145)	-0,002 (-1,541)	0,289

Table 3: Regression Results of the Regions in the 3rd Group

Table 3 presents the results of each 3 models for 58 observations in the 3rd group regions during 1995 – 2005 period. For this period, β coefficient is different from zero and meaningful statistically in the 1st model. Besides, the fact that β coefficient is positive shows that there is convergence. It is observed that a convergence of 1.2 %, 1.6 % and 1.5 % was experienced in these 3 models respectively during this decade. The same results have been obtained for absolute convergence and conditional convergence. During 1995 – 2000 period, it is seen that the estimated β coefficient is positive and meaningful by 5 % for all the models. Absolute convergence and conditional convergence has been experienced by 1.2 % of and 1.5 % respectively during this 5 – year period. Yet, the variables added to the model are not explanatory variables. The findings of 2000 – 2005 period are in the same direction with the findings of the first sub – period. In the 1st and the 2nd model, β coefficient is different from zero and is at 1 % level; and it is at 10 % level in the 3rd model. It is seen that a convergence of 2.3 % was experienced per year in the 1st model during the 5 – year period. This convergence is an absolute one. It is observed that there is a convergence of 1.9 % and 1.3 % per year in the 2nd and 3rd models respectively. This situation proves the existence of both absolute and conditional convergence. The variables added to the model in this period are not explanatory variables.

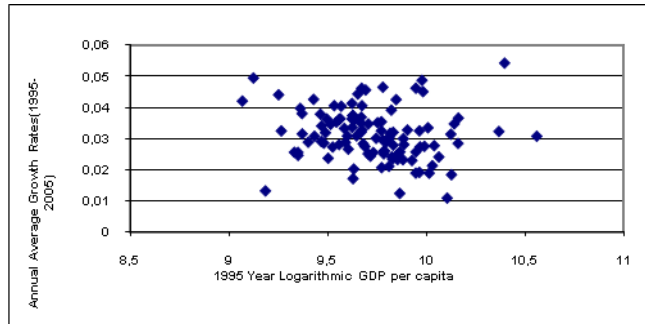
Period	Model 1		Model 2			Model 3			
	β	R ²	β	c	R ²	β	c	d	R ²
1995-2005	0,002 (-0,295)	0,002	0,003 (-0,494)	0,004 (0,861)	0,021	0,009 (-1,365)	0,002 (0,466)	0,009 (1,696)	0,092
1995-2000	-0,021 (3,215)	0,210	-0,026 (3,908)	-0,014 (-2,142)	0,295	-0,026 (3,182)	-0,014 (-2,118)	0,001 (0,141)	0,295
2000-2005	0,016 (-2,15)	0,106	0,020 (-2,736)	0,016 (2,53)	0,235	0,026 (-2,832)	0,014 (2,163)	0,008 (1,043)	0,257

Table 4: Regression Results of the Regions in the 4th Group

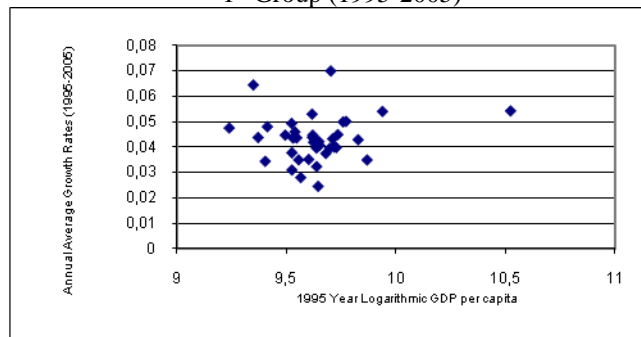
When the results of each 3 models for 41 observations in the 4th group regions during 1995 – 2005 period have been analysed, it has been found out that β coefficient is positive, but not different from zero. In the 1995 - 2000 period, β coefficients are meaningful by 1 % and have negative values. It is seen that a divergence of 2.1 % per year is experienced in the 1st model during this 5 - year period. The same result has been obtained again by adding the variables and a divergence of 2.6 % has been experienced per year. Here, while the dummy variable is explanatory, the variable of R & D expenditure rate can not add explicitly to the model. During 2000 – 2005 period, β coefficient is meaningful by 1 % in the 2nd and the 3rd models and by 5 % in the 1st model. It is observed that a convergence of 1.6 % has been experienced per year and this convergence is an absolute convergence. It is seen that a convergence of 2 % and 2.6 % per year has been experienced respectively in the 2nd and the 3rd models, which is a conditional convergence. It is observed that while the dummy variable is explanatory, there is not a clear conditional convergence even a control variable for the R & D expenditures is added. An explanation of this result is that R & D expenditures do not differ so much among the regions and the fact that the share of R & D expenditures in the GDP is high does not have a great influence on the convergence.

The regions in the 4th group consist of the countries recently participated in the EU. Though a very strong divergence was identified among these regions

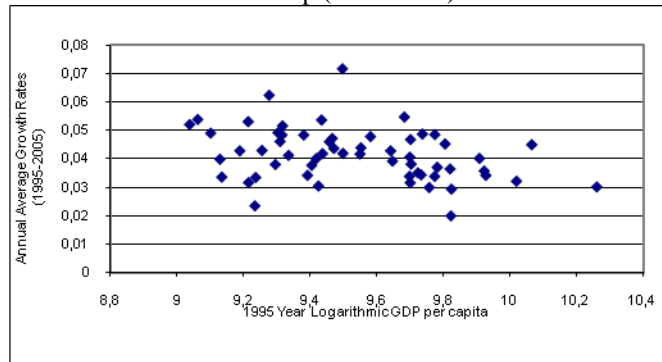
during 1995 – 2000 period, a very strong convergence was identified during 2000 – 2005 period. This is mainly affected by the fact that the EU accession processes of these countries coincided with the second sub – period.



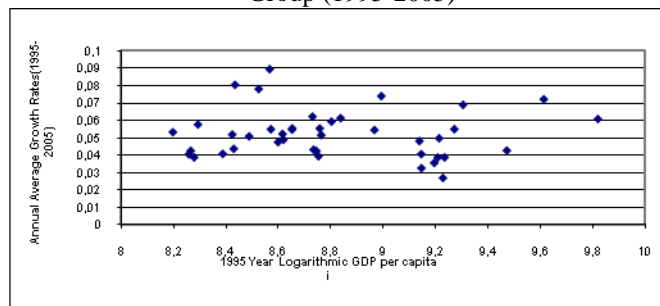
Graph 1: Growth Rates and Starting Year Logarithmic GDP per capita levels of the Regions in the 1st Group (1995-2005)



Graph 2: Growth Rates and Starting Year Logarithmic GDP per capita levels of the Regions in the 2st Group (1995-2005)



Graph 3: Growth Rates and Starting Year Logarithmic GDP per capita levels of the Regions in the 3st Group (1995-2005)



Graph 4: Growth Rates and Starting Year Logarithmic GDP per capita levels of the Regions in the 4st Group (1995-2005)

Standard deviation of GDP per capita figures is calculated and its fluctuation over time is examined for the measurement of σ convergence. β convergence has the tendency to reveal σ convergence. Although β convergence is necessary for σ convergence, it is not an adequate condition. If there is σ convergence in a region, it means that the income inequity is decreasing in that region and it is an evidence for the existence of a tendency for the equalization of income per capita. Table 5 presents the averages and the standard deviations of logarithmic GDP per capita of each group on the basis of years. It is seen in the 1st group regions that the standard deviation expansion was growing and divergence was experienced in time during 1995 – 2000 sub-period. Yet, while the standard deviation of GDP per capita was 0.26 in 1995; it is observed that the standard deviation expansion did not grow over time in 2005, in other words divergence was not experienced, which confirms the existence of convergence. It is seen in the 2nd group regions that the expansion grew over time even if just a bit. It is possible to mention about the existence of convergence throughout all the periods for the 3rd group regions. It is observed in the 4th group regions that the standard deviation expansion grew as of 1995 – 2000 period and declined during 2000 – 2005 period. It is possible to mention about the existence of convergence during that decade. There is not any differentiation between the results of σ convergence and those of β convergence.

On the basis of the results of convergence analyses, it can be stated that a convergence process was generally experienced among the regions in the EU during the examined period and that process was rather a slow one.

	the Regions in the 1 st Group		the Regions in the 2 st Group		the Regions in the 3 st Group		The Regions in the 4 st Group	
	Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation
1995	9,73	0,26	9,64	0,21	9,53	0,28	8,81	0,40
1996	9,77	0,26	9,70	0,21	9,58	0,28	8,86	0,43
1997	9,81	0,26	9,77	0,22	9,64	0,27	8,92	0,44
1998	9,85	0,25	9,81	0,23	9,69	0,27	8,97	0,43
1999	9,90	0,26	9,85	0,23	9,75	0,27	9,01	0,45
2000	9,95	0,26	9,93	0,24	9,80	0,28	9,08	0,44
2001	9,98	0,26	9,97	0,24	9,84	0,27	9,14	0,44
2002	10,01	0,25	10,01	0,24	9,89	0,26	9,20	0,44
2003	10,01	0,26	10,04	0,24	9,91	0,26	9,25	0,42
2004	10,04	0,26	10,10	0,24	9,95	0,27	9,32	0,42
2005	10,07	0,26	10,11	0,24	9,99	0,26	9,39	0,42

Table 5: Average and Standard Deviation of Logarithmic GDP per capita for each group in terms of years

Conclusion

Whether the socio - economic development disparities will decrease in the EU regions in the course of time or not is an important subject. Particularly GDP per capita figures and GDP variation coefficients, and variables revealing economic and social disparities and structural disparities may be utilised in order to determine this. Whether these disparities are increasing or decreasing can be explained through the convergence or divergence of the examined regions or countries to/from each other. The concept of convergence for the EU means that economic disparities between the member states and the regions of the Union is decreased and their economic performance levels are drawn closer to each other as far as possible on a higher common ground rather than a lower one. Along with the impact of new regionalism concept, it is becoming more important that inter – regional development disparities are eliminated by improving the growth rates of under-developed regions effectively and ensuring convergence.

During 1995 – 2005 period, a convergence process, albeit a slow one, was experienced in the regions of the EU. After 1990s, the changes in the regional policies and the new formations in the EU have started to achieve the objectives. However, the convergence results have been evaluated separately for each group. For instance, in the 4th group regions consisting of the very recent members of the EU, although it has been determined that there was a strong divergence during 1995 – 2000 period, it has been found out that there was a strong convergence during 2000 – 2005 period which coincides with their EU accession processes. On the basis of the results of convergence

analyses, it can be stated that a convergence process was generally experienced among the regions in the EU during the examined period and that process was rather a slow one.

Whether the socio - economic development disparities will decrease in the EU regions in the course of time or not is an important subject. Particularly GDP per capita figures and GDP variation coefficients, and variables revealing economic and social disparities and structural disparities may be utilised in order to determine this. Whether these disparities are increasing or decreasing can be explained through the convergence or divergence of the examined regions or countries to/from each other. The concept of convergence for the EU means that economic disparities between the member states and the regions of the Union is decreased and their economic performance levels are drawn closer to each other as far as possible on a higher common ground rather than a lower one. Along with the impact of new regionalism concept, it is becoming more important that inter – regional development disparities are eliminated by improving the growth rates of under-developed regions effectively and ensuring convergence.

During 1995 – 2005 period, a convergence process, albeit a slow one, was experienced in the regions of the EU. After 1990s, the changes in the regional policies and the new formations in the EU have started to achieve the objectives. However, the convergence results have been evaluated separately for each group. For instance, in the 4th group regions consisting of the very recent members of the EU, although it has been determined that there was a strong divergence during 1995 – 2000 period, it has been found out that there was a strong convergence during 2000 – 2005 period which coincides with their EU accession processes. On the basis of the results of convergence analyses, it can be stated that a convergence process was generally experienced among the regions in the EU during the examined period and that process was rather a slow one.

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