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## Structure And Performance Of The Clusters As Sample Provinces In Turkey With Respect To Regional Development

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**Structure and Performance of the Clusters as Sample Provinces in Turkey  
With Respect to Regional Development**

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**ABSTRACT**

Spatial results of agglomeration economies and cumulative process, large urban concentrations occur as Golden Triangle in Europe. Recent developments indicate the rise of several regions outside the traditional heartland of EU. Transition of spatial organization mainly depends on development of transportation and telecommunication infrastructure and flexibility on production process. It encourages new development opportunities in lagging regions.

The aim of this paper, is to analyse the possibilities, characteristics and policies on new development centers to achieve more balanced economic and spatial development in Europe and Turkey. The acuteness of regional problems forces the states to provide the maximum level of assistance for the peripheral/ lagging regions. During the planning period in Turkey, it is suggested that "Priority Provinces in Development" and "the cities with population of 50-500.000" should have precedence in order to direct industrial investments towards them and promoted. It will be investigated if the existence of new regional centers is supported in order to avoid interregional imbalance and to promote peripheral regions by public investments and incentives.

On this occasion, it will be examined the structural profiles and performance of clusters as some sample provinces (couple of provinces) which represent different development level, different regions and different population size. Comparison of these clusters will put forward differentiation and similarities among them in order to interpret possibilities for regional development.

**1. Introduction: Issues and Possibilities on Regional Development of Peripheral Regions**

General approach to the regional problems is classified depressed old-industrial regions, underdeveloped regions and problems of largest agglomeration areas in European Union (Artobelevskiy, 1997). Underdeveloped regions classified most often as agro-industrial regions or regions with extreme natural conditions, have generally become targets of regional policy. The majority of problem regions is a result of an insufficient level of

development in the past or in the case of previously wealthy regions, the inability to adapt to new conditions, and socio-political and cultural backwardness.

The extent of regional disparities in the EU by the end of 1980s is seen from Table 1 in general terms, significant regional disparities are evident between the centre and the periphery of the EU. The process of integration in EU is mostly considered as tool of regional policy to solve *the problem of peripherality*. During the 1994-99 period slightly more than two-thirds of Structural Funds goes to *lagging regions*, and a further 11 percent is earmarked for regions in industrial decline (Martin,1999). The European Commission has a central part to play in shaping Europe of multiple cores, rather than a concentrated European triangle. In order to reinforce economic and social cohesion, the EU has defined *priority areas* by means of five development objectives for the 1994-95 programming period (Pompili 1994; Alden,1997). Progress in the fields of science, economy, culture and other areas will always be distributed from a limited number of centers to the peripheral regions.

Table 1. Social-economic indicators of EU problem regions, end of the 1980s (Artobelevskiy, 1997)

| Type of regions    | Population Density per square km | Unemployment % | Share in the economy |          |         | GDP per capita |
|--------------------|----------------------------------|----------------|----------------------|----------|---------|----------------|
|                    |                                  |                | Agriculture          | Industry | Service |                |
| Less developed     | 76                               | 14,3           | 21                   | 28       | 51      | 67             |
| Declining industry | 271                              | 9,5            | 3                    | 38       | 58      | 98             |
| EU average         | 144                              | 8,3            | 13                   | 32       | 59      | 100            |

There are two main approaches to the disparities between core and periphery in the European Union:

i. Low cost advantages due to production and labor and infrastructural development seem to have helped *lagging regions* of EU grow at rates that were closer to the Unions' average over the 1980s (Suarez Villa&Cuadrado Roura, 1993; Camagni, 1995; Ying, 2000 ). On the other hand, the process of integration within the EU has changed the regions position from *peripheral* in a national context, to *central* in European one. The progress in transport and communication methods has brought *peripheral regions* closer to the centre (Artobelevskiy, 1997).

ii. The most Objective 1 regions failed to use the growth since 1984 as an opportunity to reduce their gap with the core of the Union. Besides attempting to improve the Structural Funds in the present member states, the Commission also faces the challenge of including the new member states from Central and Eastern European Countries (Martin,1999). The question of whether it is necessary to encourage development in all peripheral regions is not simple, as it seems. *The phenomenon of peripherality* will always exist, although its geography will undergo constant change.

In its Agenda 2000 Communication the Commission has responded to the critics of EU regional policy. The Objective 1 share is supposed to remain at two-thirds of total SF expenditures. This would result in a significant increase of per capita support in the new

Objective 1 regions relative to the present per capita figures. The aim is to reduce Objective 1 and 2 coverage from the present 51 percent of the EU population to 35 to 40 percent.

The acuteness of the regional problems forces the states to provide the maximum level of assistance for the *peripheral/lagging regions*. *Regional incentives* are still the most important regional policy instrument at Member State level. The findings of a study (CEC,1993), is about 40 % of companies in the manufacturing sector, considered governmental support as an “important” factor for the choice of the country as well as the region. Regional incentives can influence investment capital flows in the short run. Poor regions in the rich countries are likely to receive higher amount of support (Martin,1998).

The aim of this paper is to examine an assumption by Fischer and Nijkamp (1988) that “many peripheral areas have demonstrated considerable economic dynamism in EU regions”, to the regions in Turkey.

## **2. Regional Development Related to Peripherality, Distribution of Population and Urban System in Turkey**

Three main points are determined in order to progress this research, related to regional development process and policy in Turkey:

i. *The investigation named as “The Hierarchy of Urban Settlements in Turkey”* was made by State Planning Organization in 1982. *16 functional regions* have been derived from the comprehensive analysis in terms of central place theory and the interactions of the centers.

ii. *Definition of “Priority Provinces in Development”* in the 3th Five Year Development Plan (1973-77), has taken place and it is necessary to give precedence these underdeveloped/lagging regions with directing industrial investments in order to be developed these provinces and to avoid interregional disparities in the long term.

iii. In the 5th Five Year Development Plan (1985-89), it is suggested that industrial investments in cities with population of 50-500.000 should be promoted in order to achieve more balanced urban system and *encourage medium-sized cities*.

Turkey is a peripheral region in European geography, on the other hand in economic terms the European Union has already emerged as a center of gravity for Turkey. National regional policy and regional policy of EU are both influence interregional disparities and dynamics of urban development. Capital movements related to economic restructuring process and relations to the EU reflect spatial development within the country. The role of metropolitan cities has increased to constitute and control total capital with respect to increasing international relations and receipts of foreign trade. There is an assumption that new economic process doesn't provide the reasonable conditions for the less-developed regions and *core-periphery regions* are still exist as in the past.

From this dilemma, the aim of the research is to examine if there is a transformation on core-periphery relations, development possibilities of “PPD”, functions of primate city as core region and performance of functional regional centers in Turkey, especially since

1980s. On this occasion, functional regions and their centers are examined on three main clusters as metropolitan core regions, medium-sized cities, peripheral regions.

- Seven regions are existing related to their geographical conditions in Turkey. Almost all variables indicate that there is an obvious disparity between the western and eastern regions of Turkey. Marmara region is the focus of economic dynamism as the core region of Turkey.
- At province level, with respect to the research by SPO there are 5 categories showing differences of development levels. All provinces within the least development level are in the Eastern and South-eastern Anatolia.
- Related to the categories of development level, 3 centers of 16 functional regional centers are in the 4th development level, while 6 of them are in 3rd level. Although there is no center in the 5th development level, nearly half of the centers have still the characteristics of lagging region (Gezici&Atal• k,1997) (Figure 1).

### **2.1. “Priority Provinces in Development” as Peripheral Regions Compare to the Primate City/Core Region**

According to general evaluation, east part of Turkey has still peripheral characteristics. In order to define these core-periphery differences in detail, it is examined on “Priority Provinces in Development”. It is expected that PPD’s should take more public investment and incentives than developed provinces. In 1999, 49 of 80 provinces in Turkey are still defined as “Priority Provinces in Development”.

Seven provinces which are defined as centers of functional regions and located in the eastern part, are within “Priority Provinces in Development” and in the 3rd and 4th development level. The indicators of these provinces are compared with all “PPD”, average of Turkey and the primate city (Table 2). In order to compare population dynamics and the economic performance, population size, population growth rate, GDP per capita, public investment expenditures and private investment incentives, electricity consumption and number of students due to the educational level, are used as the main indicators.

49 provinces as PPD have totally 22 million people and the share is 36% of the country population, while only Istanbul 14.63% of total population. Seven regional centers as PPD have totally 6 million and 27.29% of all PPDs population. Population growth rate is higher than the country’s average only in Diyarbak• r and Malatya. While all regional centers have the value of GDP per capita below the country average, 3 of them are also below PPD’s average.

The share of all PPD’s in public investment expenditures is 12% of total expenditures during 1990-97 period, while the share of Istanbul is 3.63%. Diyarbak• r and S• vas have the highest (8%) share of all PPD’s in private investment incentives, while two regional centers in Black Sea Region have the lowest. On the other hand, Istanbul as a core region/ primate city takes 18.94% of all private investment incentives, while all PPD’s take only 13.69%. The results of this comparison show that the policy on directing investments and stimulating private sector investments to the PPDs has not been succeeded. The figure on

private investment incentives to Istanbul is an evident that they are still going to big cities/core region.

Table 2- Structure and Performance Indicators of Seven Functional Regional Centers as “Priority Provinces in Development” Comparison to the Developed Region as Primate City (Source: SPO,1999)

| Functional Regional Centers as PPDs | Population 1997 |       | Annual Population Growth Rate (per 1000) | Public Investments Expenditures 1997 | Private Investment Incentives 1997 | GNP per capita 1997 | Electricity Consumption 1997 |       | Number of Students in High School 1997-98 |
|-------------------------------------|-----------------|-------|--|--------------------------------------|------------------------------------|---------------------|------------------------------|-------|---|
|                                     | Number          | %     |  |                                      |                                    |                     | Industry                     | Total |   |
| Diyarbakır                          | 1282678         | 5,66  | 22,07                                    | 8,23                                 | 8,44                               | 960002              | 1,27                         | 3,39  | 4,17                                      |
| Elazığ                              | 518360          | 2,29  | 5,57                                     | 1,08                                 | 2,2                                | 1246087             | 8                            | 5,58  | 3,28                                      |
| Erzurum                             | 873289          | 3,85  | 4,1                                      | 2,99                                 | 2,78                               | 605430              | 0,97                         | 2,31  | 3,34                                      |
| Malatya                             | 815105          | 3,59  | 21                                       | 2,87                                 | 5,03                               | 1112384             | 4,23                         | 3,83  | 5,08                                      |
| Samsun                              | 1153763         | 5,08  | -0,9                                     | 8,18                                 | 2,09                               | 1387016             | 4,73                         | 5,35  | 6,57                                      |
| Sivas                               | 698019          | 3,08  | -13,22                                   | 8,69                                 | 8,28                               | 971856              | 2,56                         | 2,7   | 3,61                                      |
| Trabzon                             | 846876          | 3,73  | 8,74                                     | 3,02                                 | 1,72                               | 1050213             | 1,6                          | 2,73  | 4,77                                      |
| Total PPD's                         | 22674233        | 36,06 | 6,19                                     | 13,18                                | 13,69                              | 1005327             | 16,64                        | 18,48 | 29,69                                     |
| Istanbul                            | 9198809         | 14,63 | 34,54                                    | 3,98                                 | 18,94                              | 2792142             | 17,55                        | 19,93 | 16,14                                     |
| Turkey                              | 62865574        | 100   | 15,08                                    | 100                                  | 100                                | 1802763             | 100                          | 100   | 100                                       |

The findings of the electricity consumption indicate regional disparities as well. Electricity consumption both in total and in industrial sector of Istanbul is more than total PPDs. The share of electricity consumption in Istanbul is 19.93%, while the share of all PPDs is 18.48%. The share of 7 regional centers as PPD is only 4.78% in Turkey.

Education of technical highschool is considered as significant factor for social infrastructure and development of lagging regions. From this point of view, number of students in technical highschool in PPD's is more than Istanbul. The share of total highschool education including technical ones is 29.69% in PPDs, while it is 16.14% in Istanbul and 9.15% in 7 provinces as both PPD and functional regional centers, with respect to Turkey. The highest number of students in highschool level is appeared in two provinces in Black Sea Region. This finding put out a contradiction: Though a social-educational dynamic potential of Black Sea Region, population decrease indicates the out migration of skilled labor and development level indicate the lack of investment as a reflection of failed policy.

## 2.2. Population Dynamics and Distribution of Medium Sized Cities

Half of the provinces (40 provinces) in Turkey have less than 500.000 population. When we consider the population concentration in order to define urban system related to regional disparities, there are significant findings as below:

i. It is clear that population concentration of urban system is mainly within Marmara, Aegean and Mediterranean regions, which are considered as, developed regions located in the west.

ii. 14 of 40 provinces, which have, more than 500.000 population is located in East and Southeast Anatolia. Seven functional regional centers as PPD are located in the east and all have more than 500.000 population.

iii. Only 16 of 49 PPDs have more than 500.000 population.

iv. The population in 24 of 49 PPDs have decreased between 1990-97. Two of seven functional regional centers, which are also, PPD have population decrease as well. Almost all provinces, which are PPDs within Black Sea region, have population decrease.

v. Only 5 of 40 provinces, which have more than 500.000 population, show population decrease. They are all PPDs and located in Black Sea Region except one.

vi. 21 of 40 provinces, which have less than 500.000 population as medium sized cities, have population decrease. This is another evident on policy failing in order to encourage development in medium sized cities.

All these findings give an idea about the relation with population concentration and regional development level. Though there is a target to achieve more balanced regional development in the country and it should be reflected population distribution and urban system, it is clear that less developed/lagging provinces and half of the medium sized cities still have population decrease and they are mostly located in east regions and Black Sea.

### **2.3. Structure and Performance of Functional Regional Centers Compare to the Developed/ Core Regions**

The metropolitan areas which the population and economic activities are concentrated in, play a stimulus role for the regional development and these regions have relatively the most developed provinces. In the case of Istanbul region, it can be mentioned about “the proximity to the center” is an effective factor for the level of development. The provinces especially located in the east of this region have features like Black Sea Region.

The provinces which are located in Eastern Anatolia and Black Sea Region as centers of their functional regions have the values below the national average on all variables. On the other hand, a number of provinces, which are not centers of functional regions, have higher values than the regional centers in lagging regions. The main reasons of this result are their industrial performance or coastal dynamics and tourism activities. It is noticed that these provinces are all located in the west of Turkey.

Though the provinces of Southeast Anatolia have the features of lagging regions, one of the population dynamic areas of the country is seen in this region (Figure 1). With respect to the functional regions, 8 provinces of South-eastern Anatolia Project (GAP) are separated two different functional regions. 3 of them are located in Gaziantep region, 5 of them are located in Diyarbakır region. As a result of this analysis, the effects of South-eastern Anatolia Project are not existing for the provinces mainly except Diyarbakır and Gaziantep as functional regional centers. Aspects of South-eastern Anatolia Project cause increase of population growth especially in 3 cities of region (Gezici&Atal, 1997). According to the GAP Action Plan (1995), “...a policy of centers of attraction and/or growth poles in the region must be followed and such a policy must be implemented with determination”. Because of the regional market is still not sufficient size and intensity; the capital formation capacity will still be limited during the plan period. Entrepreneurship in

the region is limited with the exception of Gaziantep, which is not PPD. The government is expected to take an active role in the industrialization process (GAP Action Plan,1995).

In order to put out the inequalities among the functional regional centers with respect to their development level it is compared the structural profiles of clusters as follows (Gezici,1999);

1. the centers of functional regions which are supposed to stimulate development throughout their hinterland,
2. the provinces of first development level as metropolitan core regions,
3. the provinces of second development level as dynamic areas, we obtain the findings as follows (Figure 2):

- Centers of functional regions: low population increase, low share of industry, high share of private investments in total in investments and medium level of the other indicators.
- Provinces of first development level: high urbanization and migration rate, high share of private investments in total in investments, low share of agriculture, medium level of the other indicators.
- Provinces of second development level: low population increase, low share of industry, highest share of private investments in total in investments and medium level of the other indicators.

The centers of functional regions and the provinces of second development level put forward similar characteristics and performance. Because, the centers which are at 1st and 4th development level influence the average values of regional centers.

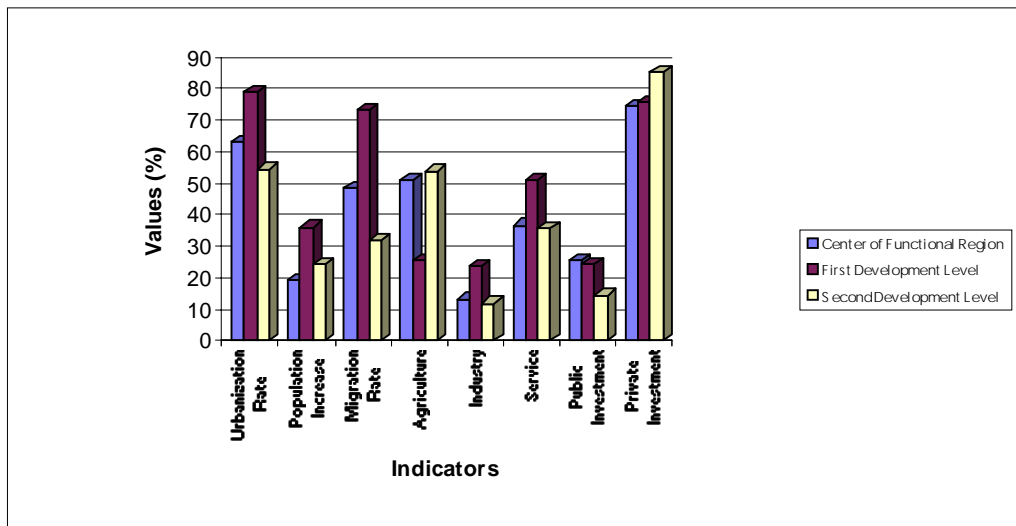


Figure 2- Structural Profiles of Clusters (1990) (Gezici,1999)



### 3. Population Concentration with respect to Functional Regions and Development Level

Another analysis is to examine the relation of population distribution with respect to functional regions and their development level. Table 3 shows that 16 functional regions have obviously different population concentration and level of development:

- Seven regions which are located in the west of Turkey (in Marmara, Aegean, Mediterranean and Central Anatolia according to the geographic base) are all have high development level, only 4 of 37 provinces in 7 developed regions are at 4th development level. 64.67% of country population lives in 7 developed regions.
- The region which the center is Konya, takes the place at medium level as their geographic position. It is located in Central Anatolia and it has 4 provinces at 3rd development level.
- Other 8 regions are located in East, Southeast Anatolia and east of Black Sea Region. While there is no province at 1st and 2nd development level, 26 of 33 provinces are at 4th and 5th development level. All of the provinces in these 8 regions are also PPDs.
- It is obvious that there are differences also in 7 developed regions. The contribution of Istanbul mostly influences high values in this group (Gezici&Atal• k, 1997). On the other hand, Istanbul and • zmir metropolitan centers have the largest hinterland including more than 10 cities each, and 41.68% of total population. This figure indicates the features of core regions. Though, still the dominant function of Istanbul as primate city in the national urban system (Figure 3), it has caused the development of adjacent provinces especially Kocaeli and Tekirda• at both side as a meaning of spread effects.

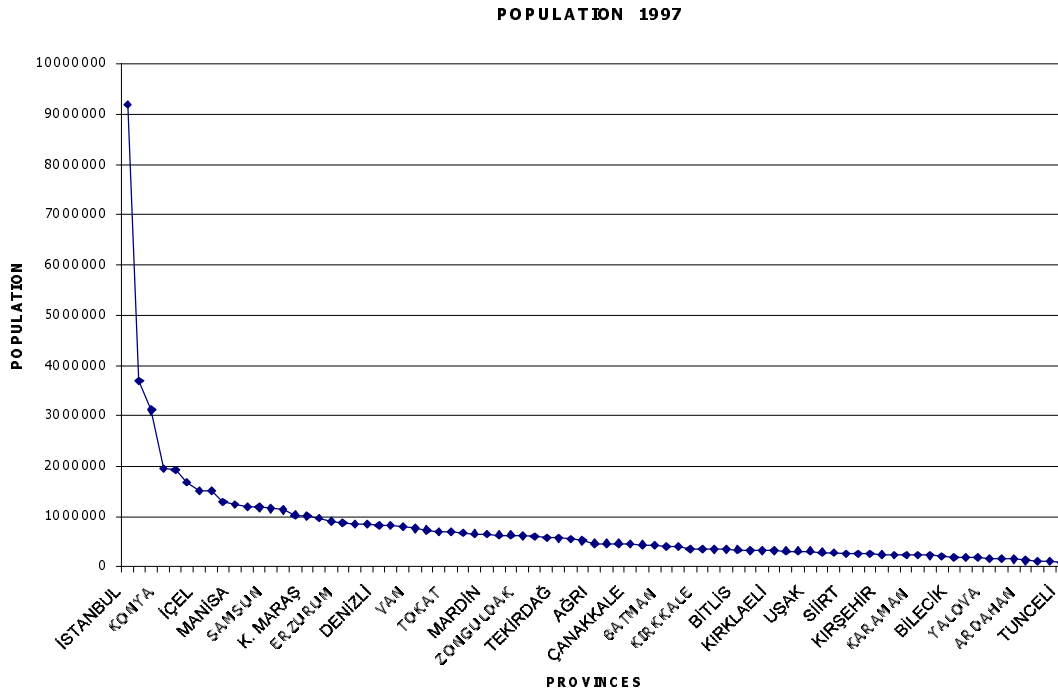


Figure 3- Dominant Function of • stanbul as a Primate City According to the Rank Size Rule, 1997

The figure 4 shows the population distribution with respect to development level:

- 30% of total population live in 5 provinces of 4 most developed functional regions at 1st development level.
- 26.60% of the population live in 28 provinces of 12 functional regions and at 3rd development level.
- 2nd and 4th development levels share similar number of provinces and percentage of population.
- 8.33% of the population live in 15 provinces which have the lowest development level. These are obviously *lagging/peripheral provinces* in the country.

When we look at the country map, 7 of these less developed/lagging provinces are periphery with respect to their border position. Migration is the significant factor in order to evaluate population dynamics. In 1990, 10 provinces which have the highest immigration are at 1st and 2nd development level and located in the west, while 10 provinces which have the highest outmigration are at 4th and 5th development level in the east (Demirci,M.&Suna,B., 1998). The provinces, which have net immigration ratio mostly, show coastal dynamics or features of metropolitan areas.

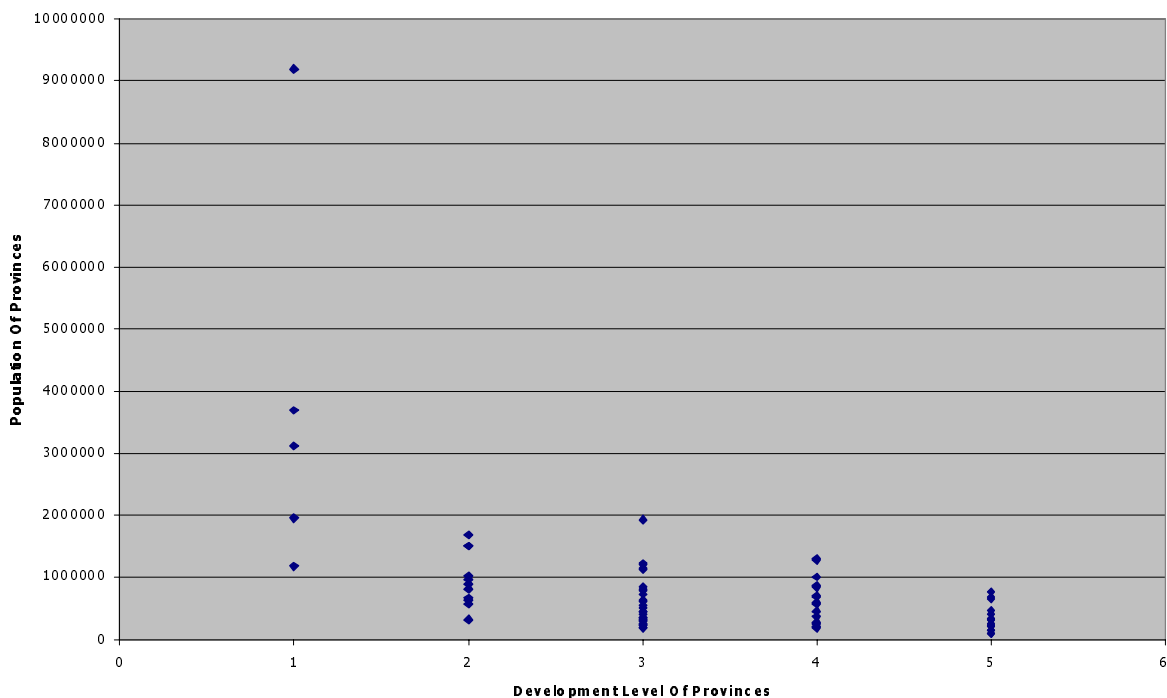


Figure 4- Distribution of Provinces by Population Size With Respect to Development Level (Source: SPO,1999)

#### 4. Comparison on Structure and Performance of Clusters as Couple of Provinces

The aim of this analysis is to compare the performance of clusters as couple of provinces in order to find differences and similarities between each couple provinces and among couples. The selection is mainly depend on representation of different

development level, different geography and functional regions and finally 8 couples are examined (Table 4):

i. *Metropolitan core regions*: 1.development level and both of them regional centers.

Almost all indicators of performance indicate the highest value.

ii. *Environs of Istanbul Metropolitan Area*: 1.-2.development level, attractive areas for industrial expanding. They are both in the same region and are not regional centers. But they have higher performance than many regional centers. Kocaeli which was directly effected from “17 August Earthquake”, had higher value than Istanbul especially on the indicators of population growth, migration rate, GDP per capita and electricity consumption per capita. These figures indicate the significant role of Kocaeli in national economy before the earthquake. Tekirda• is new industrial development area rather than Kocaeli and the share of private investment incentives in this province is at third rank among the selected provinces.

iii. *Coastal-tourist regions*: 2.development level. Provinces in the region, which center is • zmir. Both of them are main tourist points in Aegean. Mu• la has higher values on almost all indicators.

Table 4- Differentiation’s and Similarities on Structure and Performance Indicators of Clusters as Couple of Provinces (Source: SPO;1999)

| Clusters as Couple of Provinces | Share of Population 1997 | Annual Population Growth Rate (per 1000)-1997 | Migration Rate 1985-90 | GDP per capita 1997 | Public Investments 1997 | Private Investment Incentives 1997 | Electricity Consumption Per capita-1997 |
|---------------------------------|--------------------------|---|------------------------|---------------------|-------------------------|------------------------------------|---|
| • stanbul                       | 14,63                    | 34,54   | 107,56                 | 155                 | 10,45                   | 18,94                              | 136                                     |
| • zmir                          | 4,95                     | 20,38   | 63,76                  | 157                 | 4,38                    | 7,42                               | 207                                     |
| Kocaeli                         | 1,87                     | 34,56   | 108,21                 | 250                 | 2,67                    | 2,07                               | 265                                     |
| Tekirda•                        | 0,9                      | 26,84   | 46,69                  | 135                 | 0,95                    | 5,79                               | 255                                     |
| Mu• la                          | 1,02                     | 18,08   | 32,88                  | 143                 | 3,19                    | 2,12                               | 114                                     |
| Ayd• n                          | 1,43                     | 12,27   | 27,05                  | 107                 | 0,94                    | 1,02                               | 75                                      |
| Adana                           | 2,68                     | 11,61   | 15,84                  | 114                 | 0,92                    | 4,95                               | 124                                     |
| • çel                           | 2,4                      | 24,49   | 68,3                   | 109                 | 2,55                    | 1,2                                | 79                                      |
| Gaziantep                       | 1,79                     | 15,45   | -0,48                  | 82,45               | 1,28                    | 2,78                               | 115                                     |
| Diyarbak• r                     | 2,04                     | 22,07   | -34,76                 | 53,25               | 2,84                    | 1,15                               | 31                                      |
| Trabzon                         | 1,35                     | 8,74  | -67,88                 | 58,25               | 1,06                    | 0,23                               | 37                                      |
| Samsun                          | 1,83                     | -0,9  | -29,06                 | 76,94               | 2,83                    | 0,28                               | 5,4                                     |
| Erzurum                         | 1,39                     | 4,1   | -113,17                | 33,58               | 1,03                    | 0,38                               | 31                                      |
| Kars                            | 0,51                     | -11,24  | -163,54                | 28,79               | 0,34                    | 0,07                               | 31                                      |
| Karabük                         | 0,36                     | -9,96   | 0                      | 188                 | 0,05                    | 0,91                               | 78                                      |
| Bart• n                         | 0,29                     | -13,49  | 0                      | 40,7                | 0,25                    | 0,11                               | 67                                      |
| TURKEY                          | 100                      | 15,08   |                        | 100                 | 100                     | 100                                | 100                                     |

iv. *Industrial-dynamic areas in Mediterranean*: 2.development level and industrial regions in Mediterranean. Two provinces have similar values on the share of population and GDP per capita. Adana is the center of the region, though they are in the same development level. • çel has higher values on population growth rate and migration during 1985-90 period. But in economic terms, private investment incentives and electricity consumption per capita in Adana are higher than • çel.

v. *Industrial Centers in Southeast Anatolia*: Two provinces are both centers of their regions and are included in Southeast Anatolian Project (GAP). Gaziantep is in 3rd development level, while Diyarbakır is 4th and in PPDs as well. It is seen the differences from the other four clusters according to the values which are generally lower than country average. Though they have similarities, Gaziantep is more dynamic area with its value of GDP per capita, electricity consumption per capita, migration rate and private investment incentives. Gaziantep takes place in the 5th rank in all these clusters with respect to private investment incentives.

vi. *Functional regional centers as PPD in the Black Sea Region*: Two provinces are both centers of their regions and in the PPDs though they are both at 3rd development level. While Trabzon has lost more population during 1985-90, in 1997 annual population growth rate is higher than Samsun. The share of public investments is higher in Samsun, while private investment incentives are indicated similar values.

vii. *PPD and outmigration areas in the East Anatolia*: Erzurum is the center of the region and at 3rd development level, while Kars is a province of Erzurum region and at 4th development level. They are both in PPDs and obviously outmigration areas, though Erzurum has a positive annual population growth rate in 1997. The values of GDP per capita and electricity consumption per capita are similar. It is seen the share of public-private investment is still very low, though they are in PPDs. In addition to this, Kars is peripheral area with respect to its border position.

viii. *New provinces and medium sized cities*: They are both new provinces in the west of Black Sea Region and take place in the functional region, which Istanbul is, the center. Though their share of population is the least, they have higher values on GDP per capita and electricity consumption per capita than cluster of Erzurum-Kars. Karabük has higher values than fifth and sixth clusters, because it is an old industrial area and have an economic dynamism in the past.

The reasons of lagging/backward regions in Turkey are as follows:

- i. Insufficient level of development in the past due to their peripheral location or geographic conditions (long and heavy winter, lack of technical infrastructure and accessibility, unbalanced distribution of land property).
- ii. Inability to adapt to new conditions, social-cultural backwardness (Lack of skilled labor, difficulties in education, lack of social infrastructure, lack of technology and innovation).
- iii. Lack of policy implementation, insufficient level of public and private investments.

In general, two main points, which are the indicators of development and implementation, level of the policies as follows:

- i. public investments as active role of government
- ii. regional incentives of private sector investments

Except Istanbul, which is the highest share of both public and private investment as primate city, it is difficult to say that there is a significant relation between the share of public investments and less developed/lagging regions. Though Diyarbakır and Samsun take relatively more public investments as PPDs than the other developed provinces, private investment incentives obviously can not directed towards to lagging regions except Gaziantep and Diyarbakır as dynamic areas in the Southeast Anatolia.

Though the centers which are located in Southeast Anatolia fill with hope, while the others in eastern part do not have sufficient performance in order to stimulate development in their regions.

## **5. Concluding Remarks:**

In European Union, a system of redistribution is also required to divide benefits in a manner acceptable to different parts of Union. In many countries, interregional differences in the rate of expansion of the cities have emerged. There are different interpretations and approaches to the new economic and spatial organization. On the one hand, the rise of several regions outside the traditional heartland of the EU indicates that there is no rigid geographic determinism in the core-periphery pattern. The progress in transportation and communication has brought peripheral regions closer to the center. But on the other hand, another assumption is that new economic process doesn't provide reasonable conditions for the less developed/ lagging regions. Because of these different approaches, it is necessary to be more careful and realistic especially to evaluate these process in developing countries.

In Turkey, though development plans imply investment priority in the medium-size cities which are located in less- developed regions, the recent findings show that these policies are not strictly applied. With respect to the population distribution and urban system in the country, it is clear that less developed/lagging provinces and half of the medium sized cities still have population decrease and they are mostly located in east regions and Black Sea.

The most important result of this analysis is disparities between the eastern/lagging and western/developed regions of Turkey are still exist. Half of the provinces, which are considered as stimulus growth centers in their functional regions, have still the characteristics of lagging regions.

As a conclusion of this research, we can mention about three kinds of population dynamic areas in Turkey, except metropolitan areas: Environs of Istanbul and attractive areas for industrial expanding, coastal and attractive areas for tourism activities in Aegean and Mediterranean regions and certain provinces of Southeast Anatolia.

Depending on the functional regions, it is emphasized that sub-regions and regional centers will be defined especially in developed regions like Istanbul in order to prevent over-urbanization of the metropolitan cities. On the other hand, the government is still expected to take an active role in the industrialization process of lagging regions. Otherwise it is difficult to use endogenous dynamics. But, private investment incentives obviously can not directed towards to the lagging regions except a few examples. The analysis of the functional regions indicates that these regions could not be used effectively as a tool in order to direct investments and stimulate development within their hinterland. It could be useful to make this kind of research by taking new economic and spatial dynamics, and define more significant and rational regions in order to direct investments by a strong regional policy.

## References:

Alden, J. (1997) "Regional Development Strategies in the EU", Regional Policy in Europe, ed.by.S.S.Artobolevskiy, Regional Policy and Development 11, Regional Studies Association, Athenoem Press, pp.1-13.

Artobolevskiy,S.S., (1997), "The Main Directions of Regional Policy", Regional Policy in Europe, Regional Policy and Development 11, Regional Studies Association, Athenoem Press,pp.51-104.

Camagni, R.P. (1995) "The Concept of Innovative Milieu and Its Relevance for Public Policies in European Lagging Regions", Papers in Regional Science, Vol.74, No:4, October 95, pp.317-340.

Demirci,M.&Suna,B., (1998), "Nüfus Say• lar• ile Derlenen • ç Göç Bilgisinin De• erlendirilmesi", Konferans: Türkiye'de • ç Göç, Bolu-Gerede, 6-8 Haziran 1997, Tarih Vakf• , Istanbul, s.125-151.

DPT(SPO), (1996) İllerin Sosyo-Ekonomik Geli• mi• lik S• ralamas• Ara• t• rmas• (The Research on the Rank of Socio-Economic Development Level of the Provinces), Yay.No:DPT:2466, December 1996

Fischer, M.& Nijkamp,P., (1988), "The Role of Small Firms for Regional Revitalization", Annals of Regional Science 12, pp. 28-42.

Gezici, F., (1999), The Potential of Regional Centers in Turkey Related to the Growth of Core Regions, 39th European Congress of RSA, Dublin, 23-27 August 1999.

Gezici, F.& Atal• k,G. (1997) "Interregional Disparities and the Role of Growth Center Policies: European Union and Turkey", 37.ERSA Congress, 26-29 August 1997, Rome.

Martin, R., (1999), "Regional Policy", Frank McDonald&Stephan Dearden (eds.), European Economic Integration, Longman, New York, pp.209-238.

Martin, R., (1998), "Regional Incentive Spending for European Regions", Regional Studies, Vol.32.b, pp.527-536.

Pompili, T., (1994) "Structure and Performance of Less-Developed Regions in the EC", Regional Studies, Vol.28, No:7, November 1994, pp.679-694.

Southeastern Anatolia Project Regional Development Administration, (1995), Southeastern Anatolia Project (GAP) Action Plan, Ankara.

SPO (1999), Various Indicators Related to Provinces and Regions, General Directorate of Regional Development and Structural Adjustment, February 1999.

Suarez Villa,L. & Cuadrado Roura,J.R.(1993) 'Regional Economic Integration and the Evaluation of Disparities', Papers in Regional Science: The Journal of the RSAI 72, 4: 369-387.

Ying, L.G., (2000) "Measuring the Spillover Effects: Some Chinese Evidence", Papers in Regional Science, Vol.79, No:1, January 2000, pp.75-89.

Table 3- Distribution of Provinces and Population with respect to Functional Regions and Development Level

| Functional Regions | 1. Development Level |            |       | 2. Development Level |            |       | 3. Development Level |            |       | 4. Development Level |            |       | 5. Development Level |            |       | Total Population |
|--------------------|----------------------|------------|-------|----------------------|------------|-------|----------------------|------------|-------|----------------------|------------|-------|----------------------|------------|-------|------------------|
|                    | Number of            | Population | %     | Number of            | Population | %     | Number of            | Population | %     | Number of            | Population | %     | Number of            | Population | %     |                  |
|                    | Provinces            |            |       | Provinces            |            |       | Provinces            |            |       | Provinces            |            |       | Provinces            |            |       |                  |
| • stanbul          | 2                    | 10376188   | 70,17 | 2                    | 886262     | 5,99  | 7                    | 3158970    | 21,39 | 1                    | 363700     | 2,45  |                      |            |       | 14785120         |
| Ankara             | 1                    | 3693390    | 77,56 |                      |            |       | 1                    | 241507     | 5,07  | 2                    | 826786     | 17,36 |                      |            |       | 4761683          |
| • zmir             | 1                    | 3114859    | 28,14 | 5                    | 4896835    | 44,25 | 5                    | 3055720    | 27,61 |                      |            |       |                      |            |       | 11067414         |
| Bursa              | 1                    | 1958529    | 100   |                      |            |       |                      |            |       |                      |            |       |                      |            |       | 1958529          |
| Eski• ehir         |                      |            |       | 1                    | 660843     | 44,28 | 2                    | 831689     | 55,72 |                      |            |       |                      |            |       | 1492532          |
| Adana              |                      |            |       | 2                    | 3190715    | 72,72 | 1                    | 1197139    | 27,28 |                      |            |       |                      |            |       | 4387854          |
| Kayseri            |                      |            |       | 1                    | 974035     | 52,32 | 1                    | 287866     | 15,46 | 1                    | 599690     | 32,28 |                      |            |       | 1861591          |
| Konya              |                      |            |       |                      |            |       | 4                    | 2819164    | 100   |                      |            |       |                      |            |       | 2818164          |
| Gaziantep          |                      |            |       |                      |            |       | 1                    | 1127686    | 27,38 | 2                    | 2311696    | 56,13 | 1                    | 678999     | 16,49 | 4118381          |
| Elaz• •            |                      |            |       |                      |            |       | 1                    | 518360     | 61,77 |                      |            |       | 2                    | 321058     | 38,23 | 839718           |
| Trabzon            |                      |            |       |                      |            |       | 2                    | 1172457    | 69,34 | 1                    | 184070     | 10,89 | 2                    | 334428     | 19,77 | 1690955          |
| Samsun             |                      |            |       |                      |            |       | 2                    | 1499954    | 40,41 | 4                    | 2211740    | 59,59 |                      |            |       | 3711694          |
| Malatya            |                      |            |       |                      |            |       | 1                    | 815105     | 100   |                      |            |       |                      |            |       | 815105           |
| Sivas              |                      |            |       |                      |            |       |                      |            |       | 1                    | 698019     | 100   |                      |            |       | 698019           |
| Erzurum            |                      |            |       |                      |            |       |                      |            |       | 2                    | 1153407    | 45,95 | 4                    | 1356662    | 54,05 | 2510065          |
| Diyarbak• r        |                      |            |       |                      |            |       |                      |            |       | 1                    | 1282678    | 33,49 | 6                    | 2547442    | 66,51 | 3830120          |
| Total Population   | 5                    | 19142966   | 31    | 11                   | 10608690   | 17    | 28                   | 16725617   | 27    | 15                   | 9631786    | 16    | 15                   | 5238589    | 9     | 61347648         |