The Debate on the Transition to Flexible Production:

A Case Study on Manufacturing Industry in Turkey & its Provinces

By

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ABSTRACT

This thesis is mainly about the ‘flexible production’ debates, which were introduced by the 1970s and are still concerned in various scientific disciplines. The debate has been considered not only as concerns of the transformations within the production, but also in parallel to the holistic transformation of the capitalist system. The fundamental emphasis has been on the fact that capitalism is a historical system and on its relations with ‘industrial production’ and ‘industrialization’ processes.

From this perspective, the three widely known approaches to flexible production, namely the ‘neo-Schumpeterian approach’, the ‘flexible specialization approach’, and the ‘regulation school approach’, have been evaluated in detail. It has been firmly emphasized that each of these approaches provided considerable statements within the debates on flexibility. The thesis in general has favoured the regulation school approach with its methodological means, and highlighted that it has developed the most appropriate approach in comprehensively explaining the ongoing processes.

The thesis has focused on the spatial relations of flexible production debates at the city and regional levels, and highlighted the transformation on/of space throughout the transition processes. By means of a comprehensive case study on the changes in the spatial organizations of Turkey and on locational distribution of industry in relation to flexible production processes, it has been emphasized that space has a major role in current economic and social changes, and furthermore, that the experienced transformations are quite related with the successes in the urban and spatial organizations. Within the study, the urban and regional level changes have been analyzed quantitatively, and the subjects such as growth rates, comparative priorities, and the development of spatial advantages have been tested by the use of shift-share analysis.

ÖZ

Bu tez temel olarak 1970'lerle birlikte gündeme giren, halen de bilimsel alanının birçok farklı disiplinine konu olan 'esnek üretim' tartışmalarıyla ilgilidir. Tartışma salt üretim süreçleri içinde yaşanan bir dizi değişim olarak değil, kapitalist sistemin bütünsel dönüşümü ile paralel olarak ele alınmış, kapitalizmin tarihsel bir sistem oluşuna ve aynı zamanda modern kapitalizmin 'endüstriyel üretim' ve 'endüstrileşme' süreçleriyle ilişkisine özel bir önem verilmiştir.

Bu perspektifte, esnek üretim tartışmalarının yaygın üç teorik yaklaşım, 'neo-Schumpeterian yaklaşım', 'esnek uzmanlaşma yaklaşımı' ve 'düzenlemeci okul yaklaşımı', ayrıntılı olarak incelenmiş, bu teorik yaklaşımların her birinin, halen netleşmemiş olan esneklik tartışmaları içerisinde önemli tespitlere ulaştığı fikri savunulmuştur. Çalışmanın genelinde ise, düzenlemeci okulun yaklaşımı yöntemsel araçlarıyla benimsenmiş, mevcut süreçleri bütünsel açıklama yönünde en yetkin yaklaşımın bu alanda geliştiği fikri öne çıkarılmıştır.

Esnek üretim tartışmalarının mekanla ilişkisine kent ve bölge ölçeğinde yoğunlaşılmış, yaşanan geçiş sürecinin mekanda yarattığı değişimler incelenmiştir. Ayrıca, Türkiye'de mekansal organizasyonlarda yaşanan değişimleri ve imalat sanayinin mekansal dağılımını esnek üretim süreçleriyle ilişkili olarak inceleyen geniş kapsamlı bir çalışmayla, mekanın mevcut ekonomik ve sosyal değişimlerin önemli bir parçası olduğu, dahası yaşanan dönüşümlerin kentsel ve mekansal organizasyonlardaki başarılarla eşit olduğu fikri uygulamalı olarak vurgulanmıştır. Bu çalışma sırasında kentsel ve bölgesel ölçekte yaşanan değişimler niceliksel olarak incelenmiş, shift-share analiz tekniği sayesinde büyüme hızları, karşılaştırmalı üstünlük ve mekansal avantajların gelişimi gibi alanlar test edilebilmiştir.

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Chapter 1
INTRODUCTION

The historical realities of the 1970s and the following years seem to be one of the most important periods of the world history. The most favored debate of the period, in which considerable rhetoric were originated from the economic depressions, political confusions, conflicts/clashes, changed/transformed, was on '*what is finished*' and on '*what has started*'. Within this period, it was declared that the hegemony of industrial production, classes, modernism, national-states, liberalism, socialism, and even capitalism and history had come to an end. On the contrary, knowledge, flexibility, deindustrialization, classless, post-bourgeois, post-economic society, neither socialist nor capitalist governing systems, postmodernism, globalization, neo-liberalism, and non capitalist capitalism were emphasized both as the formed features and as the signals of the newly started or the emerging 'new' era. But no one could develop a satisfactory claim on what is finished, and what is emerging. Among these discussions, the most prominently claimed were mostly under suspicion of 'ideological' interpretation.

At the outset, it would be better here to remind what has happened throughout this historical period: there have been drastic changes in mode of production and production technologies. The structural changes within the production were accompanied by the new organizations of production. The structure of labour and related societal organizations has been renewed. The international trade has been restructured towards a new dimension. Market relations, national economies, sectoral priorities have experienced considerable shifts. The development of information technologies, communication possibilities, and high-tech production units, all has been highlighted as the accelerating and sometimes the determining factors of these changes. Consequently, there has not been yet a common claim on what is finished and what is started. On the other hand, that there have been considerable changes within the procedural running of capitalism has been widely accepted.

The concept of '*flexible production*' has gone in front as being one of the most referenced within these debates. Though there exits no mutual understanding on flexible production, many scholars from varying disciplines have claimed on the transition from *the standardized mass production of Fordism* to *the demand based flexible production of post-Fordism*. Among many ambiguous redefinitions, the debates on flexible production have

been favored by means of the most fruitful efforts to explain the changes in production and economic and social relationships using by particular perspectives and methodologies.

Another area of interest highlighted within the flexible production debates has been *space*. The urban restructuring processes, changes in regional economies, and formation of new industrial regions and districts have all been important issues within the debates. It is possible to state that a considerable number of theses on flexible production have exceeded the state of being economic/social studies with particular spatial references, and has given rise to a conceiving of space as a major determinant of production and accumulation. Some approaches on flexible production perhaps have been developed deeply providing by the cases including industrial districts, localities, regions or cities.

1.1.The Definition of the Problem

"The debate on transition to flexible production", which is the label of this thesis, is based on the emphasis that different approaches to the transition to flexible production all create a **debate**. Although some studies claim that there exists a consensus in this area, there is truly one thing that there has emerged a change in production systems and capitalism, if to be considered as a base of consensus. Furthermore, there are fundamental differences on the definition of the changes experienced, and especially on the determination of what will take place in the future.

These diversifications gave rise to different methodologies and forms of interpretations. Thus, the first thing to be looked at in response to the claims on 'flexible production' is the original base that these claims stem from. Occasionally, as it is possible to see the interpretations that conceive flexible production as a set of reformations in manufacturing industry, but also there exist tendencies considering it in relation to the end of capitalism.

This thesis is underpinned by the comprehension that Turkey should not be isolated from these fundamental debates that has been based on transformations in world economy and production systems. A particular set of changes such as the increase in telecommunication possibilities, the restructuring of the international market, the deepening of dependency relations that directed almost all of the countries towards a vulnerable position directly affected by the current transition periods. The drastic changes that took place in the national economies and world economy following the Great Depression have immensely affected the socio-economic environment in Turkey, and

moreover how could an adaptation to these changes would be built has been identified. As it is reasonable that these processes and debates could not be evaluated in isolation from that of the world conjuncture, but also the specific conditions and changes should also be emphasized.

Throughout the process beginning with the establishment of the republic in 1923 up to the end of 1979 comprising the Great Depression, Turkey followed a variety of strategies and policies within varying cross sections. Between 1962 and 1979, the last section of this wide period, that has been dominated by, roughly saying, protectionist and state control centered policies; there has been a transition to planned economy and a rapid industrialization related with the import-substitution strategy – like in the similar countries of the world -. Consequently, Turkey entered the depression period in a formation labeled by some economists as a 'late-industrializing country'.

Following 1980, the economic restructuring, the changes in the production processes and regimes of accumulation experienced in the world have also affected Turkey. Within this period, the "Stabilization and Structural Adjustment Program" (SSAP) was put into practice and there was the effort on transition from the inwards economic structure to the liberal one based on exportation. While the export oriented industrialization strategies – especially successfully experienced by particular East Asian countries - were being carried out, there could not be a continuous procedural political-economic transition due to the self-genuine/specific conditions of the country such as the structure of the capital and labour, some faults and political struggles provided by the industrialization processes. On the other hand, there have been considerable changes and transformations within industrial production and spatial organizations.

It should be clarified that the changes of the post-1980 period have had deep effects on the industrial agglomeration centers and urban economies, and this situation has given rise to a set of changes within production processes and regional agglomeration areas. There has been experienced a process of transition by some industrial regions which are formed in 1970s, and a formation of spatial foci having both decreasing and increasing weights within the spatial-economic environment. It may be set forth that these changes; increasing uneven growth, shifts in spatial foci, sectoral differentiations within urban economies, and development of the industrial agglomeration centers should all be examined.

In spite of a drastic transformation processes in Turkey, the restructuring of the economic system, channels of accumulation, and the social structure are discussed rather in

the context of problems, but are rarely related with the world level transformations. Within the literature, there are relatively few studies focusing on the changes within the production processes and on the adjustments to such changes. Furthermore, the spatial dimension of the debate, which has been an important focus of interest within the Western literature, is considerably neglected, and except a few theses, there has been less concentration on the subject than it desires.

It should also be noted here that these limited studies has an important problem that is to be coped with. These studies, like as the ones in the world, have mostly focused on the manufacturing industry, and occasionally encompass the changes in the service and finance sectors. In some studies on Turkey, covering the statements to the extent that a new development model going frontally with its spatial context has emerged, considerable notice that there are few references to economic growth and competition, which are inevitably the integral parts of sector analyses and are the frequently cited areas within the Western literature.

As a consequence, having been backgrounded by a comprehensive review of the approaches to "flexible production", this thesis has a tendency in examining and discussing how this processes have been experienced in Turkey and its provinces.

1.2.The Aim of the Thesis

This thesis aims to define the right basis of the debates on transition to flexible production, to evaluate the most prominent approaches of these debates, and to analyze the changes experienced – whether really occurred or just claimed - in relation to flexible production processes in Turkey. Thus, this study is contributed to overcome the lacking on the areas such as transformation, inter-sectoral changes, local economic growth, and competition advantages for spaces. Without loosing these contexts, the main aim is to build a linkage between urban and regional processes and flexible production debates.

On the other hand, all these evaluations bring about many deep comments together with their contexts. As mentioned above, 'flexible production' is yet an area of immense discussion. Therefore, the thesis tries to pay attention to the task of comprehensiveness but also it avoids undervaluing the variety of provided approaches throughout the constitution of the methodology. At this point, there are some sub-aims to be mentioned here:

- To define the dominant system, that is the capitalism, within a historical comprehensiveness and a context of its procedural laws in order to understand flexible

production truly

- To identify and evaluate the most prominent approaches on flexible production.
- To point out the changes within the processes of city, region, and space, and to explain the importance of these changes within the debates.
- To evaluate the changes experienced in Turkey in relation to the determinants that make the flexible production debates up-to-date.
- To identify basic concepts and indicators of the debates with respect to the spatial analyses, to test them, and to reach to (not-pre-controlled/directed) results.

It would only be possible to evaluate the flexible production processes and to see their consequences in Turkey by means of achieving the sub-aims listed above. The methodology, mentioned in the third section of this chapter, is provided as to contribute to such a process.

1.3.The Context, Methodology, and Limits of the Thesis

The thesis has mainly two parts, which are comprised of subdivisions: the first is the body of the theoretical arguments, and second is the case study. Each part has different context and methodologies, and both are mutually formed to provide a general comprehensiveness throughout the whole thesis.

For the first part of the thesis, a widened literature overview within a variety of fields underpins the fundamental work. The matter of this overview is comprised of major books, periodicals, and Internet. Following this first task, there has been a constriction while both in defining the problem areas and in forming the general content, and a constitution of a thesis text that centers the fundamental debates and aims to represent them in a sufficient depth.

The case study, that is the second essential part, focuses on Turkey. Since this part contains the evaluations on the historical processes of the country as well as the particular technical analyses, it has a differing image than that of the first part. Furthermore, there has been a careful effort towards preserving the integrity of meaning by means of laying the derived definitions from the literature overview into the spatial analyses over the formed data set.

It would be proper here to give the basic outline of the study by the quite brief explanations of each chapter:

The first chapter; tries to give the introductory explanations of the thesis.

The second chapter; includes several evaluations made on capitalism. This chapter fundamentally discusses the thought that considers capitalism as a historical system functioning by its own procedural laws. Following this essential interpretation on what capitalism is, the definition of modern capitalism and its relation with industrial production and industrialization processes are made. This second section also encompasses the Fordist period of modern capitalism in a detailed manner, because this period resembles evidently the direct linkage between modern capitalism and industrialization. At the end of the chapter, particular major tendencies that have emerged as accompanying with the flexible production are described.

The third chapter evaluates the approaches in explaining the flexible production and post-Fordism. The chapter, based on three major approaches, fundamentally focuses on the basic underpinnings of each approach and the perspectives provided by each on Fordism and flexible production. A general evaluation is placed in the last section of the chapter, upon which the basic assumptions of thesis are constituted.

The fourth chapter involves the urban, regional, and spatial dimensions of the flexible production debates. The chapter overviews the changes in the spaces and places, and the shifts within the varying perspectives on these entities accompanying the unraveling of Fordist mode of accumulation. The changes in the conceiving of the concept of 'region' which is frequently subjected to the debates on flexible production, and the transformations experienced within the regional economies are the very concern of this chapter. Furthermore, one crucial emphasis was on the industrial regions and localities, and on the importance of them throughout the flexible production processes.

Chapter 5 is where the whole process of case study is given. There are two strategic points underpinning this case study:

- The case study should be built on the comprehension, content, and methodology encompassing all three highlighted areas of interest that the previous chapters dealt with.
- The case study should be capable of explaining the changes pointed out by the flexible production indicators, as well as of clarifying the linkages/connections of changes between the world economy and the production systems.

In order to respond to these identified requirements, the case study has a wider perspective covering a broad array of subjects, data, and knowledge. At the outset of this chapter, Turkey's economic formation and the industrialization processes that took place within the country in pre-1980 periods, and hence the very condition of the country are

brought up. The post-1980 Stabilization and Structural Adjustment Program (SSAP) practices and the relationship between the program and the changes experienced in global scope are all evaluated within this chapter. What follows is the set of analyses on the manufacturing industry. In this section of the chapter:

- The changes in post-1980 period in regional structure and urbanization processes are interpreted by the use of several analyses and evaluations.
- The post-1980 changes in the industrial agglomeration regions of the 1970s are analyzed, and the relations between these changes and flexible production systems are explored.
- The possibilities and capabilities of flexible production provided by the manufacturing industries demanded by the provinces are analyzed, and evaluated within the context of economic growth, competition, and spatial advantages.

It should be noted here that dealing with the flexible production debates and their spatial implications, the case study on manufacturing industry in Turkey is established in relation to former studies made in both national and international level. Thus, some conceptual and empirical inputs are defined by means of these studies:

- General perspective is developed by means of 'regulation approach' because of its considerable power of understanding on the production, political, and economic dimensions.
- The methodology is established via the evaluations on the related studies on Turkey and other countries, which are examined with respect to methods, techniques and data used.
- The analysis techniques used are developed with references to the former major studies overviewed such as the studies of Sforzi (1988), Eraydın (1992), Yunusoğlu (1995) Cho (1997), Erendil (1998), and Pınarcıoğlu (2000) because their studies are capable to respond the thesis' requirements.

Consequently, the methodology included in the case study is fundamentally based on the testing of the general comprehension and interpretation process by the use of some quantitative analyses. Therefore, the case study is characterized both by its description of particular transformations within varying fields and by bringing about holistic outcomes via the quantitative techniques.

There is a large amount of techniques used within the flexible production debates. The techniques providing data for a general interpretation, such as raw count, percentage

and calculating growth rate, are also employed within this case study. In addition, as a means of providing data for an interpretation on economic growth, local competitiveness, adjustment capabilities, and investment conditions, which are of the crucial integral parts of the flexible production debates within the manufacturing industry, the technique of Shift Share Analysis is also preferred.

This case study adopts the most basic version of the model. According to it, the industrial shift-share analysis is actually a descriptive method. The main idea is the determination of '*local (regional/urban) growth*' depending on the three factors (see Yunusoğlu, 1995 and Knudsen, 2000):

1. the growth of the reference economy (country) itself in which it takes place,
2. the growth of the regional/urban industries within the system,
3. the spatial advantages of the region/city within the system compared with other regions/cities.

The method is also used with respect to three components, in parallel to above factors:

1. *National Growth Component* (regional share related with national growth)
2. *Industrial Mix (Shift) Component* (structural effect)
3. *Competitive Growth Component* (total regional shift)

The '*national growth component'* shows the effects on the sector of the local economy: if sector *j* in location *i* exactly matches the national trend. The comparison of the value in a certain evaluation criteria in a region/city is related to the development of the country, that is, a comparison of an increase in manufacturing employment of a region/city and the national growth. Evaluation of this component reveals the existing positive or negative momentum.

The *"industrial mix component"* calculates the change in the sector *j* that can be attributed to the country's industrial mix. Thus, it is a measure of the change in the selected indicator determined by the types of industry located in the country. If the region/city has a 'favorable' mix, comprising faster growing industries, it will experience faster growth for the selected indicator than the rest of the economy.

The *"competitive growth component"* defines the competitive and locational advantages of the sector. It is used to evaluate the capability of structural adjustment and improvement in region/city with respect to the reach to the levels of faster growth and more applied investment.

The shift share analysis is applied by employment, GDP and value-added values.

By the way, the regions and provinces in Turkey are classified according to the indicators of structural and flexible transformation in manufacturing industry.

With this respect, it should be noted that there are some problems which underpin the context of the study. These can be classified in two groups: the first is related to common debates which are developed for the advanced capitalist countries; and the second is related to the lack of studies on Turkey. First group of problems causes general limits:

- The studies on transition do rather focus on the developed capitalist countries and but less on the less developed or late industrializing countries of the Third World.
- The Western countries present a relatively more stable capitalist development and thus provide the opportunity with respect to the standardization of models and approaches.
- In the less developed countries, there is rather the effectiveness of internal factors stemming from the social and economic originalities, than that of the external, especially the political, factors related with the dependency processes.

Second group of problems causes spatial limits:

- It could be unfortunate to reach a fresh and valid study on which the regional studies of the case study would be based.
- The statistics on the manufacturing industry are not as deepened and varied as the case study required. Furthermore, there has been a currency problem within the most of the data used.

Consequently, this thesis tries to respond to the requirements identified within the aims, as well as to construct a theoretical and analytical unity covering the whole of the thesis.

Chapter 2

ON CAPITALISM:
A HISTORICAL AND INDUSTRIAL SYSTEM

"The history of industrialism has always been a continuing struggle… against the element of 'animality' in man. It has been an uninterrupted, often painful and bloody process of subjugating natural (i.e. animal and primitive) instincts to new, more complex and rigid norms and habits of order, exactitude and precision which can make possible the increasingly complex forms of collective life which are the necessary consequence of industrial development."
(Gramsci, 1971 cited in Elam, 1990: 56)

The underlying reason for the considerably growing importance of flexible production and its becoming so widespread is that the changes of the mode of production and the social relationships are considered to be directly related to the capitalist system as a whole. It has become a quite widespread vision that especially the transformations in the production processes – for instance within the 1920-70 period - could not be limited to the efforts inclining just towards the more efficient and profitable, and that the experienced changes and transformations has pointed to a comprehensive restructuring encompassing the worldwide economic and social change, and to a new formation of the societies that are defined by their labour organizations, technological developments and communication potentials.

At this point, it should be noted that especially what the crises of the post-1970 period and the disentanglements and changes explained via particular local samples corresponding to the whole system of capitalism have become an important debate. It is notable that almost none of the debates on flexible production or post-Fordism could be excluded from the changes within general, macro, processes of economic, social and spatial structures. Hence it is crucial to interpret the flexible production, or post-Fordism, debate within the modern capitalist progress.

The definition of the capitalist system and its determining factors is to provide the possibility of interpreting the flexibility arguments explained in the following chapters.

This chapter is comprised of two general parts. The former is fundamentally based on the emphasis that capitalism has a historical continuity and this could be interpreted by particular basic contexts/processes forming a system. The historisicity of the system is

explained by the concepts of 'mode of production', 'capital accumulation processes', 'class conflicts', and 'crisis'. The totality of the defined basic relationships aims at interpreting the three features of capitalism set forth by Harvey:

- "Capitalism is growth-oriented. A steady rate of growth is essential for the health of capitalist economic system, since it is only through growth that profits can be assured and the accumulation of capital be sustained… (Thus) Crisis is then defined as lack of growth
- Growth in real values rests on the exploitation of living labour in production… Capitalism is founded, in short, on a class relation between capital and labour.
- Capitalism is necessarily technologically and organizationally dynamic… But organizational and technological change also play a key role in modifying the dynamics of class struggle, waged from both sides, in the realm of labour markets and labour control." (Harvey, 1989: 180)

The latter part employs a reference to the industrial dimension of the 'modern capitalism', which is considered as covering the past two centuries. This period, cited by most of the scholars, for instance Peet (1991) and Amin, S. (1999a, 1999b and 2000), as the completed phase – such completion refers to a stability and a relative decrease in the conflicts mentioned in the first part - of capitalism, is a process parallel to the industrial growth and its provided/necessitated set of regulations. As a consequence, the importance of industrial development and its transforming power within capitalism are placed within this section of the chapter. What follows is an explanation the period of Fordism and the debates on flexible production.

The relatively bulky content and the wider basis of the argument within the latter part is due to its inclusion of flexible production and the Fordist period as the main fields of interest. To explain the most consistent industrially centered growing modern capitalism by its mutually understanding constitutive contexts is what this chapter tries to clarify. Furthermore, within the following chapter, a detailed comprehension on both the flexible production based arguments, and the differing evaluations on Fordism are laid out.

2.1. Capitalism As a Historical System

The interpretation of capitalism as a historical system is based on the traditional Marxist approach. Within this approach, Marx explains all material bases in relation to the historical foundations of social actions as which is known 'historical materialism'. The concepts of *mode of production*, *accumulation of capital*, *class struggle*, and *crisis* are generally defined on the basis of his historical materialism.

The main emphasis is on the fact that capitalism has not some prior direction

towards which all history tends. It came about through the dissolution of previous societies and the recombination of their elements in new forms. In addition, capitalism is the synthetic result of internal societal dissolution and external plunder and trade. Thus, a transformational change comes from the contradictions internal to a entity and the external relations one thing and another (Peet, 1991: 107-9). And each transformation process has its own special tendencies based on crisis, recession and expansion (Amin, S., 1999a: 14).

Historical trends are represented by defined periods of capitalist development, such as period of mercantilism, period of traditional capitalism, postwar period, and current period (Amin, S., 1999b: 13-5). Followers of Marx use the methodology of periodical view, though with differing periodization intervals. It can be seen that each scholar defines his/her own breaking points; thus, it is almost impossible to define apparent intervals common to all. Although reaching the consensus is not so important because the studies do not need specific times and braking points, but definitely need an historical view in order to understand capitalist system. Marxist approach is one of the approaches which provides such a comprehension.

The evaluation of flexible production depends on the understanding of and positioning within the capitalist system. And this study claims that such an understanding of the capitalist system can be provided only by means of a historical perspective. The debate on the transition to flexible production could not be examined by static approaches in which the main focus only changes in relation to production types or society. According to Peet (1991), it consists of dissolution and recombination processes; thus the period following the year of 1972 coupled with the signs of a new mode of production should be examined in a historical perspective. In this section, in order to constitute our historical view, three Marxian terms are explained: *mode of production, accumulation of capital,* and *crisis dialect of the capitalist system.* [1]

2.1.1. The Mode of Production

The concept of the *mode of production* is a key concept in order to understand the phenomenon of capitalism. This concept was firstly used by German philosopher and economist Karl Marx. Marx believed that social development has its own conditions (procedural laws) and capitalist societies are not frizzed, they are, on the contrary, inclined

[1] It is impossible to summarize the framework of Marxist theory here. In this section, it is only tried to explain basic features that allow establishing a total view in order to understand transition to flexible production which is examined in the later parts.

to change (Schellenberg, 1976: 15). Thus, changes, or transformations, in capitalist system depend on two fundamental factors: production and labour relations (society). The regulation of both the production and society does not appear coincidentally, in contrast it is determined by a series of special regulator, by the so-called 'mode of production'.

The Marxian definition of mode of production consists of two elements: first, the *forces of production*, the technology underpinning the production process; and second, the *social relations of production*, the legal system of property rights and trade union legislation that govern the system of production (Knox and Pinch, 2000: 30). Peet supports this context of mode of production, but adds the importance of both the organization of workers and applied technologies. In addition, he highlights that it is an abstract system of social relations organizing the forces of production throughout the transformation of the nature. Furthermore, any capitalist mode of production has two social objectives. These are "…the production of material goods used to reproduce labour power; and a surplus of products, used partly for investment in new means of production, and partly to support and protect the life-style of the rich and famous" (Peet, 1991: 62).

> The forms of consumption and surplus socially determine the reproduction process. "Social structures interact with production processes by determining the rules for the appropriation distribution, and uses of surplus. These rules constitute modes of production, and these modes define social relationships of production, determining the existence of social classes that become constituted as such classes through their historical practice. The structural principal under which surplus is appropriated and controlled characterizes a mode of production" (Castells, 1997: 16).

Marx, in fact, uses the concept of mode of production in different ways. He generally means "…the characteristic form of the labour process under the class relations of capitalism (including the production of surplus value), presuming production of commodities for exchange" (Harvey, 1982: 25). He sometimes uses the concept including production, exchange, distribution and consumption relations, institutional-juridical-administrative arrangements, political organizations, ideology, and social reproduction. It should be noted that this wide context in fact do not cause confusion, rather the main idea is clear: Capitalism is not just the ownership of wealth; it is a set of social relations, or institutional arrangements that affect the relationships between two classes that are inevitably in conflict. Moreover, it enables the owners of capital to command labour to produce further wealth (Knox and Pinch, 2000: 30). More clearly, under capitalism, "…the separation between producers and their means of production, the commodification of labour, and the private ownership of means of production on the basis of the control of

capital (commodified surplus), determined the basic principle appropriation and distribution of surplus by capitalists, although who is (are) the capitalist class(es) is a matter of social inquiry in each historical context, rather than an abstract category." (Castells, 1997: 16)

Furthermore, capitalist mode of production is closely related to technological ensembles (groups of new, profitable, and compatible technologies) that are driving forces behind the capitalist dynamic (Knudsen and Boggs, 1996: 3). In this context, the most clarified explanation comes from Manuel Castells, stating that it is sure that technology does not determine society.

> "Neither does society script the course of technological change, since many factors, including individual inventiveness and entrepreneurialism, intervene in the process of scientific discovery, technological innovation, and social applications, so that the final outcome depends on a complex pattern of interaction. [*Technology does not determine society: it embodies it. But neither does society determine technological innovation: it uses it*] (footnote of the author). Indeed, the dilemma of technology is society, and society cannot be understood or represent without its technological tools." (Castells, 1997: 5)

2.1.2. The Accumulation of Capital, Classes, and Crisis

The concept of the *accumulation of capital* is used often for referring to the processes by which capital is acquired. The concept also refers to a system in which the ownership of wealth and property is highly concentrated and not just to a system based on profit making (Knox and Pinch, 2000: 392). The important thing is that the expansion of the capitalist mode of production is realized through the process of accumulation. Accumulation of capital is the social process of conversion of capital into surplus value and of surplus value into capital on an expanded scale (Castells, 1980: 47).

The accumulation of capital is controlled by the division of labour which is controlled by the production of goods and services to be sold in the market. Such processes aim to realize the maximum profit (Hoogvelt, 1997: 15). Thus, capitalism has to achieve two objects in order to survive: first, the creation of new ways to develop to provide reaching larger scales exceeding the previous ones (see section 2.1.3. in this study); and second, to decrease the tension between capital and labour to prevent the emergence of class struggle which may threaten the future of the system.

Class relations are the most effective factor of shaping capitalist accumulation. They are effective not only for accumulation processes but also for the mode of production, and for sure, of society. It is possible to state basically that social relations

have been altered by means of a reorganization of labour processes (Castells and Henderson, 1987: 1). Capital is a social relationship, and therefore the process of capitalist accumulation is a process of class struggle (Castells, 1980: 75). According to Castells, the main contradiction in a capitalist society, and in the process of capital accumulation, is the contradiction between capital and labour. The nature of capitalism has an insoluble contradiction called as *class struggle* the latter appears in the contradictory relationships existing in all processes of production in societies, especially the contradiction arising between producers and organizers of production. Thus, societies are produced, structured, shaped, and transformed by historically defined processes of class struggle. Although societies are much complex and although there are too much ideological propaganda claiming the end of the class struggle, this basic contradiction is still a key for explaining the world (Castells, 1980: 43-4). Peet's words (1991: 106) support Castell's thoughts, and add a note to the arguments about origins of the capitalist system. If the class relationships and the class struggles cause internal changes; and trade and its consequences cause external changes, thus the dialectics between internal and external changes provide to discover the exact origins of the capitalist system.

Harvey provides on analysis to expand these arguments. For Harvey, productive growth requires improvements in labour productivity and in forms of industrial organization, communication, exchange, and distribution. These improvements cause increasing division of labour and specialization of function. The technical and organizational basis of society changes, thus it creates the potential for social differentiation. The distinction between manual and intellectual work, for example, may be reflected in the social distinction between blue-collar and white-collar workers. The division of labour and specialization of function may part the proletariat and the capitalist class into distinct strata. Social conflict may take place between strata and thus replace class struggle in the Marxian sense as the guiding principle of social differentiation (Harvey, 1985: 113).

The relationships among the mode of production, the accumulation of capital, and the class struggle can only go free of problems by means of driving force of the profit of capital (history of capitalism demonstrates that this is not possible). Thus, the surplus value must be appropriated after reproducing constant and variable capital and after using the value required for the reproduction of social relationships of production. Because of the necessity of social reproduction, the limit to capitalist accumulation comes from the general crisis of the social relationships (Castells, 1980: 47-8). To produce adequate profit

to allow new investments and reproducing society may create opportunity to solve all problems. In other words, the main requirement for survival of the capitalist system does not permit the falling rates of profit, which is whereas limited to labour power including class struggle and development of productive forces by means of increasing the technical composition of capital. These limits and tendencies force the system towards 'overaccumulation' and 'crisis'. That is the capitalist system does not escape from economic crisis not only in advanced capitalist countries but also at the international level (Castells, 1980: 75-6). Although some economists claim that this process is a problem for only advanced capitalist countries, the crisis actually becomes a world crisis because of international relations of capital and market (see section 2.1.3. in this study).

It is commonly accepted that the world has been in conditions of crisis represented in many economic signs. Harvey claims that the underlying the logic of capitalist accumulation and its crisis tendencies remain same. He fundamentally asks whether the closest crisis means the birth of a new regime of accumulation that includes the contradictions of capitalism for the next generation, or these changes mean constituting a transitional moment of grumbling crisis for the late twentieth century (Harvey, 1989: 189). An answer to this important question is taken up in the following chapters.

2.1.3. The Relationship Between Capitalism and Crisis

The core idea of the relationship between capitalism and crisis lies at the heart of the fact that capitalist crisis is dialectically related to capitalist development. Because capitalist development has to produce the sources of reproduction for the survival of capital accumulation: it must reach greater development trend than prior expansion following each economic stagnation period (see Amin, S., 1999a; 1999b; and 2000).

According to Amin, there is no society which has the capability of expanding permanently and limitlessly. An expansion of each society thus has to pass under periods of expansion, stagnation, and even recession. And each point, or period, that causes to change tendency of development is named as the period of crisis (Amin, S., 1999a: 13).

Capitalism reached to its completed form by means of industrial revolution that started in the early 1800s. After that time, the basic contradiction that lies at the core of capitalism is to produce more than what to be consumed. Thus, threat of relative stagnation is chronic illness of capitalism, which always leads to the disequilibrium in the economic system. And each expansion period produces not only crisis and disequilibrium, but also

specific conditions of them (Amin, S., 1999a: 14).

The regulationist approach (for this approach and its specific concepts, see chapter 3) defines three types of crisis: *Micro crisis, conjectural crisis,* and *structural crisis*. Micro crisis may be brought about at each level of the accumulation process. This can be theoretically ignored. Conjectural crisis is based on the circles of economy. It can be regulated by minor interference. And structural crisis is brought about as being coupled with the collapsing relationship between regime of accumulation and mode of regulation. A new regime of accumulation in order to survive of the future of the capitalist system must be created (Tickell and Peck, 1992: 192).

On the other hand, crisis can be simply classified as *short-run crisis* and *long-term crisis – disequilibrium* - (Amin, S. 1999a, 1999b, and 2000; Knudsen and Boggs, 1996; Harvey, 1982; Castells, 1980). Short-run crisis is based on the problems accrued in accumulation process. It generally takes a few years. Long-term disequilibrium, which is called in some sources as *misregulation* or *Kondratiev* (for more detailed analysis of these terms see chapter 3 in this study), is based on economic (production, investment, price, income, distribution, etc.) and social (consumption, division of labour, geographical changes, etc.) statutes of the capitalist system, and is explained by *long-wave*. Amin defines the long-waves of capitalism as the periods of;

- 1790-1814 expansion and 1814-1848 stagnation
- 1848-1872 expansion and 1872-1893 stagnation
- 1893-1914 expansion and 1914-1945 stagnation
- 1945-1968 expansion and 1968-…… stagnation (Amin, S., 1999a: 18).

Each expansion period is defined by two factors; first, technological innovations and second, political development by means of expansion of the market.

- 1789 French Revolution and first industrial revolution
- The building a complete railway thanks to Italian-German cooperation
- The colonialist impacts
- The emergence emperor of automobile, postwar rebuilding in Europe and Japan, and modernization. (Amin, S., 1999a: 19)

Amin states that these periods may be explained by the determination of economic circles, and that may be true, but are definitely incomplete. The social realities, whereas, are not dependent on the strict models. On the other hand, this model represents a fact that capitalism could survive by means of greater economic expansion periods than being the one just before. Thus, capitalism must reach growth more rapidly, and overcome the prior

growth in each expansion period. (Amin, S., 1999a: 19-24)

At least after 1972, the world economy has been undergoing a process of a global restructuring that redefines capital-labour relationships while furthering the asymmetrical interdependency of economic functions across national boundaries. There are now many social and political conflicts with deep crisis. It has some common features that allow us to consider it as a global process that has affected the capitalist world system at least since early 1970s (Castells and Henderson, 1987). Should this be seen as an emergence of a new model of accumulation, or only as an adaptation to changes in production and market? This question is well related to the flexible production debates, which are examined in the following chapters.

2.2. Modern Capitalism As an Industrial System

It is essentially stated that this section of the study offers the answers to the questions, such as 'why industry is so important?' and 'why industrialization is so important?' Afterwards, there is an examination of the Fordist era so as to bring about the historical relationships between industrialization processes and modern capitalist hitherto.

The history of modern capitalism reveals that manufacturing industry has been closely linked with economic growth. The countries, which have the wealthy conditions and better living standards, have achieved them by means of the increase in industrial products. In addition, in modern capitalist period, not only industry has become the engine of growth, but also industrialization has become the engine of the structural transformations, which have brought about in the crisis periods and created new accumulation regimes.

Fordism, symbolically referring to the period between 1911 and 1972, is to be considered as the most important period of the capitalist system. During this era, many changes took place, such as the ones on the way people work, the way industrial production proceed, the organization of society, and so on. The ways of production and consumption were particularly coordinated.

The end of the 20th century has witnesses with many crises, such as the oil price shock of the 1970s and the foreign-debt crisis, and these crises have been related with the Fordist accumulation processes. Also, the emerging flexible production debates are concerned with these periods of crisis, thus the last part of this section provides an evaluation of the flexible production.

2.2.1. Industry As the Engine of Economic Growth

For this thesis, it is of special importance to answer the question why industry is so important. To begin with an interesting note, it should be marked that all less developed and underdeveloped countries have had weak manufacturing structure. In other words, they have never had an industrial revolution or created productive manufacturing differing from developed countries. Thus, it can be clearly seen that people living in these countries – three quarter of world's population (Todaro, 1994: 6) – regularly confront poverty and experience lower levels of healthy living conditions.

What is industry? Peet's (1991: 145) answer to this question is notable: "Industry refers to the final processing of natural materials into material objects which directly satisfy needs (consumption goods) and provide means of further production (investment goods)". According to him, industrial manufacturing more efficiently determines the human actions than other production ways such as agriculture or mining do. Todaro approaching from the counter side confirms this idea: "It is known that the most underdeveloped countries' leading sector is agriculture in economic structure. Social and cultural structure, thus, takes on a shape under the agrarian domination" (Todaro, 1994: 36). Furthermore, it is known that developing strategies in less developed countries are determined by 'degree of interdependency among its *primary*, *secondary* and *tertiary industrial sectors*.' *Primary* sector refers to agriculture, forestry and fishing; *secondary* refers to manufacturing; and *tertiary* refers to commerce, finance, trade, transport and services. As a considerable example in reaching a successful developing trend based on secondary sector the following statement may be cited here: "Taiwan, South Korea, Hong Kong, and Singapore greatly accelerated the growth of their manufacturing output and are rapidly becoming industrialized states" (Todaro, 1994: 36).

Although it is not the only indicator for defining development levels of countries, GDP is one, and most referred, of the economic indicators. Increasing GDP values of manufacturing actually provides rapid development rather than agricultural value growths. Furthermore, "…economic development has also been typically seen in terms of the planned alteration of structure of production and employment so that agriculture's share of both declines and that of the manufacturing and service industries increases" (Todaro, 1994: 14). This claim does not prove the idea that manufacturing industry is more important than agriculture. It implies raising share of the manufacturing and services industries in total economy can create more functional growth rather than agriculture.

"These principal economic measures of development (in fact) have often been supplemented by causal reference to noneconomic social indicators: gains in literacy, schooling, health conditions and services, and provision of housing for instance" (Todaro, 1994: 14). Manufacturing industry is commonly accepted as the engine of the economy providing not only GDP growth but also basic human needs, social living standards, urbanization, social protection and so on.

According to World Bank Development Report, the vast majorities of people in Third World countries (for classification, see Appendix A), including whole less developed and underdeveloped nations, live and work in rural areas. Over 65% are rurally based, compared to less than 27% in economically developed countries. Similarly, 62% of the labour force is engaged in agriculture, compared to only 7% in developed nations. Agriculture contributes about 20% of the GNP of less developed nations but only 3% of the GNP of developed nations. While developed countries establish their economies producing manufacturing goods, less developed countries focus on the exportation of primary commodities. Although the rate of primary commodities export is 72%, the rate of manufactures export is 28% in less developed countries out of Asian countries, in developed countries, the rate of primary commodities is 19%, and the rate of manufactures export is 81%.

Peet highlights that the growth rates can be statistically increased at least 10 percent in a year by support by manufacturing industry if productivity grows at rates 5 percent to 10 percent in a year as to adopt new technologies in a more organized structure:

> "An economy can therefore be transformed, in terms of structure and productivity, by industrial development over a period of twenty to thirty years… Industry has the potential to spread material benefits evenly among the mass of human participant. Large numbers of workers live in urban-industrial areas, sharing essentially similar productive and reproductive conditions. Industrial labour is more collective organized and more active in the pursuit of its share of the product than any other mass of workers in history. As a result, industry is inextricably linked with high levels of economic development." (Peet, 1991: 145)

The inextricable link between industry and development may be considered as similar to *equating industry with development*. Indeed, many authors commonly agree with the use of the concept of *industrialized* in place of *developed*, and of *non-industrialized* in place of *less developed* within their classification of the countries (Ersoy, 2001: 33). This may be taken as a representation to the fact that the manufacturing industry may be conceived as the *engine of growth* because "…it is characterized by dynamics of increasing returns to scale (the positive relationship between the growth of output and the growth of

productivity).” Nixson (1994), referring to Weiss (1988), tries to ratify this statement, that “…growth of the manufacturing sector raises productivity not just in the sector itself, through an extension of the division of labour, but also in the major sectors” (Nixson, 1994: 6-7).

A final statement, referring to Sutcliffe’s words, may be given here: “No major country has yet become rich without having become industrialized… Greater wealth and better living standards under any political system are closely connected with industrialization” (see Peet, 1991: 146).

2.2.2. Industrialization As the Engine of Transformations

Following the question of ‘why industry is so important?’ the second question emerges: ‘Why industrialization is so important?’ This question should be put on the agenda because of the fact that the concept of industrialization has been a fundamental topic in many economic studies for almost three centuries, at least after the publication of the very popular book of Adam Smith in 1719, named as ‘*Wealth of Nations*’. That being industrial production as the most efficient means of economic growth, stated within the above section, does not explain why it has been a popular topic within many studies. This is in fact closely related to the concepts which have been mentioned in the former sections of this chapter.

In order to clarify why industrialization is so important, we could begin with Elam’s questions: “Why is that the unavoidable chaos, instability and conflict in every structural crisis of capitalism does not prevail? How is social cohesion and economic stability achieved and maintained despite the unremitting pressures of disrupting cleavages?” (Elam, 1990: 56). The most valid answers to these questions have been offered by *regulation school* whose approach and methodology are examined in the following chapter (section 3.3.).

Referring to the description placed in the previous part of this chapter, it may be stated that capitalism is a system which has to grow/expand continuously and limitlessly. Thus, this tendency creates many conflicts that cause the short-term and long-wave crises. As modern capitalism (*modern capitalism* and *industrial capitalism* are often used interchangeably) broadly covers the past two centuries, it has been able to overcome all structural crises by means of increasing industrial production. In depression periods, the provided means to overcome the crises, such as ‘first industrial revolution’, ‘building the

widespread railway system in Europe', or 'emergence of Fordist mass production', all created huge increase in industrial production, expansion of newly produced goods in markets and spread out the channels of accumulation.

This fact partly provides answers to Elam's questions. Certainly capitalist system has many regulators to overcome the emerging bottlenecks in the crisis periods. On the other hand, last two centuries indicate that the system has found ways to cope with structural problems by means of developing industrial accumulation channels that can be called as 'industrialization process'. In other words; as mentioned above, in modern capitalist period, not only industry has become the engine of growth, but also industrialization has become the engine of the structural transformations which occurred in the crisis periods and created new accumulation regimes.

Finally, it should be noted that capitalism reached the most stable period, called as the '*Golden Age*', thanks to Fordism, and this is not easily defined as only a production system. What it is and what it includes will be explained in detail in the following sections.

2.2.3. Fordism

Although the concept of *Fordism* has been developed by a group of French Marxians, who are known as *regulation school* theorists (see chapter 3), "the origins of this concept can be traced back to the Italian communist Gramsci" (Knox & Pinch, 1982: 32). Gramsci noted the "*Americanism* and *Fordism* as the biggest collective effort to date to create, with unprecedented speed, and with a consciousness of purpose unmatched in history, a new type of worker and a new type of man" (Gramsci, 1971 cited in Harvey, 1989: 126). This view of Gramsci, which is based on *new type of worker*, is the origin of the *Fordism*. Today Fordism, as a mode of production, is not only based on this new type of worker but also on the enlarged types of society, production, governments, geography, organizations, world politics, etc.

According to Knox and Pinch, Fordism can be summarized within at least three different historical changes: "…first, changes in the way people work; second, changes in the way industrial production is structured; and third, changes in the organization of society as whole - in particular the ways in production and consumption are coordinated" (Knox and Pinch, 2000: 32). It is possible to say that Fordism actually consists of a wide socio-historical context.

In relation to this wide context, Fordism can be defined in many different ways, for

example, Allen describes the Fordism "…as a way of working and a way of organizing industry is associated with the factory system developed in the early part of the twentieth century by Henry Ford in Detroit to mass produce automobiles" (Allen, 1992 cited in Knox and Pinch, 2000: 32). Knudsen and Boggs additionally point to the attributes of Fordist production, or Fordism, as the fact that "…given large and rapidly expanding mass markets that enable mass production, firms able to harness huge internal economies of scale that allow correspondingly large investment in fixed-process technologies" (Knudsen and Boggs, 1996: 6). Similarly but more broadly, Lipietz defines his term "*Fordist compromise*" on the basis of mass production, growing polarization between deskilled operatives and mental labours, increasing mechanization, increasing productivity, stability in firms' profitability with plant used at full capacity, and full employment (Lipietz, 1992: 6). Moreover, Rupert's (1997) description conceives Fordism, in relation to mass production, as involving high output of standardized goods while using specialized machinery and less skilled labour. Additionally, he highlights "…in return for a huge increase in fixed costs (relative to variable costs), manufacturers were able to take advantage of economies of scale, spread fixed costs over vast production runs, and suppress unit costs to historically unprecedented levels" (Rupert, 1997: 59). Fordism, what's more, is fundamentally the Americanism that is based on American hegemony, with hierarchical organizations and vertical integrations of institutions, all over the world. The main reference of this system is *the Bretton Woods system*, which is one of the most important foundations of the Fordist world order by means of American hegemony (Rupert, 1996). On the other hand, Eraydın points out a technical fact that the emergence and the raise of Fordist production in manufacturing determined all other sectors, and it was, perhaps have been, an efficient factor to increase the value added (Eraydın, 1992: 15).

In sum, Fordism can be described as the production system that consists of the *mass production* on the assembly line model using special purpose machinery, and mainly *unskilled labour* with a division of labour based on *fragmentation of tasks*. In addition, Fordism implied a definite type of society; an *industrial society* based on *homogeneous, male, full-time working class* concentrated in large plants and in *large industrial cities*. The concentration of labour in large plants and a full-employed economy had promoted the central role of the *unions and workers' parties* in politics. The Fordist era is characterized by the dominances of *mass markets* that were dominated by few *large firms* (*monopoly market* and *vertically integrated firms*), and by long runs of *standardized goods*; politically *American hegemony* (neo-liberalism) of the world by means of regulators of the Bretton

Woods system.

2.2.3.1. Taylorism

Harvey claims that the so-called innovations of Henry Ford were, in fact, not original. To Harvey, Ford succeeded in using, and developing, well-established trends. Furthermore, "he likewise did little more than rationalize old technologies and a pre-existing detail division of labour, through by following the work to a stationary worker he achieved dramatic gains in productivity" (Harvey, 1989: 125). When Henry Ford developed the Fordist factory system, he in fact borrowed main ideas from an American engineer, Frederick W. Taylor. Taylor's well-known book, *Principles of Scientific Management* published in 1911, established the basis of Ford's systems. In his book, Taylor "…described how labour productivity could be radically increased by breaking down each labour process into component motions and organizing fragmented work tasks according to rigorous standards of time and motion study" (Harvey, 1989: 125-6). Knox and Pinch summarized Taylor's principles, an possibly to be called as *Taylorism*, by three matters:

- All work tasks should be simplified as much as possible.
- There should be a clear divide between physical and mental labour with all planning and organization undertaken by managers.
- 'Time and motion' studies should be used to identify the most efficient working practices. (Knox and Pinch, 2000: 33)

According to Lipietz (1992), Taylorism can be seen as the rationalization of production. It is based on separation of the *ideas people* and organizers of production (engineers, and organization and maintenance staff) and the *operatives* carrying out production. Henry Ford integrated this rationalization with the moving assembly line, and developed the model based on the fact that "…each worker on the assembly line did a relatively simple task, assisted by specialized machines" (Lipietz, 1992: 4). This approach enhanced productivity to such an extent that Henry Ford was able to reduce the cost of his car production almost a half, while at the same time paying his workers $5 a day, a sum that was originally twice the average industrial wage (Knox and Pinch, 2000: 33).

Lipietz claims: "when Taylor and his followers introduces these principles, the aim was in fact to generalize the 'best practice' of craft and specialized workers, while depriving them of the prime position which their monopoly of skills gave them in the

workplace" (Lipietz, 1992: 4). Ford actually achieved to reach more than Taylor could envisage. Harvey sheds a bright light at this point: "What ultimately separates Fordism and Taylorism was Ford's vision, his explicit recognition that mass production meant mass consumption, a new system of reproduction of labour power, a new politics of labour control and management, a new aesthetics and psychology, in short, a new kind of rationalized, modernist, and populist democratic society" (Harvey, 1989: 126).

2.2.3.2. Postwar Period and Keynesianism

Harvey states "the symbolic initiation date of Fordism must surely be 1914, when Henry Ford introduced his five-dollar, eight-hour day as recompense for workers manning the automated car-assembly line he had established the year before at Dearborn, Michigan" (Harvey, 1989: 125). It is possible to say that the world did not change after this symbolic time, whereas after World War II, it actually did. According to Lipietz, to understand Fordism and today, the postwar period must be carefully analyzed: "The prolonged boom of this era amounted to a real golden age of capitalism… It was not a paradise, but at least one of the ways, perhaps *the way*, to paradise" (Lipietz, 1992: 1).

Although the main target of the Fordist approach was to reach more labour productivity in consumption goods sectors and to decrease the costs of production, Fordist systems additionally created the consumers who have enough gain and enough time to consume (remember Ford's formula: 5$ for eight-hour per a day!). While Rupert asserts "the products of mass production could potentially be made available to masses of people who for the first time could afford to become consumers" (Rupert, 1997: 60), Harvey explains this situation as follows:

> "Ford believed that the new kind of society could be built simply through the proper application of corporate power. The purpose the 'five-dollar', 'eight-hour' day was only in part to secure worker compliance with the discipline required to work the highly productive assembly-line system. It was coincidentally meant to provide workers with sufficient income and leisure time to consume the mass-produced products the corporations were about to turn out in ever vaster quantities" (Harvey, 1989: 126).

In the postwar period, this formula expanded to almost all advanced capitalist countries. Furthermore, the Third World (less developed or underdeveloped) countries were regulated under the same perspective. The process not only provided raising capital under the control of few big firms, but also caused the emergence of a *new accumulation regime*. When Fordist characteristics got dominated all over the world, Keynesianism

played a key role. According to Harvey, between 1945 and 1973, capitalist system built on "…certain set of labour practices, technological mixes, consumption habits, and configuration of political-economic power" provided by Fordist-Keynesian model. This model, as Gramsci predicted, could be so effective by means of Keynesian nation politics (Harvey, 1989: 124).

Perhaps Keynesianism could be effective only in the United States after the war. But the '*welfare regime*' supported by Keynesianism provided the global restructuring from the end of the 1940s onwards. Hence, Fordist system achieved a spreading out from the United States, the countries of Western Europe, and Japan. Afterwards, "Fordist model came to dominate OECD countries, if one excepts Turkey and includes Finland, though the letter before the war was among the less advanced countries" (Lipietz, 1992: 9). Consequently, Keynesianism came to dominate in advanced countries and to determine the institutions and societies in most Third World countries, which were marginalized.

What is Keynesianism? The term is based on the economic principles of the banker (and politician) John Maynard Keynes. "Keynes argued that governments should intervene to regulate the booms and slumps that characterize capitalist economies. In particular, governments should spend in times of recession to create more effective demand for private goods and services" (Knox and Pinch, 2000: 34). Parallel with this approach, *Keynesian welfare state* appeared. It may be defined as *a welfare state underpinned by Keynesian demand-management policies*, and *also characterized by universal benefits, citizens' rights and increasing standards of provision through the social wage*. Finally Keynesianism is relationally described: "a set of policies underpinning the welfare state in the 1950s and 1960s. The objective was to manage economies by countering the lack of demand in recession through government spending – 'demand management' (Knox and Pinch, 2000: 142).

According to Harvey, Keynes saw the main problem of economy in terms of *scientific managerial strategies* and *state powers* that can stabilize capitalist system. In addition, he succeeded to avoid irrationalities stemming by 'cold war' conditions, such as nationalism, national socialist solutions etc. And finally capitalism achieved high rates of growth by means of Keynesianism (Harvey, 1989: 129). During this period, "Fordism became firmly connected with Keynesianism, and capitalism indulged in a splurge of internationalist world-wide expansions that drew a host of de-colonized nations into its net… the ability to provide collective goods depended upon continuous acceleration in the productivity of labour in the corporate sector. Only in that way could Keynesian welfare

statism be made fiscally viable" (Harvey, 1989: 139).

Beside Harvey's economic analysis on Keynesianism, Rupert develops a more political approach. He points to another component of Fordist-Keynesianism as '*Cold War Ideology*'. According to him, Cold War conditions played a crucial role in the political stabilization of Fordist institutions first in the United States, and tyhen in other non-communist countries. It is possible to think Fordist regulations with Keynesian welfare states took under control the labour unions, and rebuilt the liberal capitalist lines under the view of American hegemony (Rupert, 1996).

It is known *American way of life* came to dominate at the international level. Lipietz claims that "it became known throughout the world after the war as the 'American way of life' – productivity model was '*hedonist*' in that it was based on the pursuit of happiness through the mass availability of a greater number of goods." (Lipietz, 1992: 6)

The claims on *American hegemony* and *American way of life* cannot be easily ignored. It is known that American way of life in societies, and American hegemony in international markets has been the case for half a century. Though, recently it is commonly argued, advanced capitalist countries accepted these facts because of protecting benefits of Fordism, which provided great development in the Fordist era. But in fact, "Not everyone was included in the benefits of Fordism, and there were, to be sure, abundant signs of discontent even at the system's apogee" (Harvey, 1989: 137).

2.2.3.3. Variants of Fordism in Core and Periphery Countries

The one-car-per-minute production method was implemented by the Ford Motor Company at its Highland Park plant in 1914. It has had a profound effect not only on the automobile industry, but on virtually every other industry as well. Various ways of the Ford system were received and modified.

> "In addition to the USA, the birthplace of the Ford system, seven other major auto-production nations are looked at: England (Herbert Austin and William Morris), France (André-Gustave Citroén and Louis Renault), Germany, Italy (Giovanni Agnelli Fiat), Sweden (Volvo), China, and Japan (Kiichiro Toyoda)… Case studies of representative manufacturers are taken up in a multidimensional approach that highlights the various Ford systems that developed in those countries. (…) In 1916, less than two years after the appearance of the Ford system, annual US automobile production reached 1 million units, a level not destined to be reached by any other nation until England achieved that figure in 1945, well after World War II. West Germany hit the 1 million units mark in 1956, followed by France in 1958, and by Italy and Japan in 1963" (Shiomi, 1995: 1-3).

Shiomi states that there were some problems in areas of implemented Ford system

outside the USA in order to achieve the level of mass production, such as material purchasing, sub-assembly inventory, quality control, equipment maintenance, and process management, in addition to sorting out various employment-related issues; i.e. hiring, training, and discipline. “The kind of systematic effort needed to implement and modify the Ford system was an ongoing process that went on in the various countries well into the 1960s” (Shiomi, 1995: 3).

This implementation and modification process leads up to the late 1960s in terms of three trends (Shiomi, 1995: 3-4):

1. *towards mass production of different models with a variety of specializations (multiple versions)*. Ford’s Highland Park and River Rouge plants were specially designed to produce only one model, the Model T. It was needed to modify for more flexible system, and Toyota succeeded it by means of establishing a mixed assembly line.
2. *the process of the international implementation and modification of the Ford system application of transfer automation*. It is a precursor to today’s robotized factories, representing the imposition of rather inflexible automation directly on traditional dedicated production lines.
3. *the application of the Ford system to small lot assembly*, with reference to sports car production by BLMC of England and Nissan of Japan, and luxury car production by Volvo of Sweden. Nissan is able to produce niche cars in lots less than ten, but this is completely different from the craft production techniques that were used before the adoption of the Ford system; partial, or skillfully modified use some of the elements making up the Ford system can be seen.

The emergence of the variants of Ford system is almost as old as Ford’s companies. In fact, during the period between the world wars, the Ford Motor Company set up transplant manufacturing facilities in Copenhagen (1919), Sao Paulo (1921), Trieste (1922), Yokohoma and Buenos Aires (1919), a suburb of Paris and the German city of Cologne (1925), and the London suburb of Dagenham (1928); the Canadian Ford Company was establishing plants in Australia, New Zealand, South Africa, and other countries (Shiomi, 1995: 5-6). Some of these plants were essentially versions of River Rouge plant. But especially after the Yokomo plant (Toyota), built in order to facilitate significant expansion in the Far East, Ford system faced its variants; some of them really differed from the classical system. “Yokohoma plant was equipped with modern conveyor systems for chassis and body assembly, and it was capable of production a maximum of 200 cars a day, or 20,000 cars per year” (Shiomi, 1995: 6).

Wada states: “in 1955 the USA produced about 9,2 million vehicles; Japan, just about 69,000 vehicles. After the years 1960s Japanese automobile assemblers constructed new dedicated plants for passenger cars. In 1980 Japan produced over 11 million vehicles

and became the largest car producing country in the world, passing the USA. In the same year Toyota and Nissan made 3,2 million and 2,6 million vehicles respectively" (Wada, 1995: 11). In this process, Nissan's approach in fact was a 'direct technology transfer' while Toyota's was an 'indirect technology transfer'. Thus, Nissan faced many lacks of the implementation of mass production; meanwhile Toyota tried to adapt the imported technology to existing conditions. Finally, Toyota succeeded to reach *flow production*, based on integration between Ford production system and existing conditions. This method has not developed in the Japanese automobile industry, but in Japan's manufacturing industry as a whole (Wada, 1995:11-2). It should be noted that the Japanese practice is the most interesting and important variant of Fordism. Sayer states that the Japanese experience should better be named as '*flexible rigidities'* (Eraydın, 1992: 15).

According to Eraydın, in 1960s, outside of the Japanese experiences, Fordist production system spring to periphery countries. Most of these plants, except the ones in newly industrializing countries, were established by national or multinational firms. They were followed in accordance with the advanced countries' strategy focusing highly on the national market. All these experiences indicated the fact that Fordism was not capable to spread to whole economy (Eraydın, 1992: 19-0). On the other hand, Harvey claims that in 1960s there was a wave of competitive Fordist industrialization to entirely new environments by means of especially import substitution policies in many Third World countries and offshore manufacturing in South-East Asia. Thus, Western Europe, Japan, and newly industrializing countries were capable of competing with the USA, and thus the hegemony of USA started to collapse (Harvey, 1989: 141).

Peck and Tickell's table (see Table 2.1.) successfully summarizes the variants of Fordism, though there exists no consensus in relation to their terms. It may be possible to say that each model is decomposed from others especially by differences in state politics, conditions of workers, flexibility in production, organization of capital, and so on. While core countries are decomposed each other by degree of flexibility, financial integration, state politics, and social segmentation; periphery countries are decomposed each other by degree of authoritarianism, less democracy, exploitation, totalitarian states politics – especially on workers -, and primitive technologies.

That the term of 'delayed Fordism' gained a considerable area of interest and that the Fordist assembly line was driven to a local instrument is commonly accepted is a well-known fact. Here, the dominant consideration is that Fordism had formerly experienced a crisis period in which the initial flourishing of localization had existed, and that a Fordist

sub-stage development had been experienced within the less developed countries in relation to import substitution strategy. Another considerable opening of the term is the claim that Fordism did not lasted, but rather, was revised (see chapter 3). It is possible to state that the 'delayed Fordism' may be considered as a derivative of Fordism; but to place it within a strictly defined period will be the negligence of the fact that Fordism did always have differences and that the emphasis on the phenomenon of locality has an importance in all practices.

Table 2.1. Variants of Fordism

Type of Fordist Regime	Characteristics of Coupling	Examples
Classic Fordism	Mass production and consumption underwritten by social democratic welfare state.	USA
Flex-Fordism	Decentralized, federalized state. Close cooperation between financial and industrial capital, including facilitation of inter-firm cooperation.	West Germany
Blocked Fordism	Inadequate integration of financial and productive capital at the level of the nation state. Archaic and obstructive character of working class politics	Great Britain
State Fordism	State plays leading role in creation of conditions of mass production, including state control of industry.	France
Delayed Fordism	Cheap labour immediately adjacent to Fordist core. State intervention played key role in rapid industrialization in the 1960s.	Spain, Italy
Peripheral Fordism	Local assembly followed by export of Fordist goods. Heavy indebtedness. Authoritarian state structures coupled with movement for democracy, attempts to emulate Fordist accumulation system in absence of corresponding MSR.	Mexico, Brazil
Racial Fordism	Dualistic workforce. Privileged minority has north American-style working conditions and remuneration levels. This relies upon authoritarian state structure and the 'super-exploitation' of majority population.	South Africa under apartheid
Primitive Taylorization	Taylorist labour process with almost endless supply of labour. Bloody exploitation, huge extraction of surplus value. Dictatorial states and high social tension.	Malaysia, Bangladesh, the Philippines
Hybrid Fordism	Profit-driven expansion based upon modified Taylorism. Truncated internal market, societal segmentation and upper-developed welfare state. Indirect wage indexation.	Japan

Source: Peck and Tickell, 1994: 286

Finally, it would be proper here to mention about the entrance of Fordist production to less developed countries and about the mode of development within these geographies. There stands a dominant comprehension in explaining Fordism's development in less developed countries by means of dependency relations. If the importance of local dynamics in south Asia is put aside, especially Wallerstein's *'core-periphery'* distinction provides an effective perspective for our understanding. According to Wallerstein, one, perhaps the most popular, of the *'world-system'* theorists, *'the capitalism is a negative-sum game'* meaning that "…the rise of some nations is always accompanied by the fall of

others" (Hoogvelt, 1997: 4). Thus, the entry of the Fordism into less developed countries is not be considered as the possibility to jump to an upper development level, such as from the level of being less developed to that of being advanced.

The fundamental reason for the leaping of Fordist production to less developed countries is the plugged market relations within the capitalist environment. The provided supplementary of the core-periphery, in turn, caused the prevalence of this mode of production. In other words, the problem to make mass production permanent gave birth to the imperativeness of the expansion of Fordist production to less developed countries. Although the increase in national income and in sectoral development have been evident during this period, it has been well observed that a total Fordist mode of accumulation could not develop in accordance with its supportive national and social organizations (Eraydın, 1992: 50).

2.2.4. Crisis of Fordism

Following the discussion in the previous sections, it is possible to say that Fordism began to flourish towards the end of the 1960s. The actual time or period of the crisis conditions of Fordism is not specified exactly; rather, there are different approaches trying to clarify the starting point of the crisis of Fordism. One of them belongs to Aglietta (1979) emphasizing the year of 1966. But it should be noted that the common acceptances on the emergence of new mode of production alternatives for Fordist production point to the time after 1972 (Eraydın, 1992: 17).

The most emphasized reason of the crisis is the *rigidity* of the Fordist system.

> "…more generally, the period from 1965 to 1973 was one in which the inability of Fordism and Keynesianism to contain the inherent contradictions of capitalism became intensified and apparent. On the surface, these difficulties could best be captured by one word: *rigidity*. There were problems with the rigidity of long-term and large-scale fixed capital investments in mass-production systems that precluded much flexibility of design and presumed stable growth in invariant consumer markets. There were problems of rigidities in labour markets, labour allocation, and in labour contracts (especially in the so-called 'monopoly' sector)" (Harvey, 1989: 141).

During the Fordist period, though these rigid relations could establish specific governments and institutions so as to survive the Fordism, changing conditions of demands cause inadequacy of existing institutions and Keynesian politics. Furthermore, the emergence of diffusion of Fordism to less developed countries in order to arrive satisfactory levels in advanced capitalist markets accelerates the crisis (Eraydın, 1992: 17).

Lipietz claims the crisis related with two sides: demands size, of crisis related to increasing international integration of production-consumption circuits (mainly due to trade between developed countries) led to difficulties in regulating concurrently both the growth of inner demand and the trade-balance; and supply side, the decreasing the rate of growth in productivity due to weaknesses of Taylorism, and the increasing cost of mechanization, led to a decrease in profitability of investment. In addition, Lipietz states the importance of increasing competition in the international market. According to him, diffusion of Fordist production towards periphery countries particularly increased the international competition, and caused a new division of labour. Accompanying the fall of the rate of profits, labour wages calmed down and unemployment increased. These impacts forced the system to build new regulation mechanisms for the accumulation of capital (Lipietz, 1998). Furthermore, Eraydın claims that nations started to loose their powers that provide to go on Keynesian politics 1972 oil crisis. Production costs increased with dollar, so trade possibility with periphery countries was plugged. This conjuncture causes to break down both Keynesianism and Fordism (Eraydın, 1992: 18-9).

Harvey explains these processes in relation to the nature of capitalism, which has dialectical relationship with economic crisis caused by overaccumulation. After 1972, overaccumulation of Fordist production was not controlled, and financial problems such as inflation appeared.

> "The attempt to put a brake on rising inflation in 1973 exposed a lot of excess capacity in Western economies, triggering first of all a world-wide crash in property markets and severe difficulties for financial institutions… The strong deflation of 1973-5 further indicated that state finances were overextended in relation to resources, creating a deep fiscal and legitimation crisis… Technological change, automation, the search for new product lines and market niches, geographical dispersal to zones of easier labour control, mergers, and steps to accelerate the turnover time of their capital surged to the fore of corporate strategies for survival under general conditions of deflation" (Harvey, 1989: 145).

2.2.5. Flexible Production

Following the crisis of Fordism, the capitalist nations are recently undergoing wrenching economic, social and political transformations. At its core, these transformations involve a shift away from the mass production of highly standardized goods and services for mass markets to small-batch production of relatively customized goods and services for niche markets (Knudsen and Boggs, 1996: 1). These transformations are broadly based on the transition from Fordist production (mass

production) to post-Fordist production (flexible production): “The crisis of Fordism in the 1970s led to the worldwide collapse of the mode of accumulation and regulation which were its characteristics. This crisis continues: a new, stable, international, hegemonic ‘post-Fordist’ development has so far been unable to impose itself” (Esser and Hirsch, 1989: 76).

Considering the debate on the process of transition from mass production methods to a ‘*post-Fordist*’ form of production organization, there is no consensus as to define exactly what constitute post-Fordist modes of production organization, labour processes, or macroeconomic arrangements (Storper, 1989: 196). Thus flexible production is yet a debate summarized and evaluated in the following chapter. In this section, it is aimed to define well-known signs and tokens of flexible production, tough there exists no consensus what it exactly includes. In other words, only the facts of the flexible production, commonly referred as the *realities*, are matters of this section.

It is possible to say that there are three main driving forces behind the emergence of Post-Fordism, which may be listed as; the rising of new technologies, internationalization, and the paradigm shift from Fordism to post-Fordism. Firstly, the competition with the newly industrialized countries (NICs) has forced the advanced capitalist economies to specialize in the new core technologies. Secondly, the internationalization puts weight on the wages as costs of production rather than the sources of home demand. They have to secure the maximum benefit to their home-based transnational firms and banks. And thirdly, the new paradigm of post-Fordism means that the primary economic functions of states are redefined. States are focused on the supply-side problem of international competitiveness and they attempt to subordinate welfare policy to the demands of flexibility (Lipietz, 1998).

The prior reality of flexible production is that it exists in connection with the crisis of Fordism (Eraydın, 1992: 23). In other words, flexible production is marked by a direct confrontation with the rigidities of Fordism. “It rests on flexibility with respect to labour processes, labour markets, products, and patterns of consumption. It is characterized by the emergence of entirely new sectors of production, new ways of providing financial services, new markets, and greatly intensified rates of commercial, technological, and organizational innovation” (Harvey, 1989: 147).

The changes from the above, mentioned by Harvey, are generally considered as true. On the other hand, claim of Storper and Scot (1988) is not easily ignored. They say flexible production has been materialized particularly in manufacturing industry and economy, but how they affect the other areas still remains (see in Eraydın, 1992: 23).

Instead of production of standardized goods by assembly line and with huge stocks, flexible production is based on a system that is dependent on the demand. This system supports total quality control systems, product differentiation, and vertical disintegration of production. In addition, these trends cause raising small-batch production and sub-contracted (Eraydın, 1999: 22-6). "Small-batch production and sub-contracting certainly had the virtues of bypassing the rigidities of the Fordist system and satisfying a far greater range of market needs, including quick-changing ones" (Harvey, 1989: 155-6). Furthermore, organized sub-contracting opens up opportunities for small business formation, and in some instances permits older systems of domestic, artisanal, familial (patriarchal), and paternalistic ('godfather', 'guv'nor' or even mafia-like) labour systems to revive and flourish as centerpieces rather than as appendages of the production system (Harvey, 1989: 152).

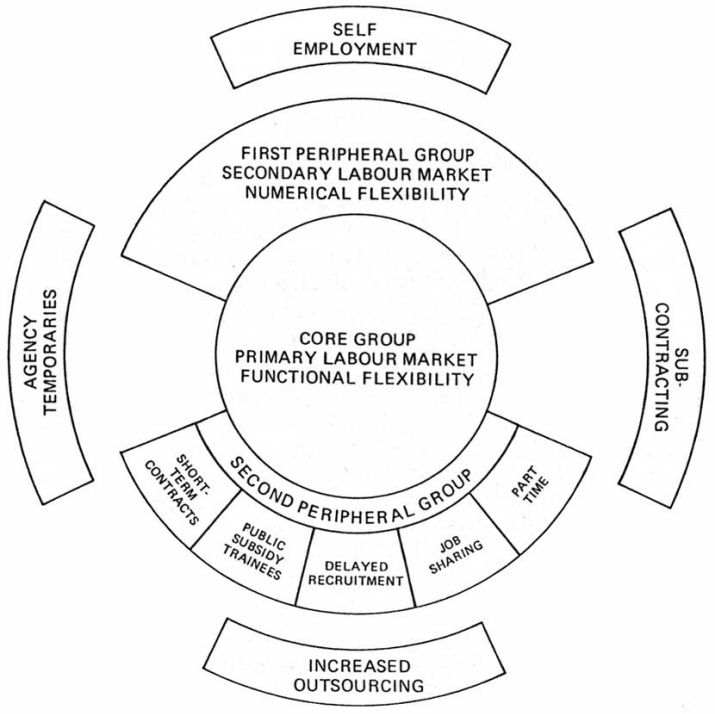
Flexible production consists of two important features: first, the intricate variety of subcontracting arrangements (that connect small firms to large-scale -often multinational- operations), and second, the formation of new production ensembles within agglomeration economies. These conditions provide the integration of small business to financial or marketing organizations. Many scholars state that enhanced capacity of small-scale business and geographical dispersal could led to diminution of corporate power by means of integration possibilities. In contrast, for Harvey: "the well-organized corporation has marked competitive advantages over small business" (Harvey, 1989: 158).

On the other hand, the role of labour power on production is completely changed. While labour unions and labour organizations loose their importance, skilled labours are entrenched at the center of manufacturing production. Thus, unskilled workers, especially ethnical and women employees have to work under more exploiting conditions (Eraydın, 1992: 23-4).

The changes in the labour relations, including division of labour, are related to changes in firms' structures. It is possible to state that both may support and provoke each other. This situation appeared after the 1972 oil crisis, when advanced countries, except Japan, were faced with increasing unemployment that could not be predicted in the postwar period. The tools to resolve the problem have been developed by means of '*two save bouts*' in the 1970s. "Flexibility and mobility have allowed employers to exert stronger pressures of labour control on a workforce" (Harvey, 1989: 147). Actually, the labour market has undergone a radical restructuring. Labourers have had to be forced through more flexible work conditions and labour contracts:

"It is hard to get clear overall picture, because the very purpose of such flexibility is to satisfy the often highly specific needs of each firm. Even for regular employers, systems such as 'nine-day fortnights', or work schedules that average a forty-hour week over the year but oblige the employee to work much longer at periods of peak demand, and compensate with shorter hours at periods of slack, are becoming much more common. But more important has been the apparent move away from regular employment towards increasing reliance upon part-time, temporary or sub-contracted work arrangements" (Harvey, 1989: 150).

Fig. 2.1. Labour market structures under conditions of flexible accumulation



Source: Harvey, 1989: 151

The figure given above illustrates the recent flexible labour market (see Fig.2.1). The *core* (a steadily shrinking group according to accounts emanating from both sides of the Atlantic) is made up of employees with full time, permanent status and is central to the long-term future of the organization. Enjoying greater job security, good promotion and re-skilling prospects, and relatively generous pension, insurance, and other fringe benefit rights, this group is nevertheless expected to be adaptable, flexible, and if necessary geographically mobile. The *periphery* encompasses two rather different sub-groups. The first consists of full-time employees with skills that are readily available in the labour market, such as clerical, secretarial, routine and lesser skilled manual work The second peripheral group 'provides even greater numerical flexibility and includes part-timers, casuals, fixed term contract staff, temporaries, sub-contractors and public subsidy trainees, with even less job security than the first peripheral group. All the evidence points to a very significant growth in this category of employees in the last few years (Harvey, 1989: 151).

Table 2.2. Contrast between Fordist production and just-in-time (post-Fordist) production

Fordist Production (Based on economies of scale)	Just-in-time production (Based on economies of scope)
THE PRODUCTION PROCESS	
Mass production of homogenous goods	Small batch production
Uniformity and standardization	Flexible and small batch production of a variety of product types
Large buffer stocks and inventory	No stocks
Testing quality ex-post (rejects and errors detected late)	Quality control part of process (immediate detection of errors)
Rejects are concealed in buffer stocks	Immediate reject of defective parts
Loss of production time because of long set-up times, defective parts, inventory bottlenecks, etc.	Reduction of lost time, diminishing 'the porosity of the working day'
Resource driven	Demand driven
Vertical and (in some cases) horizontal integration	(quasi-) vertical integration sub-contracting
Cost reduction through wage control	Learning-by-doing integrated in long-term planning
LABOUR	
Single task performance by worker	Multiple tasks
Payment per rate (based on job design criteria)	Personal payment (detailed bonus system)
High degree of job specialization	Elimination of job demarcation
No or only little on the job training	Long on the job training
Vertical labour organization	More horizontal labour organization
No learning experience	On the job learning
Emphasis on diminishing worker's responsibility (disciplining of labour force)	Emphasis on worker's co-responsibility
No job security	High employment security for core workers (life-time employment).
SPACE	
Functional spatial specialization (centralization/decentralization)	Spatial clustering and agglomeration
Spatial division of labour	Spatial integration
Homogenization of regional labour markets (spatially segmented labour markets)	Labour market diversification (in-place labour market segmentation)
World-wide sourcing of components sub-contractors	Spatial proximity of vertically quasi-integrated firms
STATE	
Regulation	Deregulation/re-regulation
Rigidity	Flexibility
Collective bargaining	Division/individualization, local or firm-based negotiations
Socialization of welfare (the welfare state)	Privatization of collective needs and social security
International stability through multi-lateral agreements	International destabilization; increased geopolitical tensions
Centralization	Decentralization and sharpened interregional/intercity competition
The 'subsidy' state/city	The 'entrepreneurial' state/city
Indirect intervention in markets through income and price policies	Direct state intervention in markets through procurement
National regional policies	'Territorial' regional policies (third party form)

Firm financed research and development	State financed research and development
Industry-led innovation	State-led innovation
IDEOLOGY	
Mass consumption of consumer durables: the consumption society	Individualized consumption: 'yuppie'-culture
Modernism	Postmodernism
Totality/structural reform	Specificity/adaptation
Socialization	Individualization the 'spectacle' society

Source: Swyngedouw, 1986 cited in Harvey, 1990: 177-9

In the Fordist period, the costs were reduced by means of the provided advantage of the *internal economies of scale*. Whereas, in flexible market, there are much smaller product runs and therefore decreasing internal economies of scale. The tendency for firms to subcontract functions to other firms and agencies, which can be called as *externalization of production*, caused to reduce costs by getting a variety of organizations to compete to provide goods and services. In addition, it can help to offload the risks associated with new joint ventures with other companies, the so-called *strategic alliances*. A major consequence of these developments is that firms are becoming much smaller. This has arisen because existing firms have been subdivided – *vertical disintegration* – as well as through the rapid growth of new small firms. Rather than the internal economies of scale dominant under Fordism, flexible firms are therefore based on *external economies of scope* (Knox and Pinch, 2000: 39) (see Table 2.2).

Besides these changes, the *deindustrialization* process has been experienced in advanced capitalist countries related to high-tech production, communication technologies, and rising competition (Ersoy, 2000). And if the process that explained above think with the recent living deindustrialization process in advanced capitalist countries, it can be seen that changes in labour market, changes in firms' structure and changes in organizations of production are closely related and depended each other. And this is the fact that it is shaped under decisive domination of large-scale firms, while providing considerable possibilities to small-scale firms.

Finally, it should be highlighted that service employment has developed more than the world had ever seen after 1972. "The rapid growth of service employment, not so much in retailing, distribution, transportation, and personal services (which have remained fairly stable or even lost ground), as in producer services, finance, insurance, and real estate, and certain other sectors as health and education." (Harvey, 1989: 156-7)

2.2.5.1. Japanization and Just-In-Time Production

Since the emergence of flexible production, *Just-in-time production* (JIT) and *Total Quality Management* (TQM), originally adapted by the Japanese variant of Fordism in postwar period (see section 2.2.3.3 in this study), have an important place in flexible production debates (Eraydın, 1992: 23). In contrast to the Fordist *just-in-case* manufacturing system, JIT system minimize inventory at each stage of the production processes. Tomaney offers a clarified definition:

> "the *just-in-time* system is conceptualized as a *semi-horizontal operational coordination* method, which requires shop level flexibility in adjustment the amount, kinds and timing of in-process materials. The minimal use of inventories necessitates effective control of low level disruptions, such as machinery malfunctions, worker absenteeism, quality defect and so on, in order to minimize their effects on the smooth operation of production. This is aided by a form of work organization in which job demarcations are minimal and job rotation is maximized" (Tomaney, 1994: 166).

Advantages of JIT are explained in terms of *total quality management* (TQM), where both innovations are popularized by Japanese corporations.

> "Since with JIT all the arriving parts must be defect free and the flexibility of JIT manufacturing requires total quality management structures which can quickly identify systemic failures and 'bottlenecks' in the production process… At the heart of TQM are quality control circles of workers and managers who work closely with each other and not in the traditional, hierarchical and compartmentalized Fordist way" (Rupert, 1997).

JIT system sometimes is called as *Japanization* or *Japanese production system*. "The Japanese production system is based in three principles: flexibility in utilization of facilities; minimization of quality problems as they arise; minimization of production-flow buffers, whether material, manpower or time-buffers" (Tomaney, 1994: 165). In addition, Japanese production can be evaluated held to challenge some assumption of 'Western orthodoxy' in mass production industries by means of concerning with the elimination of wasted output and wasted time contrast of the Western models.

Some scholars examine how Japanese experiences effect the environment of today and future. For example, Amin and Malmberg modestly highlight the relationship between JIT and the growing significance of networking as a form of organization and governance (Amin and Malmberg, 1992: 237). More assertively, Sabel, who state that the world has entered to a *'flexible specialization'* age, considers JIT as an integral part of this new age (Sabel, 1989: 34). On the other hand, some scholars, such as Kenney and Florida (1988) pay more attention to JIT. They believe that the Japanese model has been described as the

quintessential of the post-Fordist society, and the industrial principles, which are taken as to underpin Japanese competitive success, are considered to be transferable to other countries (Tomaney, 1994: 164). In contrast, there is a statement related to Japanese model claiming that people are in an age of *neo-Fordism* which is attempting to overcome the limitations of the old Fordist system without a cause in fundamental transformation (Knox and Pinch, 2000: 41).

There are two conflicting points about Japanization: First, although it is claimed that the Japanization approach offers a much more humane working employment, there is a counter argument on the fact that it intensifies exploitation of labour conditions; and second, although Japanization is supported by scholars of post-Fordism, this method actually do not suggest the 'end of mass production'. And yet, it seems really hard to support any of the two. But it may be easily stated that the Japanese production focuses on the work organizations and managements by means of JIT and TQM systems. That the capability to attain hegemonic production system all over the world requires more drastic arrangements is a possible further comment.

Chapter 3

APPROACHES ON THE TRANSITION TO FLEXIBLE PRODUCTION

The only general point of agreement is that something significant has changed in the way capitalism has been working since about 1970.
(Harvey, 1990: 173)

The concept of '*flexible production*' refers to a set of regulations to increase the capacity of firms, adjust the variations in market demand, reduce the costs of production, and to more flexible labour relations, mechanization, and even society. In addition, flexible production includes 'the emergence of new sectors of production, new ways of providing financial services, new markets, rates of commercial, technological and organizational innovations' (Harvey, 1990). It should also be noted that the debate on the '*flexibility*' in production systems, markets, labour relations, and so on, is strongly related with the concept of '*post-Fordism*'.

Post-Fordism is no longer a strange jargon in the academic literature (Amin, 1994). It refers to the new accumulation processes based on flexible production, sometimes (perhaps generally) understood as the opposite of Fordism based on mass production, though having not a consensual basis. "Defenders of the Fordist/Post-Fordist concept argue that, just like the car factories of the past, the new industrial spaces are the key propulsive industries that drive much of the economy and help to determine its overall shape" (Knox and Pinch, 2000: 41).

Within the debate, there are some agreements on the interpretation of current changes such as the fact that transition to post-Fordism started in relation to changing production types, and that these changes, thus, have caused or accompanied with social, economic, and institutional changes. Post-Fordism debates mostly turn around two questions: first, does the system go through a new phase of capitalism or only pass through a temporary period to reach more stable conditions? And second, which dynamics do determine these changes? Seeking for the answers of these questions, different theoretical approaches – they can be called as 'transition models'– have been built. In this chapter, within an explanation of these models, flexible production debates are explored.

Many scholars, like Amin (1994) and Elam (1990), claim that there are three

transition models that are commonly accepted and laid at the heart of the post-Fordist debate because of the emphasis on the dynamics of structural economic changes within production. Though all these theoretical frameworks are different from each other, they have actually similar areas of concentration such as Fordism, mass-production and current, sometimes future, capitalist structure including dimensions of production, administration, organization, and social formation. These approaches are listed below:

1. The Neo-Schumpeterian (or Fifth Kondratiev) Approach
2. The Flexible Specialization (or neo-Smithian) Approach
3. The Regulation – School – (or neo-Marxist) Approach

These approaches are separated from each other by the differences in basic perceptions, methodologies, priorities, and so on. On the other hand, all three models may be defined and it is not possible to eliminate one of them from others by their degrees of importance, in discussion what post-Fordism is and how the scholars approach it. Shortly, each model is useful to explain one side of flexible production, and thus none is able to explain the whole. Therefore, it would be better here to explore each model individually.

3.1. The Neo-Schumpeterian Approach

This approach has been associated with the focus on '*innovation*' by Freeman and Perez and their colleagues established at the Science Policy Research Unit (SPRU) of Sussex University (see Freeman and Perez, 1988, Elam 1994, Amin, 1994).

Freeman and Perez (1988) have been inspired by Kondratiev's studies in 1920s and Schumpeterian studies in 1930s. Kondratiev claimed that capitalism lived traditional fifty-year *long-waves of 'boom'* and *'bust'* during its development process (see section 2.1.3. in this study). On the other hand, Schumpeter believed *innovative* entrepreneurs have a *path-breaking* role to give birth to the new technical paradigm with reference to the process of *creative destruction* for the future. Freeman and Perez's hypotheses, which are based on a conceptualization of long-wave development booms and innovations, are crucial in the constitution of the approach. Their concept of '*innovation*' include not only new production techniques and industrial processes but also work organizations, management, new high growth sectors, transport and communication technologies, geographies of location, and so on.

3.1.1. Creative Destruction, Key Factor and Revolution

When Schumpeter built his theory on '*technological innovation*', often labeling it as '*new*', he gave special attention to the entrepreneurs. To Schumpeter, all revolutions started when they reached to the point of '*creative destruction*'. Schumpeter's '*creative destruction*' was based on '*long-term changes in the technological base of the economy*': "The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates" (see Elam, 1990: 44).

The two factors, first the *quantum leaps* in industrial productivity (they are secured once pioneering advances in technology diffuse across the economy), and second '*matching*' innovations (within the framework of socio-institutional norms and regulations) determine the successful transition from one long-wave to another. "Once these conditions are achieved, a new long-wave of growth can be said to be in full swing, with a distinctive techno-economic paradigm that establishes a universal standard across the economy" (Amin, 1994: 12).

According to Elam, "Freeman and Perez have been responsible for the significant extension and refinement of Schumpeter's original formulations and have thereby greatly added to our understanding of the nature of technological change." When Freeman and Perez define the *revolution* as consisting of a *cluster of radical innovation*, they introduce "…a new set of common sense principles into capitalist production and a clearly defined 'best practice' frontier" (Elam, 1990: 45). If the system arrives at the '*boom*' point, then transition starts unavoidably. The only thing for the system what the problem is reaching successful transition.

Freeman and Perez's emphasis on '*new*' not only includes the techno-economic changes, but also new governments, new locations, new growth sectors and so on.

> "The systemic nature of technological revolution gives rise to the notion of 'techno-economic paradigms'; qualitative changes in capitalist production exceeding the simple sum of new engineering trajectories – completely new worlds of work with new standards of efficiency; new models for management; new locational patterns; new high growth sectors and redefined optimal scale of production" (Perez, 1985 cited in Elam, 1990: 45).

Although Freeman and Perez discuss the conditions of transition in a wider context, the scholars claim that the techno-economic paradigm, labeled as *key factor*, plays a *steering role* in the transition period. Thus, neo-Schumpeterian approach explains each

long-term related to the directing capability towards a techno-economic paradigm (the key factor) in a specific industry as the fact that cotton and woven industry did between the years 1740 and 1840. Each long-term has similar key factors (Eraydın, 1992: 34).

Neo-Schumpeterian scholars clearly define the key factor, which must fulfill following conditions (Perez, 1986; Freeman and Perez, 1988 cited in Elam, 1990: 45):

1. Clearly perceived low and rapidly falling relative cost;
2. Almost unlimited supply for all practical purposes;
3. Potential all-pervasiveness in the production sphere;
4. A capacity to reduce the cost and change the quality of capital equipment, labour inputs and other inputs to the system

In sum, neo-Schumpeterian approach basically claims that '*old industrial organizations*' are continually changed by means of a process of creative destruction. In this process, entrepreneurs start to create more technology based and more innovative firms in order to increase their profits and market shares. This tendency brings about new sectors, some of which have the capability to play the steering role. If the transformed firms success, new innovations cause destruction within the existing market structure. Afterwards, old firms are departed or loosed their efficiencies due to debility of new competition area. Thus, whole economic and social structure is transformed. This is a revolution.

3.1.2. Fordism As the Fourth Kondratiev

According to Freeman and Perez (1988), the age of mass production may be considered typically as the fourth Kondratiev or the fourth long-wave period, which was established via the domination of electro-mechanical technologies, oil and petro-chemical industries, and other mass production industries. They frequently point at the characteristics of production and markets like 'standardization, scale economies, oligopolistic competition, mass consumption of cheap goods, and vertical integration of corporations'. The approach includes not only these factors, but also the emphasis on the importance of socio-institutional arrangements, especially national policies under the '*banner of Keynesianism*'. For neo-Schumpeterian approach, Keynesianism provided the tools which created sustainability – to link between employment, output and productivity growth (Amin, 1994: 12).

Freeman and Perez (1988) label the breakdown of Fordism as a historical necessity,

in relation to the impropriety between an emerging techno-economic paradigm which could renew growth, and withdrawing socio-institutional framework of the fourth Kondratiev. In other words, institutional changes occurred more slowly than innovations in production. “This inertia is traced not only the failure of contemporary government policies to provide coordinated and directed industrial policy action, but also to the difficulties and time lags involved in radically changing embedded socio-cultural habits and norms across the wide range of institutions which constitute the ‘socio-institutional framework’ (Amin, 1994: 12).

3.1.3. The Fifth Kondratiev with Steering Roles of Information Technologies and Microelectronics

According to Freeman and Perez, people recently access the *fifth Kondratiev*, which is defined by the techno-economic realities rather than other factors, such as social and cultural changes. Recent transition has the ‘key factors’ playing a ‘steering’ role which are *information technologies* and *microelectronics*: Low-cost coal and steam-powered transportation in first Kondratiev; low-cost steel and heavy engineering industries in 1880s and 1890s; and oil and petro-chemical industries after 1930.

The debate on information technology and microelectronics as the can be replaced as the fundamental sectors of the recent period within lots of study in a variety of disciplines. Likewise, it may be possible to offer opposing ideas provided by the studies that indicate successful transition depending on the social innovations rather than the techno-economic paradigm, like the ones on East Asian practices (see Shiomi and Wada, 1995).

Due to its definition of post-Fordism, the neo-Schumpeterian approach is criticized as being ‘*technology determinist*’. According to Freeman and Perez, the technology-induced changes in product and communication systems are prior rather than organizational and market changes. On the other hand, they point out the dynamics of successful transition from one long-wave to another are depended the changes in the economic, social, and institutional structures. Especially, the institutional changes occupy a central place in the neo-Schumpeterian literature. “The transition from one techno-economic paradigm to the next is considered to entail equally profound transformation of the institutional and social framework” (see cited in Elam, 1990: 46).

Finally, the similarities between the neo-Schumpeterian and the regulationist

approach, evaluated in the following sections, should be mentioned. For Amin, "there is broad agreement the two approaches over: the systemic and cyclical nature of capitalist development; the periodization and general dynamics of Fordism; the significance of the degree of match; (…) and the stability of a 'long wave' or 'long cycle' of economic development" (Amin, 1994: 11). The major differences between the approaches is that while neo-Schumpeterian approach put the techno-economic paradigm to the center, regulation approach focus on the whole historical realities of the capitalist system by means of the 'regime of accumulation'.

3.2. The Flexible Specialization Approach

This approach has been very popular since 1984 when American sociologists Charles Sabel and Michael Piore prepared the work named as "*The Second Industrial Divide: Possibilities for Prosperity*". After this time, the framework of the flexible specialization has been supported, and criticized, by many studies, especially by the works of Jonathan Zeitlin and Paul Hirst (see Piore and Sabel, 1984; Sabel, 1989; Storper, 1989; and Hirst and Zeitlin, 1989).

To begin with, flexible specialization is based on the new division of labour with respect to the craft production. It identifies complex and variable connections between institutions, markets and politics under the impact of technological development. Hirst and Zeitlin (1989) define the flexible specialization as "…the manufacture of a wide and changing array of customized products using flexible, general purpose machinery and skilled adaptable workers".

3.2.1. The Theory of 'Industrial Dualism'

The scholars of the flexible specialization avoid highlighting concepts of 'historical evolution' and 'transition'. They mostly focus on the production, especially technology and technical development of production related to workers' ability and governmental applications. In other words, although governmental applications is prior within the framework, their basic argument is actually about production. It is "…a simple conceptual distinction between two opposites of industrial production: mass production and flexible specialization" (Nielsen, 1991 cited in Amin, 1994: 14). To the scholars of flexible specialization, these two concepts have evidential differences which can be summarized as "…mass production involves the use of special purpose (product specific) machines and of

semi-skilled workers to produce standardized goods while flexible specialization, or craft production, is based on skilled workers who produce a variety of customized goods" (see Amin, 1994: 14).

Elam (1990) states that it is necessary to focus on the *theory of industrial dualism* (which is established by Michael Piore) in order to understand the flexible specialization thesis and its basic dualistic structure: mass production versus flexible specialization. Referring to Piore, Elam states:

> "The notion of a pervasive dualism in industrial societies gained favour in the 1970s. A series of dichotomies was identified spanning different economic systems and attempts were made to find common explanatory focus. The dichotomies included:
>
> a. In the enterprise structure of modern industrial economies between a large, monopolistic sector and a small, competitive sector;
> b. In developing economies between a modern, organized sector and a traditional, informal sector;
> c. In the labour market, between a stable core of high-waged workers (typically white/male) and an unstable periphery of low-waged workers (typically black/female)" (Elam, 1990: 51).

This and similar dualistic structures have been emphasized within many discussions especially within the development studies since the nineteenth century. Piore and Sabel were deeply affected by these works. Thus, this dualistic perspective has moved the center of the debates on the flexible specialization framework as being one of, perhaps most popular of, the dualistic approaches.

According to Piore, mass production and flexible specialization creates reciprocal effects; in spite of both do always exist. In progress, each paradigm always needs to be supported by the policy-making actors such as firms and governments. The dichotomist situation does not belong to the crisis or transitions, whereas, it must be explained with *their own moments* and *government applications* (Amin, 1994: 14). At this point, Elam's note should be reminded: "Although Piore and Sabel also take up notion of *technological paradigms*, the emphasis is very much on social innovation and only secondarily on embodied technology" (Elam, 1990: 50).

In contrast to some assertions based on criticisms against the dualist approach, it is accepted that flexible specialization approach cannot be easily defined as 'technology determinist' because of its interest in structure of governments, market and division of labour. According to Elam, flexible specialization approach can be seen as a *neo-Smithian* framework, because "…such a link has been seen by Piore as requiring a move away from

the basic tenets of the neo-classical economics and a return to classical political economy; or more precisely, to what he calls Adam Smith's theory of technology." Elam reminds Smith's two postulates claiming the development of the productive forces: "firstly, that productivity is an increasing function of the division of labour; and, secondly, that the division of labour is limited by the extent of the market" (Elam, 1990: 51).

3.2.2. The First Industrial Divide and Fordism

The most important offer of flexible specialization framework on the Fordist era is an effort for the explanation of the whole economic and political structure related with changes in production. Thus, Piore and Sabel built a specific concept, the *industrial divide*, which is based on the changes in organization of work relations between capital and labour, and manufacturing technologies (Tomaney, 1994: 159). The theory of industrial divides focuses on the shifts from one hegemonic technological-organizational model of production to another. Piore and Sabel claim that these divides mark major periods in economic history and social organization within industrial capitalism (Storper, 1989: 197). That is to say, industrial divides are crossroads of industrial organizations. According to Piore and Sabel (1984), there have been two industrial divides, and the first industrial divide appeared at the early beginning of the twentieth century, coupling with the emergence of mass production and related production techniques that brought the hegemony on craft production methods to an end.

Piore and Sabel (1984) state that mass production dominated main industries via the support of governmental applications during 1920s and 1930s, especially in USA and Europe. Thus, big industrial firms and giant factories went towards the center of manufacturing production. When labour and social structures were shaped by these dominances, Keynesian policies became the most acceptable economic model almost all over the world by their emphasis on the creation of sustaining and stable demand. Furthermore, there was a direct relation between national economic development and hegemonic structure of production. According to Sabel, "…national economic development was only marginally controlled by central political authorities" (Sabel, 1989: 17). And Alfred Marshall, who is an important figure of the neo-classical economy, highlighted national policies rather than the character of industrial production after 1920s.

Flexible specialization approach, in fact, points to the emergence of Fordism as an historical crossroads despite its avoidance in using historical view. Elam states "Piore and

Sabel do not see a new 'long wave' – referred to Kondratiev -, but a new 'branching-point' – a 'brief interlude openness' before the new technological trajectory is established" (Elam, 1990: 50). In this respect, it is possible to claim Piore and Sabel that they conceive the Fordist era as preparatory, or perhaps *'missing'*, period of ultimate production type, the flexible specialization.

According to the flexible specialization approach, Fordist era may be considered so as to unravel the dichotomies, referring to Piore's industrial dualism theory, in industrial societies to get domination of the monopolistic sector, modern-organized sectors, and low-waged unskilled workers. In other words, it was temporarily resulted in the dichotomies of different economic systems, and then some priorities appeared more lightly, such as monopolistic sector over competitive sector, modern/organized sector over traditional/informal sector, and stable core of high-waged workers over unstable periphery of low-waged workers. Furthermore, if Piore and Sabel's thoughts are based on Smithian economic view like Elam's claims, Fordist era may be seen as a result of adjustment within the *expanding markets and dividing labour*, which provides the raise in productivity for Smithian economic view. Thus, the division of labour in the history of capitalism can be seen as the definitive social innovation, an innovation that forces to adjust market shares because division of labour is limited by the extent of the market (Elam, 1990: 50-2). In this respect, Elam enlarges the prefigurative influence of the market on the division of labour by adding three other factors to that of 'extensiveness'. These are: a) the standardization of output; b) the stability of market demand; c) the uncertainty of market demand (Piore, 1980 cited in Elam, 1990: 52).

Following above explanations, it is possible to reach the heart of the idea on the first industrial divide: Piore points to the historical fact that "the co-existence of large and small-scale producers in the same industry in developed economies" (Elam, 1990: 52-3). Although increasing economic concentration need to reach 'a greater share of the market until only one firm left in the industry', there existed 'significant degrees of market instability and uncertainty'. These existences force the capitalist system to combine large-scale industries and small-scale industries in order to provide an enlarged division of labour. On the other hand, "the activities of modern craft producers have been a necessary complement to the activities of mass producers" (Elam, 1990: 53). According to Piore and Sabel, this reality appeared in Fordist era, and gave way to the transition towards flexible specialization.

3.2.4. The Flexible Specialization with Second Industrial Divide

According to Piore and Sabel (1984), *the second industrial divide* broke out in the early 1970s, hand in hand with the Fordist crisis experiencing in USA. Changes in the market and the growth in demand for non-standardized and qualified goods are the prospects for the flexible specialization. The conditions of crisis times caused the rise of the non-specialist and highly flexible manufacturing technologies and flexible work practices. Scale economies have lost its importance, and thus small firms and smaller units of organizations had dominancy with skilled and innovative workers in industrial structure.

The crisis of Fordism has resulted in many changes, and recession in the market, such as stagnation of demand, increasing uncertainty, breakdown of international agreements, and, the most importantly, threatening of the *mass consumption*. The demands for non-standardized, better quality, and short shelf life goods have started to increase, and flexible specialization, hence, has provided to be an alternative for the system.

> "The second development, also an opportunity for flexible specialization, is the rise of non-specialist and highly flexible manufacturing technologies (numerically controlled as well as non-electronic) and work practices. These are said to favour smaller batch production without loss of scale economies in industrial efficiency, thus reducing the historic disadvantage of small firms and smaller units of organization… Craft production might well be possible" (Amin, 1994: 15).

The most visible feature of flexible specialization in the current age is the rising importance of small firms (Piore and Sabel, 1984). According to this paradigm, not only flexible specialization created opportunities for small firms, but also the break-up of the mass markets created a trend favouring new small-scale producers. The economic crisis in the 1970s and 1980s appeared due to the twin notions: *'saturation'* and *'break-up'* of mass markets. Market changes insisted on the inevitable process through flexible specialization. The competition between mass production and craft production - industrial dualism - concluded with the victories of craft production.

It is known that small and medium sized enterprises (SMEs) survived from the crisis conditions in the market by means of turning them into the advantages: "During the 1970s and early 1980s, (SMEs) seemed to be the most productive industrial organizations, and, in fact, the only ones which were able to avoid the economic crisis... The flexibility of small firms in terms of quantity and quality of production was accepted to be key element of success for industrial development in that period" (Erendil, 1998: 66).

Piore and Sabel call attention to the *'Third Italy'* experience with new forms of

worker co-operations where they see a way in the experiences for small-scale producers to cope with their problems (Piore and Sabel, 1984: 206). Tomaney states that Third Italy practice may be considered as an example of "craft production replaced mass production as the industrial paradigm" (Tomaney, 1994: 160). The organizations like the co-operations in Third Italy were easily integrated with the dominant forms of labour market of corporate and multinational firms; furthermore, co-operations of small and medium scaled firms achieved the ruin of the hegemony of some big firms. These experiences, for Piore and Sabel, have shown the prospect of flexible specialization as a future system in spite of its missing this prospect at one particular time:

> "…the new technologies open up the possibility for a reconstitution of labour relations and of production systems on an entirely different social, economic, and geographical basis. Piore and Sabel see a parallel between the current conjuncture and the missed opportunity of the mid-nineteenth century, when large-scale and eventually monopoly capital ousted the small firm and the innumerable small-scale co-operative ventures that had the potential to solve the problem of industrial organization along decentralized and democratically controlled lines.[1]" (Harvey, 1989: 189)

According to this approach, SMEs provide two noticeable tools to cope with the problems: first, production is integrated and coordinated from *computer-aided design* (CAD) to *computer-aided manufacture* (CAM) that increases the possibility of efficient operation between separate work stations so that design and manufacturing can be linked, and additionally *just-in-time* production becomes possible. Second, due to the firms to change the *organizational pattern* according to the requirements of production and demand, firms may *subcontract* specialized production to small and medium sized specialist firms to decrease production cost. And finally, flexible automation and computerized management of flows may provide opportunities for *vertical disintegration* (Erendil, 1998: 69).

Furthermore, the flexible specialization approach emphasizes that there are different types of flexible integration models. Among these types, one is quite widespread. In this type, large firms decentralize internally and adopt new organizational techniques or externalize certain stages of production due to the efficiency of flexibility in the face of changing market demand and cost considerations. This type is called as *horizontal integration* model which emphasizes that the vertically integrated firm (large-firm) is generally substituted by vertically disintegrated system based on a series of specialized SMEs. In this respect, when the firms gain more flexibility and have less fixed costs in

[1] Meanwhile Harvey reminds the 'Prodhon's anarchism looms large'

production process, a group of SMEs are legally independent from each other, but very much vertically integrated with a particular production process through cooperative inter-firm linkages (Capello, 1996 cited in Erendil, 1998: 70).

Another important model for integration of large and small firms based on international market is called as *global commodity chains*. In this respect, large transnational manufacturers coordinate the production networks, especially in the capital and technology-intensive sectors, such as automobile, computers, semi-conductors and heavy machinery, which is generally labeled as *producer driven*. On the other hand, large retailers, brand-named marketers and trading companies can organize decentralized production networks, which is generally seen in labour-intensive consumer goods and labeled as *buyer driven* (Gereffi, 1994 cited in Erendil, 1998: 70).

The international integration models for industrial organizations are commonly discussed with references to flexible specialization approach. Within this model, different types of linkages may be identified by means of specific case studies, such as integration, disintegration, quasi-integration, and strategic alliances. Despite these studies, there has not been any consensus yet. On the other hand, these models propose a question for the agenda: Do the results of changing market structure provide opportunities only for SMEs over large firms, or do they also for contribute to the survival and protection of large-scale producers so that these large firms would provide extensive product differentiation besides mass production? Some scholars answer these questions by giving examples from the Japanese industry: “Most mass producers continue to survive today by providing families of interrelated products; Japanese industry has been leading the way by showing that previously unimaged degrees of product variety can be achieved within mass production enterprises… (General Motors) built a degree of variety and flexibility into mass production” (Elam, 1990: 56-7).

Finally, the common criticisms to the flexible specialization approach may also be evaluated. According to Amin (1994: 15-6) and Tomaney (1994: 162-4), the most common criticism is the constitution of dual oppositions, mass production versus flexible specialization, in relation to the flexible specialization, where each may be thought as the complement of each other. Secondly, Piore and Sabel have been criticized being too naive in defending the possibility of a large-scale return to a craft industrial paradigm, on the grounds that the embedded structure of Fordism might persist and adapt to new circumstances. Thirdly, the approach makes the distortion by equating only industrial efficiency with competitiveness, thereby underestimating the power of the protagonists of

Fordism (e.g. multinational firms) to continue to dominate markets via their grip over finance, market outlets, distribution networks, advertising and so on. And, even where instances of flexible specialization can be identified, this does not necessarily offer the benefits for labour, as assumed by Piore and Sabel.

Finally a reminder; Elam ironically labels Piore and Sabel's point of view on industrial development: "Just as proto-industrialization has been dubiously characterized as '*industrialization before industrialization*'; flexible specialization can be adventurously seen as referring to '*industrialization after industrialization*'!" (Elam, 1990: 54).

3.3. The Regulation School Approach

Regulation Theory was established by Marxian French Scholars in the 1970s, and ripened in the 1980s (see Aglietta, 1979; Lipietz, 1990, 1992 and 1998; Jessop, 1994 and 1997; Esser and Hirsh, 1989; Knudsen, 1996; Elam, 1990; Amin, 1994; Harvey, 1990; Cho, 1997; Tomaney, 1994). This approach has created massive impact on social science as it provided methodological tools to understand how capitalist system could survive despite all contradictions. The theory, in fact, deserves this popularity because the debate of *Fordism* and *Flexibilism*, still occupy considerable place in the social sciences, originating from the Regulation Theory. It may be said that the approach is based on the explanation of the paradoxes in capitalism between instable and inconsistent conditions, which could be visible by crisis, regulation roles of institutions, and social modes to create economic reproduction.

> "The aim of the early French regulationists was to develop a theoretical framework which could encapsulate and explain the paradox within capitalism between its inherent tendency towards instability, crisis and change, and its ability to coalesce and stabilize around a set of institutions, rules and norms which serve to secure a relatively long period of economic stability" (Amin, 1994: 7).

Firstly, the statements on the term of *regulation* may be evaluated. Elam notes that the French word '*régulation*' does not carry such a narrow meaning as the English word 'regulation'. It refers more to the preservation of a set of norms and a *'ways of life'*, rather than a process of conscious adjustment (Elam, 1990: 67). Storper and Walker (1989) additionally tried to explain the content of regulation while considering this term that it maintains the institutional fabric of (capitalist) growth in a dynamic contradictory setting through state interventions and class compromises. Knudsen and Boggs (1996: 2) state that regulation consists of five dimensions: technology, labor relations, firm organization,

public policy, and locational decision-making. And finally, Knox and Pinch (2000: 32) emphasizes that regulation theorists argue that such tensions and problems are overcome by various regulative mechanisms, such as those embodied in legislation encompassing commerce, trade and labour relations, together with the activities of various institutions that govern these spheres.[2]

The concept of *regime* is as important as the concept of regulation because the scholars of regulation approach see regime as "…partial, temporary and unstable result of embedded social practices rather than the pre-determined outcome of quasi-natural economic laws… its theorization of economic development and change claimed to give as much regard to historical processes as to the basic rules of the capitalist society" (Amin, 1994: 7). Thus, their evolutions are based on the idea of *'historical capitalism'* (see section 2.1. in this study) and more particularly based on the Marxian term of 'mode of production' (see section 2.1.1. in this study). Eventually, it may be stated that the methodology of regulation approach is based on some key concepts which are definitely constituted by the terms of 'regime' and 'mode'.

3.3.1 Key Concepts of the Regulation Approach

Regulation theory has built a number of key concepts identifying the core mechanisms at work in order to explain consistency of regimes in capitalist development. These are: *regime of accumulation, mode of regulation, dominant industrial paradigm* (or *labour processes*), *mode of development*, and *hegemonic structure* (or *mode of societalization*). It must be noted that there are some differences of opinion within regulationists due to the wide area of interest of the approach. Thus, these concepts are not commonly accepted, except the two terms: 'regime of accumulation' and 'mode of regulation'.

3.3.1.1. Regime of Accumulation

Lipietz defines the regime of accumulation as follows: "The logic and laws of macro-economics describe the parallel development, over a long period, of the conditions of production on the one hand (productivity of labour, degree of mechanization, relative importance of the various branches of production) and, on the other hand, the conditions under which production is put to social use (household consumption, investment,

[2] The examples of these phenomena could be found in Turkey that illustrated in section 5.3.

government spending, foreign trade)" (Lipietz, 1992: 2).

On the other hand, Amin (1994: 8) states: "the regime of accumulation includes norms pertaining to the organization of production and work (the labour process), relationship and forms of exchange between branches of the economy, common rules of industrial and commercial management, principles of income sharing between wages, profits and taxes, norms of consumption and patterns of demand in the marketplace, and other aspects of economy." Boyer, moreover, point at the regimes of accumulation which are defined as historical periods of capital accumulation characterized by the relative social stability and economic growth. Thus, regulationist approach focuses on variations of the capitalist mode of production, such as the putting-out system, manufactory, machinofacture, Fordism, post-Fordism, flexibilism, social-economic structure, and social spaces (Boyer, 1990: 33). Knudsen and Boggs (1996) and Lipietz (1992) additionally highlight, referring to the Marxian concept of 'mode of production', regime of accumulation includes both the organization of workers and applied technologies; and involve the general principles governing the labour process and the way it evolves.

Regime of accumulation must be thought related with the capitalist crisis. Regulationists often refer to the capitalist crisis in relation to 'accumulation of capital' (see section 2.1.2. in this study), and often repeat that capitalist development should not be thought without crisis. For Peet (1991), one of the scholars who believes that the crisis is continually lived in capitalist system, basic rules of capitalism is that, in anywhere and in anytime, the regulations have two basic social objectives. The first is that the production of material goods is used in order to reproduce labour power. The second is the certain of a surplus of products, intended for one of two uses: investment in new means of production or to reproducer the capitalist class. According to Peet, these paradoxes create the crisis. Also, Amin defines the regime of accumulation as follows: "The regime of accumulation refers to a 'set of regularities' at the level of the whole economy, enabling a more or less coherent process of capital accumulation" (Amin, 1994: 8). Amin's this perspective, supported by Lipietz and Jessop, can be taken as complementary to Peet's ideas.

3.3.1.2. Mode of (Social and Political) Regulation

Mode of regulation, sometimes used as '*mode of social and political regulation*', may be simply defined as a system of social and political institutions which provide a balance between production and consumption. Thus, this term generally refers to state

applications, organizations of local and locational decision-making, social behaviors – norms and habits-, and political applications. These are not directly related with production levels, but these regulations are considered to be required within the reproduction processes.

> "Mode of regulation that involves all the mechanisms which adjust the contradictory and conflictual behavior of individuals to the collective principles of the regime of accumulation. At the basic level, these means of adjustment are simply the extent to which entrepreneurs and workers are in the habit of conforming to these principles, because they recognize them as valid or logic. At another level, institutionalized forms are more important the rules of the market, social welfare provision, money, financial networks. These institutionalized forms can be state determined (laws, executive acts, public finances), private (collective agreements) or semi-public (a social security system)" (Lipietz, 1992: 2).

Amin similarly draws attention to the regulation and reproduction provided by a given accumulation regime encompassing a wide range of areas including law, state, policy, political practices, industrial codes, governance, cultures of consumption. She claims that "the mode of regulation refers to the institutional ensemble (laws, agreements, etc.) and the complex of cultural habits and norms which secures capitalist reproduction as such. It consists of a set of formal and informal rules that codify the main social relationship" (Amin, 1994: 8).

It is clearly seen in descriptions, that the idea of reproduction of capitalism, which has been never guaranteed, is placed in the heart upon mode of regulation mechanism. Knudsen and Boggs (1996) argue that reproduction of the system must be continually secured and resecured through a range of social norms, mechanisms, and institutions that help temporarily stabilize capitalism around a particular regime of accumulation. It is possible to consider this claim with Harvey's statement (1990: 119) on the market: "Adam Smith's celebrated '*hidden hand*' of the market has never been sufficient in itself to guarantee stable growth for capitalism". Thus, capitalist system has needed the tools which regulate the market and the society, which is labeled by regulationists as mode of regulation.

Lipietz explains the relationship between regime of accumulation and mode of regulation: "A regime of accumulation is the macro-economic result of the way the mode of regulation functions, with a labour process model as its basis" (Lipietz, 1992: 3). Harvey points to an enlarged relation:

> "A regime of accumulation 'describes the stabilization over a long period of the allocation of the net product between consumption and accumulation; it implies some correspondence between the transformation of both the conditions of production and the conditions of

reproductive of wage earners'. A particular system of accumulation can exist because 'its schema of reproduction is coherent'. The problem, however, is to bring the behaviors of all kinds of individuals into some kind of configuration that will keep the regime of accumulation functioning. There must exist, therefore, 'a materialization of the regime of accumulation taking the form of norms, habits, laws, regulating networks and so on that ensure the unity of the process, i.e. the appropriate consistency of individual behaviors with the schema of reproduction. This body of interiorized rules and social processes is called *the mode of regulation*" (Harvey, 1990:121-2).

3.3.1.3. Other Concepts

The key concepts of regulation theory are the 'regime of accumulation' and the 'mode of regulation'. However, "…being open-ended research programmes, regulation theories are so extended as to embrace a number of theoretical positions, each with different substantive emphases on key concepts" (Cho, 1997: 181). Elam claims that the result of the 'marriage between Marxist political economy and institutionalist tradition', - which allows to avoid mechanical explanations of capitalist development and techno-economic determinism, - bring about more concepts on the subject. These are: *Dominant industrial paradigm, mode of development*, and *hegemonic structure*.

The concept of *dominant industrial paradigm* (simultaneously known as *labour processes*), used by Jessop (1994) and Coriat (1979), refers to the pattern of industrial and work organization, and includes the nature of technologies, management rules, division of tasks, industrial relations and wage relations (Amin, 1994: 8). Jessop defines 'labour processes' more simply are: "…considered as a particular configuration of technical and social relations of production" (Jessop, 1994: 252).

The second concept is *mode of development*, used by Lipietz (1990) in particular to denote the total pattern of development within an economy, which is based on the industrial paradigm, regime of accumulation, and mode of regulation (Amin, 1994: 8). Lipietz (1992) builds this concept in order to distinguish between the nation-states as a development model, and the global order or international configuration. This concept has been used by other authors who does not include to regulation theory scholars, like Manuel Castells or Ankie Hoogvelt (see Castells, 1987 and 1997; and Hoogvelt, 1997).

The third concept is *hegemonic structure* (simultaneously used as *mode of societalization* or *societal paradigm*), used by Lipietz (1990), Jessop (1994), Esser and Hirsch (1989). It refers to a series of political compromises, social alliances and hegemonic processes of domination which feed into a pattern of mass integration and social cohesion, thus serving to underwrite and stabilize a given development path (Amin, 1994: 8). Lipietz

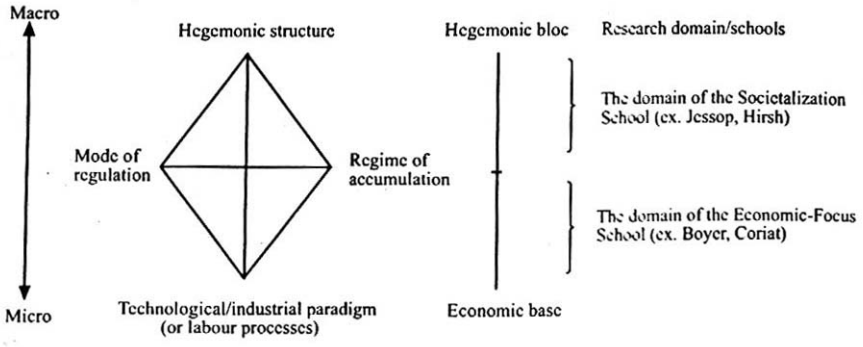
uses the term of *social bloc* to delineate a stable system of relations of domination, alliances and concessions between different social groups. A social bloc is *hegemonic* when its interests correspond to those of whole nation. For him, "the regime of accumulation, mode of regulation, hegemonic bloc and societal paradigm are all four the result of a process of conflictual historical evolution" (Lipietz, 1990: 340).

3.3.1.4. Regulation Based on Hegemonic Structure

The concept of 'hegemonic structure' is mostly used, and it, in fact, offers considerable differences within the approach from the classical French type of regulation theory, especially in the language of Esser and Hirsch (1989). Furthermore, it is sometimes identified as a different approach. Although the content of the regulation theory is adequate to contain this framework with respect to the understanding of some evidential differences within the evaluation of Fordism and post-Fordism, it would be better here to summarize this approach.

This approach can be thought as more loyal to Gramsci's original idea of Fordism and his interest in specifying the society-wide regulatory processes by which a new regime of accumulation obtains its authenticity as a hegemonic structure (Cho, 1997: 181). Cho offers a representation of the relations among labour process and industrial paradigm, a regime of accumulation, a mode of regulation, and a hegemonic structure in the figure 3.1. given below. In addition, hegemonic practices are represented in figure 3.2. where an internal concept of post-Fordism refers to the structure of capital accumulation, and these practices are articulated through a technological paradigm, industrial organization and social processes.

Fig. 3.1. The structure of regulation theories

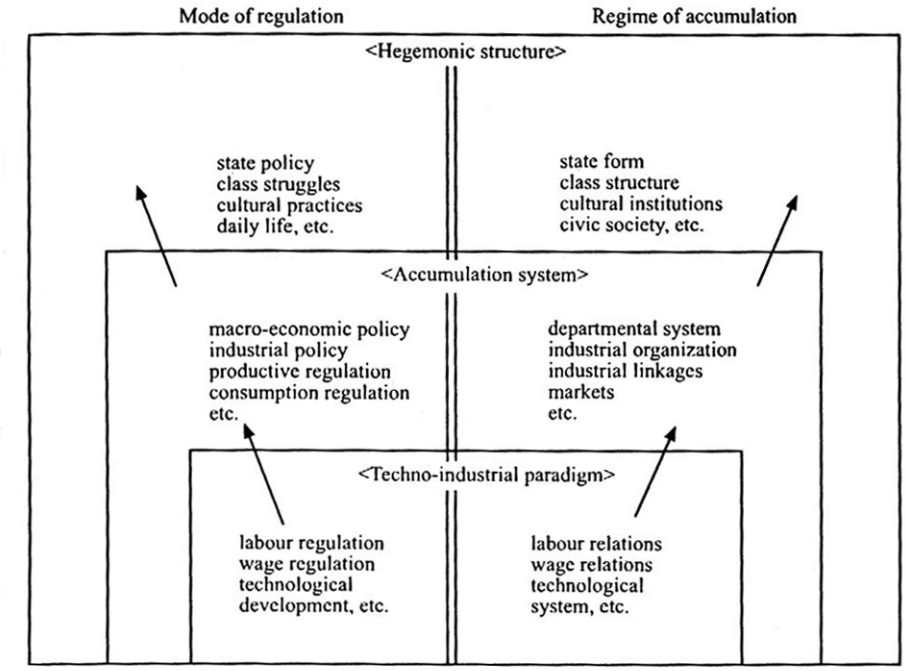


Source: Cho, 1997: 182

As Esser and Hirsch (1989: 71-93) use the term of 'hegemonic structure', they

define specific differences from French type of regulation theory and its bases of Marxian view. According to the scholars, Marxist theory reduces the complex structure of society to a simple infrastructure-superstructure model. Instead of this, Esser and Hirsch work on the assumption that "the history of capitalism on the world scale is characterized by a sequence of specific social formations, which differ from each other greatly, based on an unvarying basic structure in their forms of production and exploitation, conditions of socialization and class, as well as in the character of the state and the political rule." (Esser and Hirsch, 1989: 73).

Fig. 3.2. Articulation between a regime of accumulation and mode of regulation: a structure of capitalist accumulation



Source: Cho, 1997: 183

Esser and Hirsch express the differences provided by their concepts such as *mode of accumulation* and a *method of regulation*. Both terms, 'regime of accumulation' and 'mode of regulation', decompose classical regulation terms, by means of dominances of social impacts. In this way, they depart from the abstractly opposing of 'economics', 'politics', and 'ideology' to 'infrastructure' and 'superstructure'. The scholars use *hegemonic structure* to describe:

> "…the concrete historical connection between the 'mode of accumulation' and the 'method of regulation', which endows the economic form of capital reproduction and political-ideological reproduction of the system as a whole, under the domination of the ruling classes, and with relative durability. In this way, each capitalist development is characterized by a specific hegemonic structure, i.e. particular form of valorization and class conditions and their institutional and normative reproduction" (Esser and Hirsch, 1989: 73-4).

3.3.2. Fordist Regime of Accumulation

The fundamental differences between regulation approach and others can be seen through the evidential evaluation of the Fordist era. Postwar capitalism, which is considered by the regulation perspective as the *Golden Age* of capitalism, is a period that started by the *passive* revolution in 1950s without historical precedents when steady economic expansion was propelled by a simultaneous evolution of productivity and real wages. This passing age, with its *Golden Age* in the 1950s and 1960s, has been broadly named Fordism, and it is summarized as the age of *intensive accumulation* (continued growth of capitalist economies dependent not only on production good sectors, but also on consumption goods sector; thus, claimed to be the mass production dynamic, the detailed division of tasks and mechanization to raise productivity) with *monopolistic regulation* of the economy (workers were fully rather than partially integrated into capitalist systems as both producers and consumers). According to the approach, it was only with the postwar marriage of 'intensive accumulation' and 'monopolistic regulation' that capitalism became a universal experience and a fully integrated system. Furthermore, this marriage, conceived as a historical *mode of development*, is what the regulation perspective sees as constituting 'Fordism' (Elam, 1990: 62-3 and Amin, 1994: 9).

Jessop (1994: 253-4) summarized four differing ways used by the regulationists in their evaluations of this general structure:

1. *as a distinctive combination of labour processes*, Fordism involves mass production of complex consumer durables based on moving assembly line techniques operated with the semi-skilled labour of the mass worker. The important point is that mass production is the main source of its dynamism.
2. *as a stable mode of macroeconomic growth*, Fordism in its strict, ideal-typical sense should involve a virtuous circle of growth in relatively closed economies. This would be based on mass production, rising productivity based on economies of scale, rising income linked to productivity, increased mass demand owing to rising wages, increased profits based on full utilization of capacity and increased investment in improved mass production equipment and techniques.
3. *as a social mode of economic regulation*, Fordism involves several key features. These comprise: the separation of ownership and control in large corporations with a distinctive multidivisional, decentralized organization subject to central controls; monopoly pricing; union recognition and collective bargaining; wages indexed to

productivity growth and retail price inflation; monetary emission and credit policies oriented to securing effective aggregate demand; state-sponsored social reproduction oriented to the generalization of norms of mass consumption and provision of infrastructure and means of collective consumption suitable to a Fordist mode of growth; and state involvement in managing the conflicts between capital and labour over both the individual and the social wage so that the virtuous circle of Fordist growth can be maintained.

4. *as general pattern of social organization*, Fordism involves the consumption of standardized, mass commodities in nuclear family households and the provision of standardized, collective goods and services by the bureaucratic state. This typically implies that Fordist society is an urban-industrial, middle mass, wage-earning society.

Jessop points at the nuance that Fordism sometimes refers to the co-presence, structural coupling, co-evolution, and strategic coordination of *all four possible* Fordist phenomena (Jessop, 1994: 254). In addition, Amin states that it is a description of an *ideal-type* Fordism modeled around the US macroeconomics after the 1950s, and the regulation approach is careful to insist on the idea that Fordism in different national contexts is not envisaged as a clone of the ideal-type, rather as different combinations of Fordist and non-Fordist features (Amin, 1994: 10).

Lipietz (1990, 1992, and 1998) and Jessop (1994 and 1997) try to gather all different approaches of regulation school supported with methodological completeness, and they describe Fordism as an international system in a comprehensive manner.

Jessop (1994: 254-5) emphasizes the Keynesian welfare state, which is closely related to the form and function of Fordism. Keynesian welfare state helps to balance the supply and demand, secure stable growth, and also permit Fordist firms to secure increasing returns to scale. Thus, the state acquires an important role in compensating for the rather limited forms of microeconomic flexibility in Fordist production. Furthermore, it acquired a key role in integrating the capital and consumer goods industries and in managing the wage relations. And finally, the state has the responsibilities in trade unionism, collective bargaining, and the consolidation of big business and social partnership.

At the international level, Jessop's welfare state descriptions were strongly shaped by the development of the *Fordist mode of growth*. It actually rooted successfully the basic dynamic of Fordist expansion and governmental policies (Jessop, 1994: 255).

On the other hand, according to Lipietz (1990: 341-2) Fordist model of

development stood on a tripod. One leg was a dominancy of the conception and execution and the systematic incorporation of the know-how of technical workers in the automatic machines. This is materialized by Taylorism. The second leg was a regime of accumulation, involving growth in popular consumption and hence 'outlets', commensurate with productivity gains. The third leg was a set of norms of regulation including the conformity of employers and wage earners alike the model. In particular, Fordist mode of regulation drew upon collective agreements and the welfare state.

Lipietz's formula for the international (and of course national) is named as *Fordist compromise*. Lipietz, being one of the orthodox regulationists, bases his idea on 'Fordist regime of accumulation' - including mass production, polarization between skilled mental and deskilled operative labours, increasing mechanization, productivity and value added, stability of firms' profitability with plant used full capacity and full employment. Thus, Fordist compromise became *American way of life* – a productivist model which was 'hedonist' in that it was based on pursuit of happiness through the mass availability of a greater number of goods. Additionally, it was supported by *Keynesian politics* – including a *social legislation* which made employers to give their workers annual wage rises in line with increased national productivity, a *welfare state* which provided an advanced system of social security, a *credit money* issued by private banks though controlled by central banks where the economy was based on the available gold reserves. Finally, Fordist compromise turned into (or got based on) *American Hegemony* at the international level (Lipietz, 1992: 2-13, and 1990: 341-5).

Despite some conceptual differences, Esser and Hirsch (see the previous section for the explanations on their terms) agree with Lipietz's *hegemonic structure* which had imposed itself as internationally dominant after the Second World War under the leadership of the USA (Esser and Hirsch, 1989: 75). At the outset, it should be noted that the scholars emphasize the process of concentration and the formation of new mass industries, the development of bureaucratized and centralized trade unions with comprehensive pay agreements, and expansion of the bureaucratized welfare state. Secondly, they point at the conditions of the reproduction of the work force with the stabilization of the model of mass consumption. Thirdly, they claim that a central corporatism, which was based on social-contractual cooperation between commercial associations, trade unions, parties and state administrations, was developed and a Keynesian state interventionism supported by it. The assurance of full employment and growth, expansion of welfare states and global control of the economic process of

reproduction, supported by the extended apparatus of financial and fiscal state intervention, corporate negotiation structures and national economic prognoses, were the determining characteristics of the *Fordist hegemonic structure* (Esser and Hirsch, 1989: 76).

3.3.3. Breakdown of Fordist Accumulation

The crisis of Fordism, which has been analyzed in quite detail by the regulation approach, appeared in the early 1970s. Here, before summarizing the reasons, the basic result of the crisis in Fordism that led to the worldwide collapse of the Fordist regime of accumulation and mode of regulation mechanisms should be evaluated.

According to Amin (1994: 10), "…the slow-down of growth and recurrent recessions since the mid-1970s are seen by the regulation approach as symptoms of the crisis of Fordism, underpinning by mismatches and imbalance between its different levels of organization… It identifies four contributing factors with varying significance in different national context" (see Amin, 1994: 10):

1. *productivity gains decreased as a result of the social and technical limits of Fordism* (workers resistance to the Fordist organization of work and increasing difficulties in 'balancing' ever longer and more rigid production lines).
2. *the expansion of mass production led to an increasing globalization of economic flows* which made national economic management increasingly difficult.
3. *Fordism led to growing social expenditure* (the relative costs of collective consumption increased, because of the inapplicability of mass production methods in this area, leading to inflationary pressures and distributional conflicts).
4. *the consumption pattern has gradually changed* towards a greater variety of use values (the new demands are at odds with standardization, the basis of economies of scale, and cannot easily be satisfied through mass production methods) (Nielsen, 1991 cited in Amin, 1994: 10).

According to Lipietz, Fordist mode of development firstly entered into 'economic' crisis in advanced capitalist countries. This crisis included 'a crisis of the model of labour organization based on the fragmentation of tasks, the division between 'conception' and 'execution' and ever costly 'mechanization'. In the late of 1960s, productivity began to fall in the developed capitalist countries. With increases in real wages, the cost of the fixed capital (buildings, machines, etc.) and total workforce began to rise. Thus, allowing for inflation, firms' profitability is bound to fall. "The basic cause of these unfortunate development is to be found at the center of the Fordist labour process model: the crisis of the worker's *paradoxical* involvement where Taylorism dominates" (Lipietz, 1992: 14-5). In addition, "it was a crisis of the 'welfare state', and it was a crisis of the nation state,

incapable of regulating an increasingly internationalized economy" (Lipietz, 1994: 343). On the other hand, Lipietz points out an important nuance: "for example in France, this crisis was exacerbated by another one which preceded the economic crisis: a crisis of the societal paradigm, in its adherence to the dominant conception of progress" (Lipietz, 1994: 343). Although economic crisis emerged before the crisis of the societal paradigm, for him, the collapse of societal paradigm and impacts of rising policy of *liberal-productivity* (which includes 'intensification of the productivist techno-economic imperative', 'fragmentation of social identification', 'variety of forms of integration of the individual into the enterprise'; and 'civil society against the welfare state) has been more efficient to breakdown the Fordist accumulation model. Finally, it may be stated that Lipietz favours the increasing economic power of the newly industrialized countries, especially Japan, where it created a treat for American hegemony at the international level, and the changes within the international market accelerated the expansion of the crisis to whole world (Lipietz, 1992: 17-23). In this respect, it is possible to claim that imperialism, as which an external relation, played a regulating role for capitalism of the global center, was not created specifically (internationally) to resolve the contradictions (Lipietz, 1986 cited in Peet, 1991: 154).

3.3.4. Indefinite Times: Post-Fordism

Although the regulationists accept that a watershed has been reached within the history of capitalism, no definite vision of the future such as 'the fifth Kondratiev' – for neo-Schumpeterian – or 'flexible specialization' is advanced yet. "The shape of post-Fordism today is considered to be as ambiguous and open as the shape of Fordism was for Gramsci in the 1930s" (Elam, 1990: 65).

It is definitely true that Fordism and post-Fordism are distinguished at various levels, structural and strategic moments. Jessop states: "…a minimum condition for referring to post-Fordism is to establish the nature of the continuity and discontinuity which justifies the claim that it is not just a variant form of Fordism but does actually succeed Fordism. Without significance discontinuity, it would not be *post*-Fordism; without significant continuity, it would not be post-*Fordism*" (Jessop, 1994: 257).

According to Jessop (1994: 257), this double condition being related to the continuity and discontinuity found in one of the dimensions of Fordism, labour process, regime of accumulation, modes of societalization is satisfied where:

a) post-Fordism has demonstrably emerged from tendencies originating within Fordism but still marks a decisive break with it
b) the ensemble of old and new elements in post-Fordism demonstrably displaces or resolves basic contradictions and crisis in Fordism – even if it is also associated with its own contradictions and crisis tendencies in turn.

According to the regulation framework, indeed the crisis of Fordism does not guarantee in itself such a transition, and thus, there are three general driving forces behind the emergence of post-Fordism: *the rise of new technologies, internationalization, the paradigm shift from Fordism to post*-Fordism (Jessop, 1994: 260).

Jessop (1994: 257-60) summarizes briefly possible features of consolidated post-Fordism for regulation approach in terms of the four dimensions (which is similarly used the previous sections for explaining Fordist views):

1. *as a labour process*, post-Fordism can be defined as a flexible production process based on flexible machines or systems and an appropriately flexible workforce. Its crucial hardware is microelectronics-based information and communications technologies… Flexible specialization complexes, which have long coexisted with Fordist mass production and now seem to have won a new lease of life both materially and ideologically, can be included the new technologies which have a key role in recharged sources of flexibility.
2. *as a stable mode of macroeconomic growth*, post-Fordism would be based on dominance of a flexible and permanently innovative pattern of accumulation. As such its virtuous circle would be based on flexible production, growing productivity based on economies of scope and/or process innovations, rising incomes for polyvalent skilled workers and the service class, increased demand for new differentiated goods and services favoured by the growing discretionary element in these incomes, increased profits based on technological and other innovation rents and the full utilization of flexible capacity, reinvestment in more flexible production equipment and processes and/or new sets of products and/or new organizational forms and a further boost to productivity owing to economies of scope and constant innovation.
3. *as a social mode of economic regulation*, post-Fordism would involve supply-side innovation and flexibility in each of the main areas or regulation. Thus the wage relation would be recomposed with a polarization between skilled and unskilled workers; there would be greater emphasis on flexibility in internal and external labour markets; a shift would occur towards enterprise – or plan – level collective bargaining;

and new forms of social wage would develop.

4. *with regard to a post-Fordist 'mode of societalization'*, it is too soon to anticipate what this would involve. As yet there is no obvious predominant post-Fordist mode of 'societalization' comparable to Americanization in the Fordist era. Instead it is found an unresolved competition which involves at least Japanese, German, and American models – each of which is encountering mounting problems on its home ground.

Esser and Hirsh emphasize that the crisis of Fordism is considered similarly with the orthodox scholars of the regulation school. According to the scholars, "a new, stable, international, hegemonic post-Fordist development has so far been unable to impose itself. In a national and an international context, the situation is characterized rather by a complex mixture of alternative strategies for overcoming the crisis, which are at the same time the subject of deep political-social conflicts" (Esser and Hirsch, 1989: 76). Indeed, the regulationists generally focus on the dimensions of political and social conflicts rather than the production process.

Lipietz (1992 and 1994) emphasizes that the capitalist system needs *a new 'compromise'* in order to regulate the new accumulation regime. It is expressed that "no technological determinism will light the way. *The present industrial divide is first and foremost a political divide*" (Leborgne and Lipietz, 1992 cited in Peck and Tickell, 1994: 284). Lipietz considers post-Fordism as a first step towards historic goals: a step towards more democratic and more 'self-managed' society, a step towards the 'humanization of humankind', a step toward ecologically sustainable and macroeconomically stable model (Lipietz, 1994: 347-55).

On the other hand, Jessop, not as being optimistic as Lipietz, draws attention to the *post-Fordist state* that replaced the center of the post-Fordist debate. To Jessop, this is a transition from the Keynesian welfare state to *Schumpeterian workfare state.* "It marks a clear break with the Keynesian welfare state as domestic full employment is downplayed in favour of international competitiveness and redistributive welfare rights take second place to a productivist reordering of social policy" (Jessop, 1994: 263). Jessop conceives it as *the hollowing out of the national state*, because while the national state still remains politically important, its capabilities to project its power even within its own national borders are decisively weakened both by the shift towards internationalized, flexible production systems and by the growing challenge posed risks emanating from the global environment (Lipietz, 1994: 263-4).

According to Jessop, "the Schumpeterian workfare state could be seen as post-

Fordist in one or both of two different respects: a) because it helps to resolve significant crisis tendencies within Fordism in general or the Fordist state in particular, and b) because it helps to consolidate the emerging dynamic of a post-Fordist accumulation regime" (Jessop, 1994: 264-6). Furthermore, there are many forms of Schumpeterian workfare state, which is based on the struggle among many capitalist modes, such as neo-liberalism, neo-corporatism, neo-statism and mixed strategies (Jessop, 1994: 266-9).

On the other hand, Esser and Hirsch emphasized post-Fordist capitalism or international post-Fordist capitalism does not exist yet. "At best, there are tendencies towards it and starting points for it. But these can at least be specified on a national level and their changes of implementation and consequences can be evaluated" (Esser and Hirsch, 1989: 77).

They point at the new mode of accumulation, shaped after 1970s, represented by German practices:

1. The transition to *post-Taylorist forms of organization of production and labour,* on the basis of new information and communications technologies. This does not in any way lead to the 'end of mass production', but to a new technological constitution of it which is, however, associated with a massive laying-off of the work force, far-reaching processes of social marginalization and a strong fragmentation of the relationship between work and wages.
2. A strengthened *industrialization of the service sector*, based on the new information and communication technologies ('*hyperindustrialization*'), which lead to great many changes in service industry jobs, and radically changes the social structure of the workers (e.g. the relationship between workers and white-collar workers)…
3. A *new thrust of capitalization* which is based on the industrialization of services and a further industrialization of agriculture, which leads to an increase in forced mobility and a rapid breakdown of family relationship.
4. A *decoupling of increases in productivity and the income of the masses,* and thus transition to accumulation at a low level of growth, which is linked to an increase in differences in income and a increased differentiation of the consumer model.
5. An *'individualization' and 'pluralization of lifestyles',* based on a fragmentation of the relationship between wages and work, socialization according to information technology, consumer differentiation, increased competition for jobs whilst, at the same time, there is a relaxation in the disciplining effects of standardization waged work and socio-psychological processes of redundancy (Esser and Hirsch, 1989: 77).

According to Esser and Hirsch, the structure explained above point by point associated with the formation of a *method of regulation*. It gives "…a new emphasis to elements of monopolistic regulation, and combines them with a *stronger control of the market*, still controlled by the *governments*" (Esser and Hirsh, 1989: 77). Its characteristics are:

1. *New relationship integrating branch structure and industry on the basis of advanced production technology*, associated with strong international processes of concentration and a reorganization of the relationship between industrial and finance capital. Small businesses which are close to the market and innovative become more significant…
2. *A quantitative reduction and institutional fragmentation* of the system of social security, resulting in a further division into different categories of waged workers.
3. *The weakening of the trade unions* through mass employment processes of tertiarization, the heterogenization of working relationships and processes of social division within waged workers.
4. The formation of *new corporate forms*, which are characterized by a close interweaving between the state and industry in the technology sector, a selective inclusion of privileged sectors of the workers in corporate arrangements, (selective-decentralized corporatism) (Esser and Hirsch, 1989: 77-8).

The regulation approach has diffused to many studies in economic, social or governmental areas. On the other hand, some authors criticize the regulationists as being too undetermined and recondite. Indeed, Jessop's concept of *neo-Schumpeterian workfare state*, Lipietz's concept of *new compromise for post-Fordism*, and Esser and Hirsch's concept of *post-Taylorism* or *new trust* etc. indicates a fact said by Peck and Tickell: "We cannot yet speak of a post-Fordist 'regime of accumulation' because such a system has yet to be comprehensively identified" (Peck and Tickell, 1994: 284).

3.4. Evaluation of the Approaches

Following the evaluations and statements of the previous sections, it may be claimed that the three approaches are the most valid and referred frameworks, and have not only some differences but also some similarities. Although none of the approaches is able to define the debate on transition to flexible production by itself, it, however, cannot be possible neither to produce mixed framework nor to ignore any of them. In other words, each approach has the capability to explain at least one dimension of the post-Fordism, but is inadequate to offer complete power of understanding.

What is worth that is possible to identify post-Fordist scenarios such as flexible specialization, fifth Kondratiev, Neo-Smithian, and so on. Furthermore, it is still possible to deny post-Fordist transformation; for instance, the denial of post-Taylorism and the idea that information technology as a techno-economic paradigm that may be applied for flexible mass production in high-tech industries (see Table 3.1 and 3.2).

However, we have to find the way to provide analytical tools to understand changes in the system. Despite the inadequacies of the approaches for a complete understanding, it can be said that for this study, the language of regulation theory is heuristically used to

understand changes in capitalist system with the emerging flexible production. Because, regulation theory provides a useful framework in examining the mode of production, labour relations, public policies, technological changes and geography associated with historical periods of modern/historical capitalism. Indeed, many authors, like Knudsen (1996) and Harvey (1990), believe that regulation theory provides a number of advantages over the previous political-economic frameworks:

> "Unlike modernization and dependency theories, regulation theory is not based on limited socio-cultural experience; unlike Althusserian structuralism, social and political institutions play an active and central role in the Regulationist framework and are not strictly derivative of economic logic alone. To existing Marxian concepts of mode of production and crisis, regulationists add concepts of mode of (social) regulation, and regime of accumulation, and they substantially redefine Marxian notions of geography and crisis" (Knudsen and Boggs, 1996).

Furthermore, regulation theory enables us not to fall into mechanical explanations such as 'technological determinism'. In addition, it takes into account the social dimensions of the transitional processes. Elam supports this idea as follows:

> "Implicit in the *regulation* perspective's desire to avoid mechanical explanations of capitalist development and techno-economic determinism is the aim of breaking down the compartmentalization of economics and politics and linking them in a dynamic integrated framework. In order to achieve this aim, attention has progressively shifted away from value theory approaches in Marxist political economy towards a greater concern with the varying *social forms* of capital" (Elam, 1990: 57).

Harvey, who is one of the scientists speaking from within the language of 'regulation school', claims that it is the best approach among current perspectives especially to explain political-economic transformations. He elaborates on "recent events as a transition in the *regime of accumulation* and its associated *mode of social and political regulation*" (Harvey, 1989: 121). Additionally, he emphasizes that although there are lots of signs and tokens of radical changes in labour processes, in consumer habits, in geographical and geopolitical configurations, in state powers and practices, people still live, especially in the West, in a society where production for profit remains the basic organizing principle of economic life (Harvey, 1989). In order not to fall into such a situation, we have to take into consideration Harvey's following argument: "We need some way, therefore, to represent all the shifting and churning that has gone on since the first major post-war recession of 1973, which does not lose sight of the fact that the basic rules of a capitalist mode of production continue to operate as invariant shaping forces in historical-geographical development" (Harvey, 1989:121).

In other words, to use regulation school's conceptions enables one to handle the complex relations among economic structure, social and cultural forms, habits and political implications.

The capitalist system includes a strong social control based on the control of workers physically and mentally, and we must pay attention to this area in order to explain how flexible production changes the control mechanisms:

> "Education, training, persuasion, the mobilization of certain social sentiments (the work ethic, company loyalty, national or local pride) and psychological propensities (the search for identity through work, individual initiative, or social solidarity) all play a role and are plainly mixed in with the formation of dominant ideologies cultivated by the mass media, religious and educational institutions, the various arms of the state apparatus, and asserted by simple articulation of their experience on the part of those who do the work" (Harvey, 1990: 124).

On the other hand, there is an important question about regulation mechanisms: Are they valid for all over the world and all over the times? Knox and Pinch try to answer this question:

> "A crucial feature of the regulation approach is recognition of the fact that these regulative mechanisms vary considerably from nation to nation. However, it is argued that over time they tend to show certain similarities in different places. Furthermore, if we view economic systems from a broader perspective, it is argued that much more general sets of arrangements can be seen which serve to link production and consumption" (Knox and Pinch, 2000: 32).

Finally, it is worth noting the point made by Myung-Rae Cho who considers the example of South Korea. Cho argues that South Korea can be classified by using different concepts such as 'peripheral Fordism' by Lipietz (1987), 'the virtuosity of successful post-Fordism' by Leborgne (1992), and 'paradigmatic exemplar of post-Fordism' by Jessop (1992). Interestingly, these three authors are placed within the regulation school. Their ideas flourished from the same origin, that is, the Parisian School but they do not agree upon whether South Korea is to be classified as a post-Fordist country, or not (Cho, 1997: 180). This difference basically depends on how to interpret post-Fordism. Although regulationists have the strong and valid methodology, they are often separated from each other due to their different interpretations. These differences stems fundamentally from their concepts and the degree of attentions paid to different dimensions of the phenomenon.

Table 3.1. The geography of business organizations and (international) production: a summary review.

	Post-Fordist flexible specialization debate	Regulation theory
Causal explanation	▪ Emergence of flexible production systems replaces Fordism ▪ Vertical disintegration and agglomeration economies lead to new industrial spaces and districts	▪ Contradictions in capitalism lead to crises in different phases ▪ Resolution of crises from a harmony between regime of accumulation and mode of regulation ▪ Breakdown of Fordism
Analytical category	▪ Production systems: Fordism and post-Fordism ▪ Transaction costs and scope economies ▪ Territorial complexes	▪ Social and economic transformations ▪ Capitalist mode of production ▪ Modes of regulation
Useful dimension	▪ Structures of capitalism ▪ Relations of production ▪ Socio-cultural change and spatial manifestations	▪ Institutional mechanisms: the role of the state ▪ Historical specificity ▪ Integration of production with consumption sphere
Criticism	▪ Epistemological: ideal-typical models; unduly dualism ▪ Theoretical: role of the state neglected; limited organizational forms; question of flexibility; unclear spatial relations and outcome of flexible production systems ▪ Methodological: microeconomic analysis; extensive research; incompatible scale of analysis Empirical: no abrupt break from the past (Fordism)	▪ Epistemological: lack of explanation of the 'workings' capitalism; incompatible levels of analysis ▪ Theoretical: inadequate conceptual sensitivity to reality; ▪ Ambiguity of ‘regulation'; neglect of space and consumption ▪ Methodological: misuse of class; statistical analysis ▪ Policy: little policy advocacy, neo-Keynesian outlook

Source: Erendil, 1998: 58

On the other hand, it should be noted that the regulation approach has established a coherent perspective encompassing historical, functionalist and logical dimensions. The arguments creating the framework enable one to examine the capitalist development in relation to its permanent crisis-ridden nature and contradictory character, its dependence on conflicting relations within social classes, business, government, and society.

Table 3.2. A comparison of the main characteristics of the Fordist and the post-Fordist production systems

	Production systems	Intrafirm relations: regime of accumulation	Interfirm relations: regime of accumulation	Institutional features: mode of regulation	Spatial manifestations	General impact
Fordism Historical period: 1930s-1960s	Industrial sectors: cars, machinery, household appliances Examples: northeast of USA; Midlands of UK; Rhine-Ruhr of Germany; Northwest of Paris	1. Mass-production forms: the search for internal economies of scale (Henry Ford type): ▪ process-flow and assembly-line methods ▪ technical division of labour (Adam Smith type) standardization of outputs 2. Longer life-cycle of products 3. Deskilling of labour: separation of mental from manual work 4. Scientific management: Taylorist divisional hierarchy and labour control	1. Horizontal vertical integration 2. Market disposition and fierce interfirm stand-alone competition and collusion 3. Alternatives of organization: markets and hierarchies 4. Factories between upstream suppliers and downstream fabricators, which use batch-production methods	1. Keynesianism: central government manipulation of macroeconomic variables 2. Welfare state: social control by means of welfare legislation 3. Strong unionization of the labour force: wage bargaining to increase mass consumption 4. Domination of USA financial and military power 5. Emergence of oligopolistic transnational corporations: growth of corporate power	1. Rise of great manufacturing and industrial regions 2. Regions as growth poles 3. Highly uneven sectoral and spatial development 4. Spatial division of labour: space of places 5. Worldwide sourcing: economic expansion abroad	1. Modernist era: new rationalized, commodified, modernist and populist democratic society 2. Industrial growth and economic development 3. Greater power to producers and business 4. Social and cultural changes: ▪ mass consumption ▪ family privatized 5. New politics of place

Table 3.2. Continued

	Production systems	Intrafirm relations: regime of accumulation	Interfirm relations: regime of accumulation	Institutional features: mode of regulation	Spatial manifestations	General impact
Post-Fordism Historical period: 1970s-	Sectors (propulsive industries): craft (e.g. clothing)', high-tech (e.g. electronics); advanced services Examples: large metropolitan regions; Silicon Valley of USA: third Italy: scientific city of South Paris: New York; Tokyo and London; NUEs (Hong Kong, Singapore)	1. Flexible production forms: search for external economics of scale and scope (Hanol type): ▪ general-purpose equipment and labour processes ▪ smaller individual units ▪ greater product differentiation ▪ programmable and automated ▪ customized products ▪ social division of labour 2. Interconnected units of economic activities 3. Reskilling of labour: need for their redeployability 4. Decentralized management: greater degree of integration	1. Vertical disintegration: ▪ smaller and specialized firms ▪ growth of subcontracting ▪ substantial networks of firms 2. External economies of scale and scope: ▪ strategic interdependence ▪ multiple transaction relations 3. Extension of production processes: ▪ extended social division of labour ▪ supply-side innovation and flexibility 4. Rise of informational economy	1. Post-Keynesian/ neoconservative 'warfare' stale (Reageanism and Thatcherism): ▪ fiscal policies: high military and defense spending ▪ self-reliance: competition ▪ entrepreneurialism 2. Fluid internal and external labour markets: rapid labour turnover and job switching: ▪ relaxed internal rules of work ▪ new forms of social wage ▪ flexible employment relation ▪ reduced labour-union power ▪ segmented labour markets 3. Deregulated world financial and credit systems: ‘rootless’ capital and money	1. New industrial spaces and territorial complex: ▪ industrial and technology districts ▪ spatial agglomeration ▪ space of flows 2. Revitalization of pre-existing clusters: reclaiming localities 3. Outward expansion of industrialization: regionalization of production 4. Time-space compression: ▪ continual recalibration of the meaning of time and space ▪ expansion of spatial horizons of decision	1. Postmodernist era: fragmentary and differential trajectories 2. Economic and social restructuring 3. Different social and institutional order: ▪ rise of middle class ▪ business presence in local politics ▪ dual labour markets ▪ weak labour unions ▪ dual city phenomenon 4. Local and regional development 5. Selective development in the third world

Source: Yeung, 1994 cited in Erendil, 1998: 68

Chapter 4

DEBATES ON THE CITY & THE REGION

The drastic changes and transformations that we have been experiencing for past several decades are subject to a dialectics between space and the activities on it. It should be noted that the city and the region are the active objects of these processes. Neither Fordism nor post-Fordism has been brought about without reference to space, place, geography, and location.

The emerging conceptions of the 'city' and 'region' have direct links to the debates and issues of Fordism and flexible production. Among the scholars it has widely been a common concern to deal with space in a way to seek for what it provides and how it affects, rather than what is provided on it and how it is affected. Such a transition should also be seen as a fortunate effort thrived into the task of placing geography in its right context and place. But there remains one crucial point that is of special importance. Spatial theories are still interpreted as the additional explanations of the reality of the world we constitute and materialize while we live in (with) it. To clarify, it should be noted that the social theory builds the foundations and formulates the analysis in a predominant manner, and then comes the spatial theory on the defined grounds of thinking.

In the modern capitalism, economy has become so fundamental in order to explain urban development and urban growth. As different from pre-modern (pre-industrial) period, "…the development of industrial capitalism shifted the balance between rural and urban, fostering the industrialization – urbanization nexus… Both the scale of production and international trading were unprecedented, as was the scale of urban growth in the core nations of the world economy" (Paddison, 2001: 241).

It is believed that current changes in economic and urban structures are related to the emergence of flexible economies. Furthermore, the success of the new regime of accumulation tightly depends on the spatial patterns of the cities and the regions in Fordist era. The main relationship that support this claim is that the cities are 'uniquely efficient motors of capital accumulation' during the industrial capitalism which may be explained by considering the fact that they have created environments for the economies –scale, agglomeration, external, etc.–, the innovations, and entrepreneurial. Thus, the restructuring processes in the cities accompany with the restructuring in the world economy. In short, this chapter aims to summarize the debates on the city and the region.

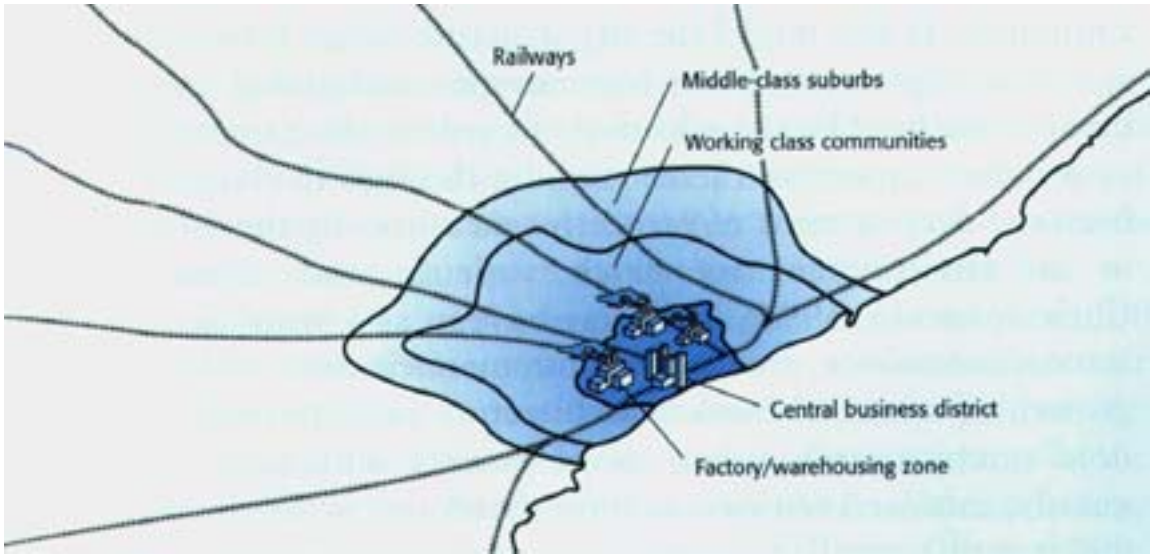
4.1. Fordism and the City

The relationship between Fordism and the city can be interpreted as being perfectly determinants of each other. The effects of the regime of Fordism on productive, social and economic structures are represented in the cities of the Fordist era. Indeed, Fordist accomplishment (or 'compromise' in the Lipietz's (1992) term) as an accumulation regime to remember the 'Golden Age', which is based on this complete structure, as it is defined by 'regulation school', and the concept of '*city*' should not be distinguished from this regime. It may be said that Fordism determined not only the regulation in Fordist plants, but also whole building environment, especially cities.

> "The image of the Fordist town was characterized by strong agglomeration processes, the standardization and industrialization of construction, the nuclearization of the family and far-reaching processes of social disintegration, resulting in the erosion of the traditional socio-cultural milieux (e.g. workers' settlements)… large-scale imposition of the car, extreme spatial-functional differentiations developed, characterized by suburbanism, the formation of satellite towns, the depopulation of the inner cities, the dying out of smaller production and business operations, whilst at the same time stores and discount supermarkets blossomed in parts of the inner city" (Esser and Hirsch, 1989: 79).

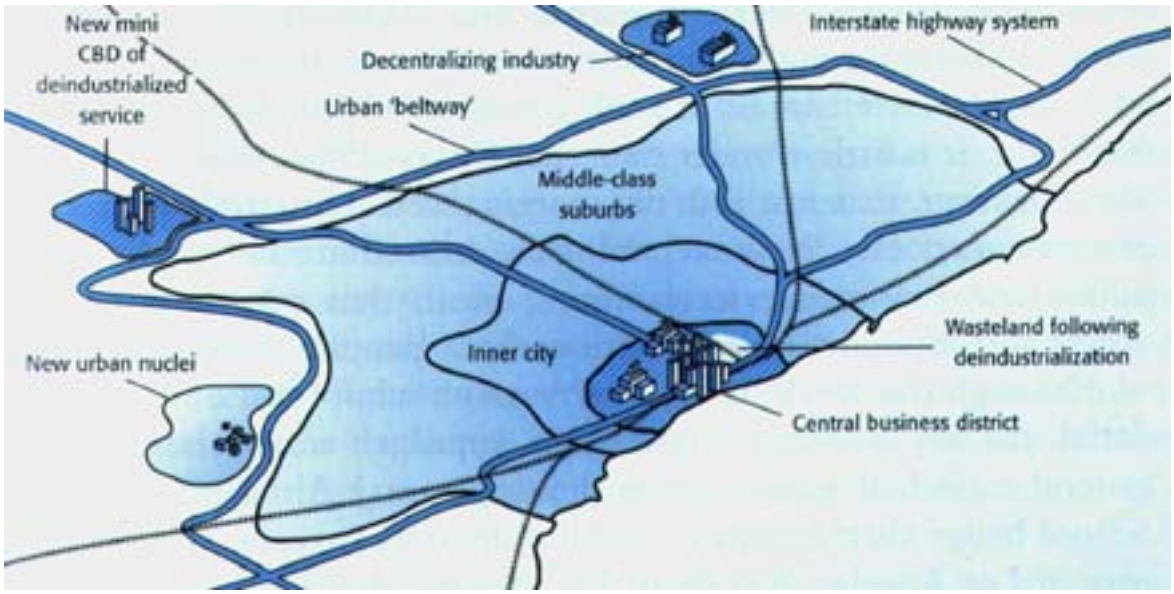
The rationale for the rapid growth of industrial towns and cities in Europe and North America was the cooperative advantage of scale economies. The large-scale industrial plants required the assembly of large labour forces, much of them drawn from rural areas, and the rates of population growth were rapid, often 10 percent per year at peak growth rates (Lever, 2001: 273).

Fig. 4.1. The classic industrial city, circa 1850-1945



Source: Knox and Pinch, 2000: 69

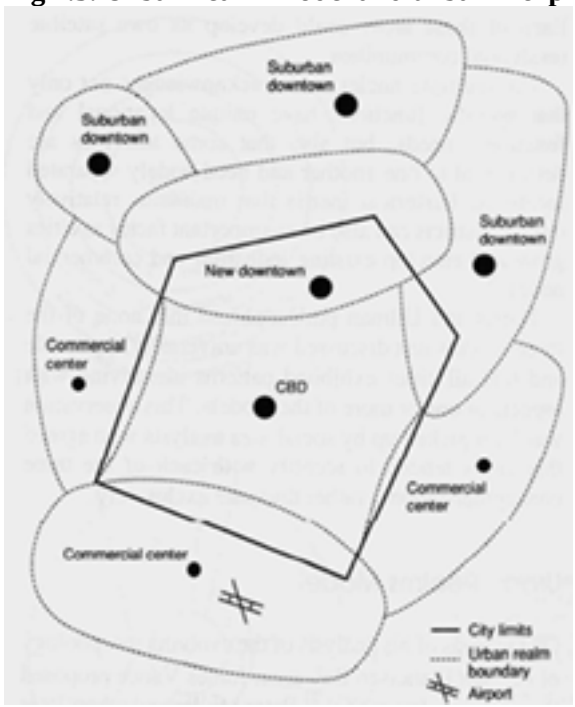
Fig 4.2. The Fordist city, circa 1945-1975

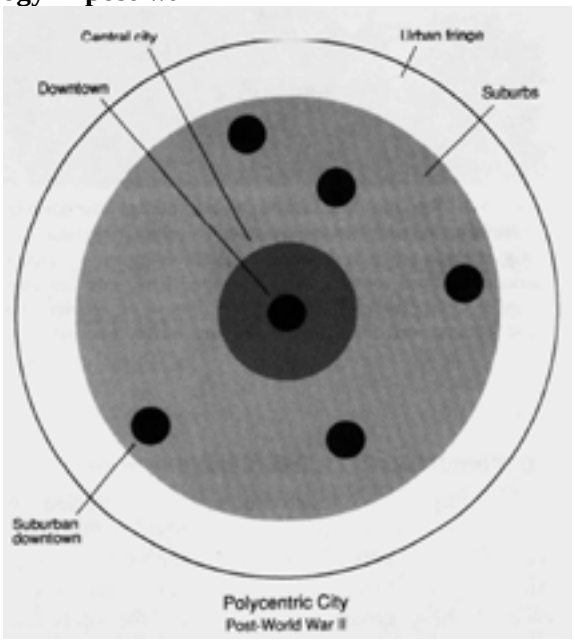


Source: Knox and Pinch, 2000: 69

The Fordist city can be resembled a realm in some sources that abstracted below figure 4.2. "The key element of the realms model is the emergence of large self-sufficient suburban sectors, each focused on a downtown independent of the traditional downtown and the central city" (Knox and Pinch, 2000). From this model, it can be easily understood the automobile on urban form. The automobile provides the possibilities to create *a city with several downtowns that each emulate the business mix formerly associated with the traditional downtown* that caused the post-war II polycentric city (see Fig.4.3.).

Fig 4.3. Urban realm model and urban morphology in post-war II





Sources:

On the other hand, the fundamental characteristics of the Fordist town were based on not only production systems, but also ways of life: "Life in the nuclear family, standardized labour, television and cars became the basis of a new model of life and consumption and structured urban space. The 'uncongeniality' of the standardized towns, whose spaces were differentiated according to function, became a central issue for critical urban sociology" (Esser and Hirsch, 1989: 79). Under the 'Fordist compromise', furthermore, administrative applications (including both state and local governments, and subsidy policies) supported occurrence Fordist town.

Albertsen (1988) points out the relationship between *the spatial dynamic of Fordist accumulation* and *existing regional concentration of industrial production*: "Large and growing firms in search of economies of scale were central processes in a process of spatial concentration of production, special function firms, collective means of production, and collective consumption which, once achieved, became preconditions for further industrial development" (Lapple, 1978 cited in Albertsen, 1988: 345). This process is particularly related to a 'center-periphery structure' which based on "…high employment, high wages, and in-migration of labor concentrated in central industrial regions, and unemployment, low wages, and out-migration concentrated in the surrounding peripheral areas" (Albertsen, 1988: 345). The complex relations between center and peripheral areas are evaluated in selected production activities reaching to technological maturity: "they were often centralized to branch plants and moved to the periphery in order to exploit cheap, stable, and unskilled labour" (Albertsen, 1988: 345).

As the concept of '*industrial capitalism*' is used in place of '*modern capitalism*', the concept of '*industrial city*' is generally used in place of '*modern city*' or '*Fordist city*'. The debate on the industrial cities, in the Fordist era, particularly emphasized *decentralization* processes. One of the fundamental characteristics of the metropolitan areas and industrial cities of the center regions are that "a process of decentralization of industrial production and residence to the suburban areas gained momentum" (Albertsen, 1988: 345). This process caused reshaping both '*inner cities*' and '*suburb cities*': "In the inner cities, working-class neighborhoods broke up and were left to the urban poor, and the factory was replaced by commercial and office buildings, cultural centers, hospitals, and universities. In the suburbs the Fordist model of consumption found its supporting pillars in the nuclear family, the home, and the car (Walker, 1981)" (Albertsen, 1988: 345-6).

In his consideration of late-Fordism as a transitional period of capitalist development, Albertsen (1988) points to the consequences of rapid deindustrialization.

"Plant closures, technical rationalizations, or decentralization of production out of the regions afflicted the highly urbanized regions of Taylorized mass production, organized workers, developed infrastructure, and welfare provisions, and left then behind with falling levels of employment, increasing social problems, and local government fiscal crisis" (Albertsen, 1988: 346).

This structure caused serious social conflicts such as one that "the process of turning residential areas near the city into slums as a preliminary step towards commercial use for predominantly 'tertiary' functions, the extension of inner-city branches of industry, the loss of infrastructure and the expulsion of the population from deep-rooted residential areas and the drastic reduction in *quality of life*" (Esser and Hirsch, 1989: 79).

4.1.1. Main Characteristics of The Fordist City

It is known that although mass production dominated in all advanced countries after Second World War, it existed in fact with the development of the very earliest industrial cities. But Fordism helped to consolidate the classic landscape of *'smokestack' cities*" (Knox and Pinch, 2000: 33). After revolution of Henry Ford, the city life had to integrate to Fordist regulations, in other words, space had to be a component of Fordist production and lifestyles. In postwar period, it is materialized in the USA and Europe: "This integration of functions in an elaborate hierarchy was a key organizing principle of Fordism (known as *vertical integration*) and helped to consolidate the size and influence of the classical industrial cities. However, it was the product, as well as where it was produced, that transformed cities" (Knox and Pinch, 2000: 33).

One of the main characteristics of the Fordist accumulation was based on equilibrium between 'mass production' and 'mass consumption'. A result of this integration was seen – of course – in automobile industry. Soon after transition to mass production techniques in Henry Ford's plants, e.g. River Rouge Plant, Ford's workers reached the wage level to afford a car: "Thus, it was on the west coast of the United States in the developing city of Los Angeles that a newer, lower-density, sprawling, suburban city form began to emerge, facilitated by the relative ease of personal mobility afforded by the automobile" (Knox and Pinch, 2000: 33). The emergence of the mass consumption as predominant in society, "production enjoys economies of scale in the form of mass production, which is functionally decentralized and often multinationally organized and controlled" (Pacione, 1997; Wallace, 1990 cited in Lever, 2001: 273). Both processes,

emerging the suburban cities and decentralization of the production, appeared with a tendency towards *homogenization.*

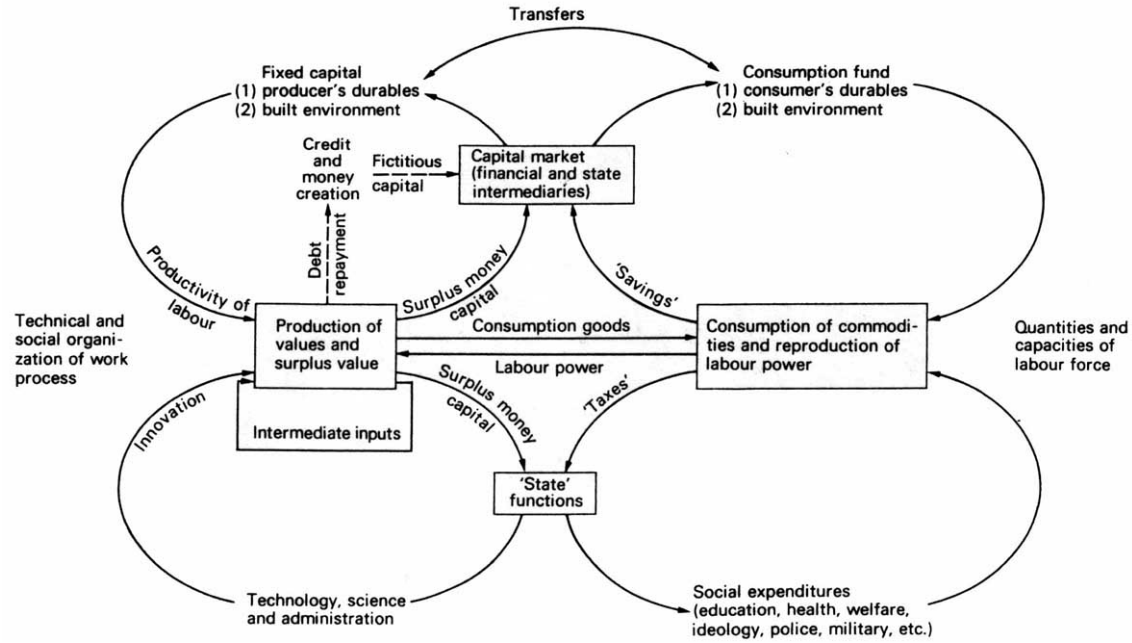
The transformation in the cities accelerated in Golden Age, especially in the US. The economy of the U.S. was greatly provoked by governments which spent on the interstate and intra-urban highway systems. These highway systems give opportunities to urban dwellers to decentralize out of inner-city areas into surrounding low-density suburban areas. "This resulted in greater distances between home, work and centers for shopping and therefore greatly boosted the automobile industry. The construction industry was also kept busy buildings new suburban dwellings as well as roads and there was also huge demand for domestic consumer products such as televisions, cookers and fridges" (Knox and Pinch, 2000: 34).

An important component of the Fordist capitalism is the labour market that should be evaluated with the increased use of trade unions and collective bargaining that brings increasing income conversion. Politics had to aligned with occupation and organized labour, and the regional and class dimensions, which were achieved by using Keynesian-liberal collectivism: "In terms of the space economy, pronounced regional specialization of early industrialization become overlaid by new spatial divisions of labour based on functional decentralization and specialization: regional unemployment disparities remain relatively stable, although industrial and economic structures may converge" (Gordon, 1980; Martin, 1988 cited in Lever, 2001: 273).

Harvey carries the debates to more clarified areas. He states, "The transformation of spatial configurations occurs through the continuous leap-frogging of different kinds of capital and labour power blessed with very different powers of mobility. And there is, in this, no danger provided that complementary is achieved within a requisite time-span" (Harvey, 1982: 408-9). In other words, Harvey argues that massive process of suburbanization represented a shift from the '*primary circuit*' (investment in the production system) into the '*secondary circuit*' (various consumption funds including the built environment) (see fig.4.4.).

> "This was extremely useful for the capitalist *'commodity fetishism'* – an obsessional tendency for households to compete with one another and display their wealth through consumer products. In addition, since most families needed to raise a mortgage to purchase their properties, it was argued that this tended to stabilize the system, producing a class of dept-encumbered persons who were unlikely to petition for radical change" (Knox and Pinch, 2000: 34).

Fig. 4.4. The flow paths of capital flow



Source: Harvey, 1982: 408

Basically, there have been two approaches on what suburbanism is: first interpretation of *decentralization portrays suburban families as hapless dupes of an economic system*. This view is supported by Harvey's interpretation, smacks of functionalism, *attempting to 'read off' the causes of suburbanization through its assumed effects*.' Another approach seems more optimistic as follows:

> "Therefore stress the role of human agency and the ways in which capitalism satisfied the needs of people for material goods together with their desire to escape from overcrowded inner-city environments.' In other words, it may be said that second view focuses on the human choices opposite to be concentrated functionalism, perhaps labeled as *voluntarism*. It assumes that 'people have complete freedom to do what they wish free of all economic constraints… Nevertheless, whatever weight is given to these various factors, it is clear that Fordism and suburbanization were closely interconnected in US cities" (Knox and Pinch, 2000: 34).

Out of the U.S., in European cities, there has been much less suburbanization:

> "Although one might argue that cars such as the German Volkswagen Beetle, the French Citroen 2CV, the Italian Fiat Topolino and the British Morris Minor, together with the various autobahn, autoroute, autostrada and motorway systems of Europe, were of similar significance to the Model T and the interstate highway system in the United States, it was the development of the *welfare state* and *welfare statism* that helped stimulate demand in European cities" (Knox and Pinch, 2000: 34).

Welfare states were prone to help to ameliorate uneven spatial development in European cities than the U.S. cities. In British cities, for example, it can be seen over state-

provided housing (known as local authority or 'council' housing) in suburban areas as well as in inner-city renewal areas. On the other hand, in continental European cities although less number of housings was offered directly by the state and a greater reliance upon state-funded, social housings were privately provided. Furthermore, "continental European cities have, in general, tended to have a much higher proportion of multi-storey dwellings than British cities" (Knox and Pinch, 2000: 35).

In short, Fordism may be equated with the success of *large cities* and *large city systems*. The predominant modes of production required locations in large cities, not just as the homes of large industrial workforces but as the providers of the most advantageous sets of externalities. Large cities meant large local markets and an extensive array of advanced producer services, including data processing, financial and legal services education, personal and ancillary services, access to political decision makers. As the world economy globalized, the large cities remained the key locations in corporate structures and on informational networks (Clark, 1996). The success of Fordist production systems was equated with the success of large cities as economies, and debates on 'the urban problem' revolved around the most effective ways of slowing their growth." (Lever, 2001: 274)

When the collapse of Fordism emerged, classical Fordist town became inadequate to afford new spatial demands of flexible production. The center-periphery structure of Fordism broke up, while mature corporations, began to decentralize units of standardized manual production to dispersed localities also within the advanced nations, while concentrating managerial and financial functions within large metropolitan areas.

> "Regions, in the sense of concentrations of different industries within different areas, began to dissolve, and the corporations acquired the ability to forcing widely separated localities into competition with each other for nationally and globally mobile jobs. To use… the tropes of postmodern discourse: regional production space 'imploded' into 'localities' (Urry, 1981) and national productive space 'exploded' into a complex global space of interlinked localities, dominated by a few world centers of management and finance" (Albertsen, 1988: 346-7).

4.2. Post-Fordism and the City

The last two decades have seen a transformation in the composition of the world economy, accompanied by the shift to services and finance, which have renewed the importance of major cities: "Spatial expansion became a necessary prerequisite to overcome the contradictions inherent in [the Fordist] mode of development… The resulting spatial division of labor from the core to the periphery, both within and between nations, resulted in a hierarchically structured population pyramid and spatially segmented

labor markets" (Mouleart and Swyngedouw, 1989: 62).

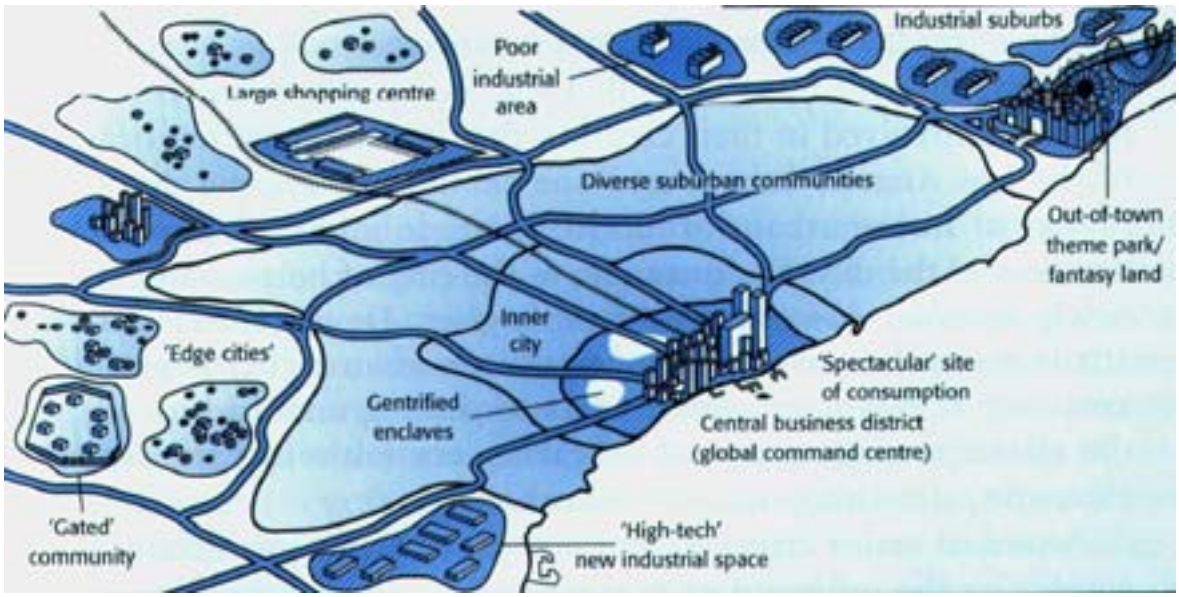
To begin with, the common characteristics of the studies that focused on the '*urban transition*' from Fordist city to post-Fordist city should be listed by referring to Sternberg (see Lever, 2001: 274).

- There is a high value placed on knowledge or information within the process of wealth creation.
- The postmodernist trend will extend consumerism into all areas of private and social life, including aesthetics, art, leisure, and pleasure.
- Post-Fordism is characterized by global interdependence on production, finance, distribution, migration and trade.
- A new mercantilism in which national coalitions between industry, government, and labour seek to develop strategic comparative advantages as a basis for national prosperity.
- The growth of multinational enterprises and financial institutions run by a new class of global executives and professionals will shape consumption and production patterns.
- Flexible specialization, characterized by new principles of production, specialist units of production, decentralized management and versatile technologies and workforces, will become the new system of production.
- New social movements will come into being, humanizing capital with greater concerns for ethnic groups, for women and for the environment.
- There is increasing rejection of the technocracy and consumerism which so characterized Fordism, and the growth of communitarian, social and religious values and traditions by way of replacement.

In relation to their description of the 'Fordist town', explained in below section, Esser and Hirsch (1989: 79) argue that the crisis of Fordism was also a crisis of the Fordist town emphasizing the changes and transformations within *the arrangement of spaces and the spatial matrix of social conflicts*'. According to Esser and Hirsch "…spatial, social and political structure the 'post-Fordist' town will finally adopt. It is likely that it will be far more varied than the standardized type of town marked by Fordism, because of the social and regional heterogenization process" (Esser and Hirsch, 1989: 93). Furthermore, the authors emphasize the more trueness of the fact that "…the social-spatial structure of towns is always the result of political-social power relations, conflicts and compromises under given economic-structural conditions, which vary historically and in the context of particular struggles" (Esser and Hirsch, 1989: 93).

The key constituents of the post-Fordist city based on the economic changes that have seen the reduction in importance of scale economies and hence the need for large plants, in large cities. This has been accompanied by the growth of the small enterprise sector, requiring less labour employed more flexibly, and the transition from employment in manufacturing to employment in services. Higher levels of information, managerial changes such as just-in-time systems, and disintegration of vertical production 'filieres' or chains of production in single or multiple establishments will impact the urban hierarchy in different ways (Lever, 2001: 275).

Fig. 4.5. The post-Fordist metropolis



Source: Knox and Pinch, 2000: 69

One of the most important arguments in the debates on the post-Fordist city is about urban scale economies. Henderson points out fundamentally the determinative relationship between cities and scale economies: "Scale economies are the basis of urban agglomeration – the reason we have cities" (Henderson, 2001: 243). This simple sentence indicates why the urban studiers and urban planners interest in scale economies. The importance and nature of scale economies are: "…critical in determining individual city sizes, what cities do, the size distribution of cities, the possibility of multiple equilibria in location patterns, the growth process of cities, inequality among residents of different cities, and the efficiency of variety of public policies trying to influence the geographical organization of economic resources" (Henderson, 2001: 243). Current debates on the post-Fordism is underpinned this description. The reduction in the importance of the scale economies has been commonly pointed out. Furthermore, some authors claim that it is

related to the *'end of the cities'*.

The assertion of the 'end of the cities' is evaluated more detailed by Sassen:

> "At the end of the 20th century, massive developments in telecommunications and the ascendance of information industries led analysts and politicians to proclaim the end of the cities. Cities, they told us, would become obsolete as economic entities. With large-scale relocations of offices and factories to less congested and lower-cost areas than central cities, computerized workplaces can be located anywhere: in a clerical 'factory' in the Bahamas or in a home in the suburbs. The growth of information industries means that more and more outputs can be transmitted around the globe instantaneously. And the globalization of economic activity suggest that place –particularly the type of place represented by cities—no longer matters… National and global markets, as well as globally integrated operations, require central places where the work of running global systems gets done. Furthermore, information industries require a vast physical infrastructure containing strategic nodes with a hyper-concentration of facilities. Finally, even the most advanced information industries have a production process that is partly place-bound" (Sassen, 2000: 1).

Globalization and improving telecommunication systems have been often examined in parallel with post-Fordism. With this respect, Albertsen (1988: 350) identifies three types of post-Fordist cities:

1. 'Postindustrializing' cities with population growth, concentration of corporate management and related service activities, gentrification by the service class and the rise of 'urban schizophrenia' (Castells, 1985) due to the simultaneous coming of a new lumpen proletariat in low-paying manufacturing, service, and office jobs,
2. Deindustrializing cities continuing the decline begun in the late-Fordist period,
3. The new urban zones of the high-technology, industrializing regions, where highly remunerated professional are developing the Fordist model of suburban life into perfection on the back of low-wag deskilled workers (Saxenian, 1985; Storper and Scott, 1988).

According to Peck and Tickell (1994: 307) "given the existence of severe reservations about the sustainability of flexible accumulation… It is impossible to make any conclusive statements about the spatial logics of post-Fordism". Emphasizing the substantial shifts in the spatial ordering of the world economy under way, the authors point to an understanding of these processes in terms of an 'accelerating uneven development', rather than in terms of a new 'global-local order' (see Table 4.1).

Peck and Tickell state that *the crisis of Fordism and the search for a new institutional fix are both intrinsically geographical problems*.

> "The collapse of Fordism-Keynesianism led to a crisis in which the nation state was decentered and its capacity to intervene eroded. In the vacuum created by the weakening of the nation state, a new set of global-local and almost by definition unstable. This alignment

of global-local relations –which Swyngedouw (1992) has termed 'glocalization'– is not so much a new spatial order as a continuing spatial *dis*order. It is the geography of the unresolved crisis. Resolving the crisis, is, first and foremost, a supralocal matter: it is about overthrowing the 'jungle rule' of neo-liberalism at the level of the global economy and international political relations" (Peck and Tickell, 1994: 282).

Table 4.1. Geographies of 'jungle law'

Spatial scale	Regulatory 'problem'	Putative solution
International	Unstable and volatile financial system, neo-liberal in orientation, undermines national economic intervention and global spatiality	A new hegemony? Unlikely to emerge. Triadic hegemony? Potential in European Union, North American Free Trade Area and Japan / ASEAN. Supranational institutions which reassert control over money/finance? Potential in Bank for international Settlements or World Bank but must be realized by democratization and eschewing of neo-liberalism. Financial cooperation and common currencies (i.e. European moves to single currency) diminish advantages of speculative global financial system, but render weak countries more vulnerable to external economic conditions.
	Neo-mercantilism and worsening terms of trade for Third World induces significant risk in trading system. Uruguay round of GATT heralds neo-liberal trading regime, while maintaining relative protection of Anglo-Saxon financial sector.	Enhanced role for GATT, as the International Trade Organization originally envisaged by Keynes? Unlikely to emerge. Formation and enhancement of regional trading blocs? Provide some protection for those within strong blocs, but detrimental impact on poorer and weaker states.
	Regional trading and political blocs organized along neo-liberal lines. Creates supranational instability and exacerbates uneven development.	Spatial redistributive policies to ameliorate worst effects of uneven development (at nation state and supranational levels).
	'Regulatory arbitrage', where corporations pressurize states to develop minimal restrictions, and 'regulatory undercutting' where states attempt to woo capital by imposing low standards (e.g. the British 'opt-out' of the European Social Chapter).	Supranational institutions to assert common minimum standards across a range of areas (i.e. European Commission on 48 hour working week; minimal capital adequacy standards). Development of high-skill rather than low labour-cost national base.
National	Mass unemployment.	Renewed national Fordism-Keynesianism? Unlikely to emerge and changed international and productive environments mean that unable to form basis for new period of sustained growth. Supranational Keynesianism allied to 'flexible production system'?
	Neo-liberal regulation at national level unable to contain its geographical contradictions.	Policies to stimulate growth in lagging regions and contain growth in core. Regional policy organized at national or supranational level?
	'Hollowing out' of the nation state,	Supranational regulation to prevent pressures

	undermines legitimacy of nation states unable to meet social welfare objectives.	to minimize standards? International neo-liberalism stimulates 'regulatory undercutting' and therefore needs to be overcome.
		Progressive fiscal structures to forge new social compromise?
Local	Zero-sum competition between localities and regions encourages geographically uneven undermining of social standards and fragmentation.	Embedding of capital within localities to stimulate a spatial fix, perhaps through provision of training or technological infrastructures.
		National and supranational state activities to limit wasteful competition?
	Local growth coalitions are inherently unstable and short-terms.	Democratization of growth, emphasizing growth which benefits all inhabitants of region. Reduced emphasis on growth coalitions as conduit for development. Enhanced power for local and regional governments.
	Local states increasingly seen as central to economic regeneration but powers of intervention are limited.	Increased local political autonomy and power within wider structural frameworks.
	Growing links among successful local states detrimental to weaker areas.	National and supranational stimulation of regional development to enhance position of less developed regions.
	'Flexible' labour markets unable to contain contradictions.	New, interfirm modes of skill formation and labour regulation reformed state regulation.

Source: Peck and Tickell, 1994: 308-10.

4.2.1. The Post-Industrial City

Concepts '*Post-industrial city*' and '*post-Fordist city*' are used in place of each other for some scholars, which is definitely wrong. The post-industrial city refers to an emerging set of urban forms and functions that appears to be sufficiently different from the industrial city (Shaw, 2001: 284). The post-industrial city implies the city dominated by service activity, and the outcome of *deindustrialization*. It exhibits postmodern forms of consumption and culture, and the post-welfare society (Knox and Pinch, 2000: 420). The emergence of the post-industrial cities can be summarized as follows:

> "The result has been massive *deindustrialization* and the consequent transformation of the classical industrial city. Many factories have been closed and areas that once teemed with industrial activity have become urban wastelands or else have been transformed into shopping complexes or leisure centers. The decline of traditional heavy manufacturing industry has been especially pronounced in the industrial heartlands of Britain – the Midlands, the North, Wales and Scotland – and in the 'rustbelt' of the united states – including classic industrial cities such as Chicago, Cleveland, Detroit and Pittsburgh" (Knox and Pinch, 2000: 40).

Firstly, it should be clarified what post-industrialism is? According to Bell, it can be easily understood *if one specific five dimensions, or components, of the term* (Bell, 1973: 14):

- *Economic sector:* the change from a goods-producing to service economy.
- *Occupational distribution:* the pre-eminence of the professional and technical class.
- *Axial principle:* the centrality of theoretical knowledge as the source of innovation and of policy formulation for the society.
- *Future orientation:* the control of technology and technological assessment.
- *Decision-making:* the creation of a new 'intellectual technology'.

Today, we know that there is strong bridge between the post-industrialism and post-industrial cities:

> "Most older industrial societies began to experience the impact of industrial leveling off or decline and the growth of post-industrial service sectors, a series of changes in the world economy began to reshape urban networks and to hasten the development of a small number of world cities that possessed the resources to exploit and benefit from a new, more internationalized economic order… the dynamic changes that shaped the global, post-industrial economic order also led to differential outcomes for different places" (Kantor, 1987 cited in Shaw, 2001: 286).

With the growth of multinational corporations all over the world, *the weakening of national restraints on the free flow of capital between countries and regions, and the development of new types of investment instruments* have affected the dynamics of *urban networks* worldwide.

> "While cities tied firmly to smokestacks and factories frequently suffered social and economic distress after 1970, those cities positioned to provide the services required by the new global order grew in affluence, commercial importance and economic power. Decisions made in these centers of post-industrial growth and change, frequently termed 'global cities' disproportionately affected the course of economic and technological developments in distant parts of the world" (Shaw, 2001: 286-7).

The concept of '*global city*' is generally used by referring to Saskia Sassen. According to her, while the decline of industrial centers as a consequence of the internationalization of production beginning in the 1960s has been thoroughly documented and explained, until recently the same could not be said about the rise of major service cities in the 1980s. Thus, producer services and consumer services found each other in abundance only in a relatively small number of places. As the global economy expanded, and the demand for these services increased, such post-industrial '*command points*' as New York City, London, Paris, Tokyo and Hong Kong. Sassen theorized that global cities

constituted a new type of urban development (Sassen, 2001).

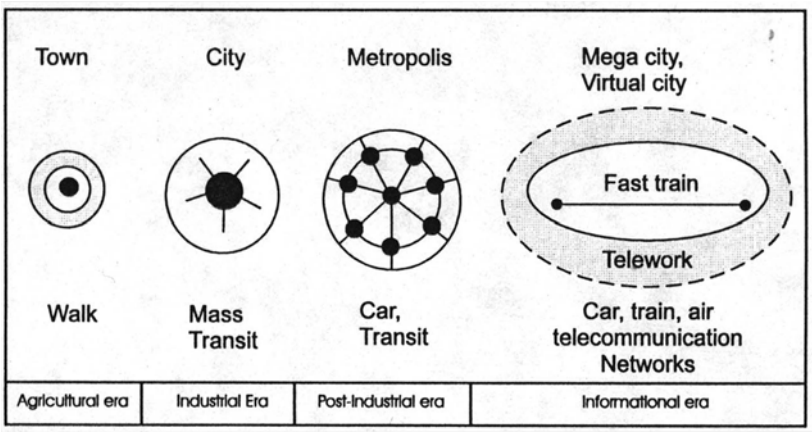
Informational growth – or 'informational revolution' – is placed at the heart of the post-industrial debates. Knight and Sassen suggest that the continuous development of cities as knowledge centers is a form of economic development that has capabilities to invert old industrial cities: "With the advent of rapid, low-cost, worldwide communication, global economic networks have become the new driving force of economic growth, and in this context, information and knowledge have become critical to the creation of new wealth" (Knight, 1987 and Sassen, 1991 cited in Shaw, 2001: 292-3) (see Fig. 4.6. and 4.7).

Table 4.2. Transition to an information society

	Agricultural	**Industrial**	**Informational**
Industry location	Dispersed	Centralized	Centralized with decentralization
Industrial process specialization	Handcraft	Mass production	Flexible
Economic engine	Human muscle	Machines	Human knowledge
Product	Customized	Uniform	Personalized
Work conditions	Informal	Formal	Team
Dominant mode of interaction	Face-to face	Hierarchical line management	Information networks
Type of information transfer at work	Verbal	Paper	Electronic
Market orientation	Local	National	Global

Source: Newton and Manins, 1999:302

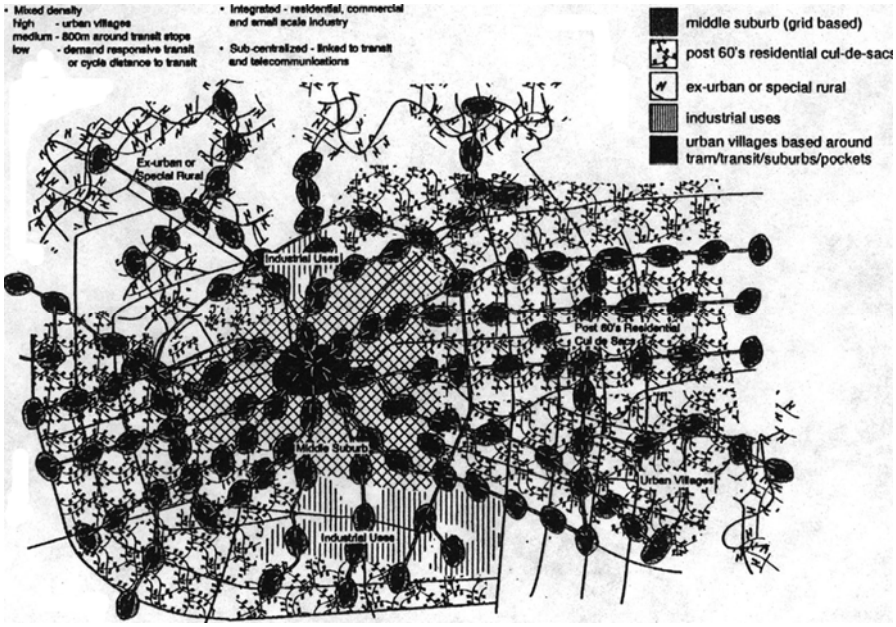
Fig. 4.6. Technology transition and the changing space economy



Source: Newton and Manins, 1999: 301

Finally, it should be useful to mention the urban form that determined knowledge-centered approaches. "The emerging future city based around information technology is likely to be more of a multi-nodal city with distinct sub-centers that express a particular cultural and ecological identity. The idea of a city with just one major center (CBD) will become less and less obvious… the cities may begin to concentrate around central and sub-centered nodes of quite intense urban activity in the global information technology era" (Newman et.al., 1999: 332-3).

Fig 4.7. Future city – nodal/information city



Source: Newman et.al, 1999: 334

4.3. The Debates on Regional Economies

In general, regional economics represents a framework within which the *spatial character of economic systems* may be understood. It can be identified as "…the factors governing the distribution of economic activity over space and to recognize that as this distribution changes, there will be important consequences for individuals and for communities" (Hoover and Giarratini, 2003). This classical definition has been mostly changed and discussed since 1970s. This section aims to examine the changes in the regional economies by drawing on certain studies.

This section constitutes three sub-titles, and each one is summarized one fundamental study. First is belonged to Sabel (1989) that based on the idea of *'re-emerging the regions as an economic unit'*. The second is based on the study of Amin and Malmberg (1992) that focused on the balance between local and global tendencies by means of

specific evaluation of the *'Europe of the regions'* project. And finally, the radical study of Peck and Tickell (1994) that claims current period is similar to *'global/local disorder'* is summarized.

4.3.1. The Region As an Economic Unit

Sabel points to the changing role and position of regions within a historical context dating back to the specialized and flexible regions of Europe having a considerable sensitivity to the *rapidly changing international markets*. These regions –for instance, Lyons, Sheffield and Solingen, Birmingham and St Etienne- were called as the 'Industrial Districts' (Marshall) by the neo-classical economists, highlighting the 'area' they created, rather than the 'firm' as the matrix of production.

> "Until at least the mid-nineteenth century, the region was a natural unit of economic activity and analysis… By the 1960s, the region had become a derivative category of analysis and a secondary locus of economic activity. Despite continuing differences in national industrial structure, there was widespread agreement that the most effective productive unit was the giant corporation, which at the limit integrated in one physical structure the activities of independent firms in the industrial districts… In the early 1970s, as international competition increased and world markets fragmented, firms became more and more wary of long-term investments in product-specific machinery… They encouraged the reconsolidation of the region as an integrated unit of production " (Sabel, 1989: 102-3).

Sabel identifies five developments, each expediting the others and influenced by them as the signs of the re-emergence of the region as an economic unit (Sabel, 1989: 103-4):

1. The emergence of conspicuously successful, twentieth century variants of industrial districts in Italy, West Germany, Japan, Denmark, Austria, France, and the United States.
2. The double convergence of large – and small - firm structures is a clear extension of the preceding two.
3. The formation within one or several areas of flexible specialization of an industrial group composed of a large firm (where large is defined by local standards) with expertise in marketing and finance and smaller firms with expertise in production.
4. The slow formation of local governments from welfare dispensaries to job-creation agencies is another development
5. The circumstantial evidence of the pervasiveness of the preceding four. It is that plant – or regional - level officials of American, West German and Italian trade unions are co-operating – often under dress - in the industrial reorganization.

If the existence or the provision of one clearly defined model of regional economy and organization common to all is one to be answered for the future predictions, so the need for such two tasks in relation to changing conditions. Sabel gives an answer:

> "Not all firms in the advanced capitalist countries will tie their future to specialization and regional co-operation" and adds emphasizing the forces driving many in a contrary direction: "Nor will the complex, closely connected structures of local and national government automatically adjust to the needs of firms that do regroup regionally. National political responses to the crisis have often obstructed such adjustment; and where local institutions have accommodated company reorganization, their reaction has been more a reflex of prior institutional developments than a strategic choice. Similarly, national unions he often blocked plant level adjustment where local circumstance favoured it… even if numerous regional economies do emerge, it is unlikely that they will survive without the help of still undefined national institutions" (Sabel, 1989: 104).

What Sabel firmly marks is that any of these considerations do not alter the fact that the relation between the economy and its territory is changing.

> "Perhaps the most dramatic response to the continuing instability of international markets has been the formation or revitalization of regional economies that strongly resemble the nineteenth-century centers of flexible specialization… Whereas the firms of that volatile epoch [the Great Depression of the1930s] used traditional skills to maintain existing goods, the new industrial districts constantly renew their products and production methods" (Sabel, 1989: 106).

Sabel points to the emerging consideration of regions and regional economic formations in relation to the '*new doctrine of endogenous growth*': "Independent of the emergence of the new industrial districts and the shift in large firms' strategy, there has been a striking reorientation in the thinking of regional planners, local development officials, and the geographers, urbanists and regional economists who are their exponents and advisers" (Sabel, 1989: 126). In contrast to the old view on the regions as rich and poor geographies of production within the national maps and as administrative units responsive to the dispensing welfare services, Sabel provides a newer version:

> "Today, as increasing competition undermines the sense of security of even the most well-to-do areas and national welfare systems strain to meet their obligations, these two perspectives are giving way to a single view of the region as an economic entity full of underused or unused resources that range from traditional artisanal skills to petty commerce. Prosperity depends, according to the new doctrine of endogenous growth, on developing these resources rather than importing the equipment and skills of a mass-production economy from the rich exterior" (Sabel, 1989: 126).

Finally, it should be noted that Sabel adds that this new doctrine is *partly a reflection of current thinking about the Third World* like the old one.

4.3.2. Changing Balance Between 'Local' and 'Global'

Dealing with the implications of the changes in the nature and organizational characteristics of production in Europe, Amin and Malmberg (1992) point to the schools of thought whose arguments are evaluated within the former chapters in detail. As to be remembered, they focus on the end of the dominant Fordist system of mass production, characterized by the urban agglomeration of production, and later, by the functional division of tasks between cities and regions which are hierarchically linked to each other.

In their examination of the *changing balance between localizing and globalising tendencies in the production system*, Amin and Malmberg evaluate the possibility of the so-called 'Europe of the regions' strategy in their comprehensive work:

> "The geography of post-Fordist production is said to be, at once, local and global. The new organizational networks, involving foreign direct investment and alliances, are transnational in their operational structure. But in contrast to Fordism, production in individual localities, it is argued, is neither footloose nor reliant predominantly on nonlocal linkages. This is because the achievement of flexibility and new economies through the decentralization of management and production is said to favor the establishment of strong ties and linkages at a local level: the global integration of production, thus, could unleash powerful decentralizing tendencies and raise the potential for greater local embeddedness of the division of labor. Such a scenario, suggestive as it is of a 'Europe of the regions', stands in sharp contrast to the more familiar, Fordist, landscape of a small number of metropolitan regions and giant corporations dominating and controlling the development of the remaining majority of cities and regions" (Amin and Malmberg, 1992: 228).

According to Amin and Malmberg, "the most powerful case for the possibility of a 'Europe of the regions' comes from a group of writers speculating over the rise of locally agglomerated production systems out of the crisis of Fordism. Envisaged is a sort of return to a Smithian division of labor between self-contained, product-specialist regional economies" (Amin and Malmberg, 1992: 229). The authors note that this is a thesis derived from the work of Piore and Sabel, Scott and Storper, Hirst and Zeitlin, and some others deploying the concepts of flexible specialization or flexible accumulation to describe the new times of vertically disintegrated and locationally fixed production (Amin and Malmberg, 1992).

They emphasize the statements on *a dependence on locational proximity between different agents involved in any production filiére*, implied by the radical transformation of the production system towards flexible intrafirm and interfirm arrangements, which combine the economies of scope and versatility. "Via the consolidation of particular product specialisms in different areas a federation of self-contained regional economies is anticipated, each economy with its own 'Myrdalian' cumulative causation effects, drawing

upon the external economies of agglomeration" (Amin and Malmberg, 1992: 230). The authors also state that the cases given within empirical analysis of this thesis are worth considering: High technology and innovation areas; Silicon Valley, Boston, Cambridge shire, the M4 corridor, Grenoble, Montpeiller, and some other technopoles which have launched new products; the industrial districts in semi-rural contexts (those in the Third Italy regions) and in inner-city environments (motion pictures in Los Angeles and the furniture industry in inner London), in which networks of small firms produce craft or better quality consumer goods; where leading-edge large engineering companies rely on local subcontracting and supply networks for their flexibility and innovative excellence (Baden-Württemberg). According to Amin and Malmberg (1992), the interesting aspect of this new approach is the (re)discovery of the locational importance patterns and linkages and the formation of interfirm relationships, notably in relation to the exchange of information between buyer and seller and its influence on linkage costs through the imposition of different kinds of transaction costs.

On the other hand, there are various views on spatial aspects of this transformation of production system: In their distinction between standardized supplies and customer-specific supplies, Fredriksson and Landmark (1979) state that *distance-sensitive contacts limit the geographical area in which possible contractors should be located, if production with them is to be profitable*; Scott (1983) focuses on the two forms of production, their association with different types of linkages, and the locational implications for small-scale activities, transport and communication costs on linkages will be high and sensitive to increasing distance and hence encouraging spatial agglomeration. For large-scale, highly-standardized, and capital-intensive plants linkage costs will be less sensitive to increasing distances and hence having more decentralized location (Amin and Malmberg, 1992: 231-2).

Amin and Malmberg state that there exists a '*globalising trend*' associated with the growing influence of transnational corporations (TNCs) over national and local economic development prospects, having "…important variations in the degree of direct and indirect TNC influence over different nations, localities, and sectors in Europe" (Amin and Malmberg, 1992: 234). Focusing on the corporate activity, the authors claim that "corporate activity is increasingly being articulated on a Europe-wide scale, with local fortunes more or less tightly locked into this process of economic integration… (and that) …the meaning of place is becoming increasingly defined within the hyperspace of corporate activity (Swyngedouw, 1989)" (Amin and Malmberg, 1992: 234). What they

strongly emphasize is that *the actual form of development in individual cities and regions* is a matter of the nature of the wider corporate division of labor and *the position or status of different places within it.* Additionally, although they highlights the possibilities for corporate activity based on the growing significance of networking as a form of organization and governance which contributes elements of 'market' and 'hierarchy', they state that "critical questions affecting local possibilities, namely the geographical scale at which corporate networking is occurring and the locus of control and command within these networks, the answers are far from clear" (Amin and Malmberg, 1992: 235). The networks are definite the centers of control within intracorporate hierarchies. They are visibly clustered around the major European cities. It is probable that the locus of control within the new global networks is more diffuse and less readily identifiable, thus making to situate the source of uneven development more difficult (Amin and Malmberg, 1992: 238).

Additionally Amin and Malmberg examine *the implications of major institutional changes proposed at a cross-European level on the geography of production and on prospects for local economic development*, while focusing on as:

> "The implications of the emerging rules governing the Economic and Monetary Union (EMU) of the EC'. "One of the meanings attached to the term 'Europe of the Regions' by the European Commission itself is the possibility, elucidated within the regional policy proposals attached to EMU, to reduce disparities within the EC via the introduction of various policies designed to improve industrial competitiveness in the less-favored regions (LFRs)" (Amin and Malmberg, 1992: 239).

In their critical evaluation, the authors state that the Commission does not share the neo-liberal view that economic and monetary union will bring automatic efficiency and scale gains to all parties, including the LFRs and that it agrees with the argument that "integration left to the market only could well increase regional disparities by strengthening the hand of the strongest firms and the core regions" Amin and Malmberg, 1992: 239).

Amin and Malmberg (1992) considers the strategy *to turn localities into self-promoting islands of entrepreneurship* as to face considerable difficulties *if it is to become a universally viable strategy for local economic regeneration*. The major processes of economic and political restructuring in Europe are characterized by contradictory spatial tendencies.

> "There are numerous indications of an increasing globalization of the production system, but also evidence of localization in particular industries and spatial contexts… Contradictions prevail also in the arena of regional and industrial policy. At the level of the nation-state, the

transition towards locally based entrepreneurialism as a mainstay for urban and regional regeneration is at once a boost to local productivity and a legitimation of a blurring in focus and direction of development priorities. Local 'boosterism', on the other side of the coin, is becoming accompanied by an intensification of interregional competition for investment and initiatives as national governments reduce their commitment to the principle of central coordination or regulation of the space economy" (Amin and Malmberg, 1992: 245).

4.3.3. The Local Disorder

Peck and Tickell (1994: 298) question whether there is an establishment of a 'new spatial order' or the geography of crisis, 'a spatial *dis*order'. Pointing to the statement on an evidential global-local order, they focus on the possibility of project forward from the present crisis period of these geographical realities. The authors state that the symmetry implied in the terminology of global-local nexus is rather misleading. "The global-local nexus is, we would argue, a lopsided concept, comprised on the one hand of powerful processes of global disorder and on the other hand of largely reactive, and typically shallow, local responses" (Peck and Tickell, 1994: 298).

Table 4.3. Spatial constitution of regulatory relations under and after Fordism

Spatial Scale	**Fordism**		**After Fordism**	
	Characteristics	*Contradictions*	*Characteristics*	*Contradictions*
Global system	Bretton Woods financial system and GATT underwrite financial stability and global trade, acting as mechanisms which 'transmit' Fordist features internationally. An international 'regulated space'.	USA acts as governor and guarantor of regulatory order at some same time as exploiting the system for its own economic interests. US ideology of market undermines efficacy of international regulatory discourse.	New international financial system operates outwith control of regulators, while 'market logic' dominates negotiations over the GATT. Creation of 24 hour global markets enable capital to engage in 'regulatory arbitrage', further undermining regulation.	Financial system increasingly volatile and unstable. Economic cycles rapidly transmitted through system, accentuating both growth and decline and undermining basis for stable development.
Global-national relations	Nation states have the capacity to set independent monetary policy within the context of US hegemony	In later stages of Fordism, progressive internationalization of capital undermines economic self-sufficiency of nation states. Transmission of US	Nation states cede powers to emergent supranational bodies which attempt to control internationalization of financial and productive capital (e.g. BIS,	National economies become further absorbed into global circuits of capital – necessitating further supranationalization of power. This further undermines

		'domestic' problems through global economy.	European Union). TNCs engage in regulatory arbitrage.	both nation state and relatively weak supranational regulatory structures.
National scale	Central regulatory functions dispensed by Keynesian welfare state which secures conditions for mass production and consumption.	Fiscal crisis of nation state triggered by deindustrialization, rise of mass unemployment and loss of interest rate sovereignty.	'Hollowing out' of nation state, as national governments cede power to supranational and local bodies.	State loses some control over accumulation process and becomes more responsive to the demands of capital. Less able to meet social welfare objectives, further undermining cohesion of the national social formation.
National-local relations	Centralization and consolidation of nation state powers as governments attempt to control national economies and introduce social welfare systems. Nation states week to ameliorate the worst effects of uneven development via regional policy.	Political and economic contradictions of uneven development within nation state. Failure of regional policy following deepening peripheralization.	Unstable. Geographically specific political responses. Targeted local interventionism replaced by selectivity based on market criteria.	Increasing market competition between local state fosters 'regulatory undercutting'. Zero-sum local-local competition. Spatial inequalities exacerbated.
Local scale	Key regulatory functions around social reproduction dispensed through local welfare states.	Fiscal crisis of national state transmitted to the local state, undermining local welfarism.	Some argue local states have enhanced economic role. Supply-side local state managing, for example, training policy.	Local states powerless in global economy, reacting to external economic forces. Few degrees of local freedom.

Source: Peck and Tickell, 1994: 300-2

According to them, "while some localities may be successful for some of the time, their success in the current global climate is only being achieved at the expense of the failure elsewhere. Local successes, moreover, are likely only to be transitory" (Peck and Tickell, 1994: 298). They claim that the recent arrangement of global-local relations is

'*chronically unstable*' and contradictory.

> "The table 4.3 illustrates the spatial contradictions of Fordism and the ways in which they contributed to the crisis of the Fordist regime of accumulation. It also indicates some of the spatial relations which characterize the unstable period since Fordism's demise. This new geography is not, of course, the polar opposite of its predecessor, although there are fundamental differences between them. Global disorder seems to be intrinsically connected to local disorder" (Peck and Tickell, 1994: 298).

According to Peck and Tickell, the argument "that the internationalization of accumulation has eroded the power of nation states is hardly contentious… Anew global system has yet to stabilize. Fuelled by neo-liberalism, the system seems still to be unraveling" (Peck and Tickell, 1994: 303). Rather, the authors state that *tendentious shifts in local-level regulatory practices are perhaps even more fragile*. Referring to the variants of localization thesis (Mayer, 1992), which see *local states to have an enhanced role in the world economy because they have been able to by-pass national states*, they state that *such claims are, to say at least, debatable*.

> "While cities and regions may be competing with each other, it is difficult to see that, in so doing, they are wielding significantly greater power than during the Fordist period. If nation states are insufficiently powerful to set their economic policy or to prevent transnational companies from engaging in regulatory arbitrage, local states will surely have even less success. To claim otherwise is to deproblematize uneven development as a process endemic to capitalism, and perhaps also to legitimate contemporary increases in spatial inequality" (Peck and Tickell, 1994: 303-4).

4.4. The New Industrial Districts

'Industrial districts' or 'industrial complexes' are the most well-known terms frequently used in the flexible production debate. Marshall defined the predecessor of the 'new' industrial districts as the "concentration of specialized industries in particular localities" (Marshall, 1920, cited in Erendil, 1998: 71). Accompanying the decline of this type of 'old' industrial districts, the emergence of a new type has been introduced among the scholars of the debate. The Italian experience, and especially the case of 'Third Italy' has been marked as a common argument referring to the new industrial district and has contributed to the development of a model to be implemented in other candidate geographies of flexible production.

Knox and Pinch define the new industrial districts as "a response to the increased *transaction costs* – the costs incurred in communicating with other organizations – which result from the post-Fordist externalization of production" (Knox and Pinch, 2000: 40). Despite the increased availability of advanced telecommunications systems – faxes, e-

mails, the internet, teleconferencing and so on – there is growing evidence that many interactions are best undertaken on a face-to-face basis. This is especially the case when complex items of knowledge have to be exchanged and where transactions and facilitating face-to-face interactions is for these interacting organizations to cluster together. There are many examples of this clustering: Silicon Valley and Orange County in California and Route 128 around Boston in the United States, the M4 Corridor and 'Motor Sport Valley' in the United Kingdom, the 'Third Italy' (Bologna, Emilia, and Arezzo), Grenoble in France and Baden-Württemberg in Germany (Knox and Pinch, 2000).

In addition, Knox and Pinch (2000) define the emerging characteristics of the new industrial spaces:

1. There is a tendency for these new industrial agglomerations to be located some distance away from traditional 'smokestacks' cities.
2. These new industrial spaces are often characterized by an environment that is relatively attractive compared with the older industrial cities.
3. There are in some cases high social costs associated with rapid growth.

Among particular cases, there is no doubt that the Third Italy has been a major case that gained vital attention, a highlighted by Bognasco in contrast to the impoverished South and the old industrial triangle of Genoa, Turin, and Milan.

> "It is a string of industrial districts stretching from the Venetian provinces in the North through Bologna and Florence to Ancona in the South, and producing everything from knitted goods (Carpi), to special machines (Parma, Bologna), ceramic tiles (Saussuolo), textiles (Como, Prato), agricultural implements (Reggio Emilia), hydraulic devices (Modena), shoes, white goods, plastic tableware, and electronic musical instruments (Ancona). But the example of the Third Italy is conquering the first two as the organizational practices of the industrial districts spread to Turin (factory automation) and the Canavese (software and computer equipment) in Piedmont, the Milanese provinces (furniture, machine tools) in Lombardy and Bari in the South" (Sabel, 1989: 107).

On the other hand, two high-technology industrial districts of the United States have been widespread examples among the scholars: "the center of semiconductor production in Silicon Valley, south-east of San Francisco, and the concentration of mini-computer producers along Route 128 circling Boston" (Sabel, 1989: 107).

Sabel (1989) also highlights Los Angeles as the home to *the technologically advanced agglomerations of firms specializing* in processes required in the closely related motion- picture, television, video-game, and music-recording industries – as well as injection moulding, garments, and (in neighboring Orange County) aerospace products. "Geographers are beginning to see these assemblies of industrial districts as a new model

of urban reindustrialization, and to speak of Los Angeles as the 'capital of the late twentieth century'" (Sabel, 1989: 107).

The question whether these examples – though the cited ones here is just a portion - would provide generalizable conclusions or gatherings, has an answer given by Sabel: "A proverb has it that 'for example is not a proof'. A list of modern industrial districts much longer than the preceding one would still not warrant general conclusions about the expansionary potential of the small-firm systems. Systematic efforts to assess the weight of such productive systems in the advanced economies are in their infancy (Sabel, 1989: 108).

Another question is how to success a district that answered by Erendil (1998: 75). According to her, the success generating factors in the industrial districts are:

- Interfirm division of labor
- Accumulation of knowledge and innovative capacity
- National and local modes of regulation
- Institutions and collective actors

Sabel (1989: 110) also states that "the new regional economies began to elaborate or revitalize systems for regulating co-operation between firms and workers that recalled the earlier controls on competition in the nineteenth –century industrial districts" during this period.

> "The greater part in the change in perception of the industrial districts reflected successive changes in the organization of the new regional economies. From the early 1970s to the early 1980s the small and medium-sized firms learned to make efficiently flexible use of the new microprocessor-based technologies and elaborated extensive but generally informal co-operative practices. From the early 1980s to the present they have begun to formalize relations among themselves by entering explicit but loose business alliances while also collectively expanding the range of services provided to the district as a whole" (Sabel, 1989: 109).

In sum, it should be say that geographical proximity, sectoral specialization, predominance of small and medium-sized firms, close interfirm collaboration, interfirm competition based on innovation rather than lowering wages, a socio-cultural identity which facilitates trust relations between firms and between employers and skilled workers, active self-help organizations, and active regional and municipal government strengthens the innovative capacity of local industry (see Erendil, 1998: 72).

Chapter 5
A CASE STUDY ON MANUFACTURING INDUSTRY OF TURKEY IN RELATION TO FLEXIBLE PRODUCTION DEBATES

The former chapters dealt with three fundamental debates, each of them is crucial to the understanding of the world economic formation and its dynamics since the 1970s.

In Chapter 2, the very nature of capitalism has been the first fundamental area of interest. Throughout this chapter, it has been mainly emphasized that capitalism is a historical system having definite procedural laws. Especially in the second part of this chapter, the major focus has been on the modern capitalism. That modern capitalism was directed by industrial growth where the conflicts among its procedural laws could be stabilized by the structures related with industrial production and regulations have all been concerned within a historical perspective.

The following chapter, Chapter 3, has mainly covered the debate on post-Fordism which has been developed in parallel to flexible production. This chapter has tried to evaluate the Great Depression and the following historical process under three different approaches, each representing a particular point of view and field of interest.

The 4th Chapter has consisted of the city, region, and space dimensions of the debates on flexible production. The crucial point that the chapter has tried to bring about has been that any geography, its spaces and places are not constituted entities on which economic-social changes take place, but rather, crucial determining subjects of such changes.

This chapter, Chapter 5, begins with a brief evaluation on the industrial and strategic processes experienced in Turkey before 1980. Following this section, the restructuring processes beginning with the officially declared "Stabilization and Structural Adjustment Program" (SSAP) of 1980s will be discusses in parallel to the debates on the unraveling of capitalism and on the establishment of new channels for the capitalist accumulation. What come after will be the changes and transformations at the urban and regional level brought about by this adjustment program closely related with the production processes. And finally, the claimed changes in particular variables of manufacturing industry will be analyzed in relation to the changes on the 'economic growth' and 'competitiveness' as the crucial indicators of industrial growth. The units of

analysis provided in this section will be the provinces and regions of Turkey.

In the last section of the case study, the changes in some indicators - derived from Sforzi (1988), Eraydın (1992) and the like - are analyzed in parallel to the developments in urban economic growth, structural adjustment, and competition advantages. Hence, the possibilities and potentials of the flexible production for post-1980 in Turkey are identified by the results on provincial units.

5.1. Introduction

As mentioned in the introductory section of the thesis, it is impossible to stand in isolation from the debates on flexible production began by the early 1960s and still go on all over the world. Turkey, experiencing a drastic restructuring process especially throughout the post-1980 period, did not break off the determinants mentioned in the former chapters. In spite of this reality, a few studies in the literature have been focused on the changes in the production processes and on the adaptation processes to such changes. Moreover, the spatial dimensions of the debate are generally neglected.

This case study is contributed to the areas structural transformations, inter-sectoral changes, local economic growth, and competition advantages of spaces. It should be emphasized here that it aims to establish a linkage between urban and regional processes and flexible production debates. In addition, there are particular sub-aims each referring to a related debate discussed in the former chapters. These are:

- To define the economic and industrial structure formed by the import substitutive industrialization strategies of the post-1960 period with its spatial context;
- To define the post-1980 policies in relation to world level transition processes;
- To analyze the structural changes at the urban and regional level brought about by Turkey's adaptation policies;
- To point to the relations of the new strategies formed within space with the flexibility debates;
- To identify the provinces of the country which are the fast experiencing places of flexible transition; and,
- To identify and map the potentials and possibilities provided by the flexible transformation by means of an evaluation of the provinces -if- having increasing possibilities in relation to the context of economic growth and competition probabilities.

Hence, the methodology included in the case study is fundamentally based on the testing of the general comprehension and interpretation process by the use of some quantitative analyses. Therefore, the case study is characterized both by its description of particular transformations within varying fields and by bringing about holistic outcomes via the quantitative techniques.

5.1.1. The Using Techniques of the Case Study

The compiled, converted and calculated data used in the case study was gathered from State Institute of Statistics (SIS), State Planning Organization (SPO), Ministry of Treasury, and former studies; thesis and books. The particular variables used in varying units are as follows: Population, growth rates of urban and total population, income per capita, Gross Domestic Products (GDP), GDP per capita, foreign capital, number of industrial firms, average firm size, profit rates, employment, value-added, produced value-added per worker, labour wage, and stock changes.

In the case study, the techniques providing data for a general interpretation, such as raw count, percentage and calculating growth rate, are also employed within this case study. In addition, as a means of providing data for an interpretation on economic growth, local competitiveness, adjustment capabilities, and investment conditions, which are of the crucial integral parts of the flexible production debates within the manufacturing industry, the technique of Shift Share Analysis is also used.

The Shift Share Technique was introduced in 1960 by Edgar Dunn (Klosterman, 1990: 177). Since that time, "it has been widely used in analyses of regional employment, structural change affecting different industries, industrial location, migration and economic growth" (Liu, et.al, 1999: 173). It has been used especially in analysis of regional or urban economies related with local economic development. Despite some critics on the limitation of the model, "a survey of the literature indicates that shift share analysis continues to be popular among planners, geographers and regional scientists… (because of the fact that) …it allows the researcher to quantitatively and comparatively test hypotheses about changes in employment or value-added by region or sector" (Knudsen, 2000: 177).

The industrial shift-share analysis is actually a descriptive method. The main idea is the determination of '*local (regional/urban) growth*' depending on the three factors: the first is *the growth of the reference economy (country) itself in which it takes place*; the second is *the growth of the regional/urban industries within the system*; and the third is *the*

spatial advantages of the region/city within the system compared with other regions/cities.

With this respect, the method is also used with respect to three components in parallel to the factors: the first is the "***National Growth Component***" *(regional share related with national growth)* that indicates the effects on the sector of the local economy; if sector *j* in location *i* exactly matches the national trend. The comparison of the value in a certain evaluation criteria in a region/city is related to the development of the country, that is, a comparison of an increase in manufacturing employment of a region/city and the national growth. Evaluation of this component reveals the existing positive or negative momentum. The second is the "***Industrial Mix (Shift) Component***" *(structural effect)* that calculates the change in the sector *j* that can be attributed to the country's industrial mix. Thus, it is a measure of the change in the selected indicator determined by the types of industry located in the country. If the region/city has a 'favorable' mix, comprising faster growing industries, it will experience faster growth for the selected indicator than the rest of the economy. This shift is positive (+) when the region/city is characterized by predominance of national growth, and it is negative (-) when the region/city is characterized by static growth or declining at the national level. And the third is the "***Competitive Growth Component***" *(total regional shift)* that defines the competitive and locational advantages of the sector. It may be used to evaluate the capability of structural adjustment and improvement in region/city with respect to the reach to the levels of faster growth and more applied investment.

In this study, shift share analysis is applied by employment, GDP and value-added values. Now, we try to explain calculation methods for these three components.[1] To begin with, 'beginning period employment matrix' is prepared. Afterward, similar matrices are prepared for following stages.

Table 5.1. Sample of beginning period employment matrix for shift share analysis

	Sector 1	Sector 2	Sector 3	Total Sectors
1st Region	e0b1s1	e0b1s2	e0b1s3	e0b1st
2nd Region	e0b2s1	e0b2s2**	e0b2s4	e0b2st
3rd Region	e0b3s1	e0b3s2	e0b3s5	e0b3st
Total Regions	e0bts1*	e0bts2	e0bts6	e0btst***

* Total employment of the first sector in the country
** Total employment of sector 2 in 3rd region
*** Total employment of the country

With these matrices, the growth (dij) and the rate of growth (rij) can be calculated;

[1] It is generally resorted to the thesis prepared by Yunusoğlu (1995) in order to explain calculations.

dij = e1ij – e0ij (growth of region i in sector j)	rij = dij / e0ij (growth of region i in sector j)

By using the matrices, the total growth rate (rbs) total rate of sector J within the country (rbj) and the growth rate of all sectors in a region (ris) can be calculated as follows;

dbs = e1bs – e0bs dbs / e0bs = rbs

dbj = e1bj – e0bj dbj / e0bj = rbj

dis = e1is – e0is dis / e0is = ris

The growth of sector j in region i (dij) can be evaluated as;

National Growth Component (gij) = e0ij rbs

Industrial Mix Component (kij) = e0ij rbj – e0ij rbs

Competitive Growth Component (cij) = e0ij rij - e0ij rbj

dij = e0ij rbs – e0ij (rbj – rbs) – e0ij (rij – rbj) = e0ij rij

The industrial mix component would have a big value if the employment growth is greater in the region i and sector j. The advantages of a region represent the spatial advantages; therefore, it is explained with its further growth which is more than average of the country. And the locational advantages of the region can be calculated according to bias of the national growth (gij). Also, again spatial growth advantages can be calculated according to the comparison with regional growth. Consequently, it can be possible to classify the local economies as follows:

TYPE I: The area in which both the competitive growth component and the industrial mix component has positive (+) values. Therefore, the local economy in this area both locational and accumulated advantages and it can be classified as “growth pole”

TYPE II: The area in which the competitive growth component is negative (-) and the industrial mix component is positive (+). It is thought that the local economy in this area is in a “downward transitional process”.

TYPE III: The area in which the competitive growth component is positive (+) and the industrial mix component is negative (-). The local economy in this area is in “upward transitional process”

TYPE IV: “The fall area” in which both component are negative (-).

On the other hand, selected spatial units (geographic regions, provinces and regional agglomeration centers) are used with respect to the level of analyses made. GIS is used as a tool for both locational and quantitative analyses during these processes.

5.2. Industrialization Strategies before 1980 in Turkey

This section aims to summarize the industrialization strategies and their results in Turkey between 1923 and 1979. This history in fact consists of many dimensions and discussions that are not possible to completely examine in this study. We only try to point out main trends of industrialization and its determinants.

General structure of the Turkey's industry between 1923 and 1979 provides an ideal setting for tracing the slide of industrialization on the list of social and economic objectives. The start of Turkish industrialization can be traced back to the 1930s, when a highly interventionist state initiated an all-out industrialization strategy under heavy protection. Although the private sector started to exert itself increasingly after the early 1950s, the state remained an active partner in the industrialization process. The main engine of industrialization was import substitution, which the government aimed to extend into intermediate and capital goods in the wake of the world economic crisis of the 1970s (Şenses, 1994: 1).

Like all countries, Turkey's industrial development can be described in terms of different stages which have been defined by capital accumulation processes, economic policies, industrial strategies, market regulations, political changes, financial policies and so on. These stages provide to indicate effects of industrial development in relation to different economic conditions.

In this section, two main stages are defined: first is the period between 1923 and 1961, from the *establishment of the Republic* to passing to the *planned development economy*; second is the period 1963 and 1979, from passing through *import substitution* strategies to passing through *restructuring processes* after the emergence of results of the *Great Depression*.

5.2.1 Industrial Development between 1923 and1962

Before focusing on the period between 1962 and 1979, we summarize the period between 1923 and 1961 in order to provide a complementary understanding. This period is divided into five stages, and each will be summarized point-by-point by using Erendil's study (1998: 104-9).

The period 1923-1929

- The main aim of the economic policies was to help the development of the national

bourgeoisie through the state support, which was found to be essential for growth and modernization. The period can be defined as a *reconstruction in open economy conditions* (Boratav, 1989).

- Turkey was integrated into the world economy as a country producing and exporting raw materials and importing consumer goods, similar to all independent countries in that period.
- Although the driving sector in this period was agriculture, industrialization gained a momentum in this period, especially in the form of small establishments mostly in the textile sector.
- The urban population in this period constituted only 12,7 percent of the total production and 40 per cent of this lived in İstanbul. The second largest city was İzmir due to its former relations with foreign countries (Eraydın, 1988).

The Period 1930-1939

- The main economic objectives can be summarized as *protectionism* and *state control* (Boratav, 1989).
- In 1934, Sümerbank and Etibank were founded within the projectionist economic objectives.
- In 1932-39 period, the share of private industrial interest in the national income rose from 3,4 percent to 6,2 percent and the share in total industrial production increased from 26,2 percent to 35,8 percent (Boratav, 1989).
- There was a substantial growth rate in industry, which reached an annual growth rate of 11,6 percent in this period. Industry, which formed 9,9 percent of GDP in 1929, rose to 18,3 percent in 1939. This growth mainly depended on the production of light consumer goods, such as textiles and food.
- The production of consumer goods, such as sugar, wheat and textiles and intermediary goods, such as iron and steel, paper and chemical goods were encouraged and the state supported the traditional interest groups in capital accumulation (Tekeli and İlkin, 1977). In the late of 1930s, the textile industry substituted 80 percent of the imports (Gülalp, 1987).
- For the first time in history, the balance of foreign trade was positive due to the restriction in imports.

The Period 1940-45

- *Almost all the productive sectors experienced stagnation because of the war*. There was substantial fall in production and capital accumulation.
- Big landowners from various Anatolian cities had the opportunity for high capital accumulation which was used to purchase real estate or various establishments at very low prices in big cities (Boratav, 1989).
- Large cities in Central Anatolia such as Ankara and Eskişehir and the cities in Çukurova region increased population (Eraydın, 1988).

The Period 1946-53

- In this period, Turkey was affected the main characteristics of the world economy which was developed after the war based on *the internationalization of capital*.
- Protectionist and introverted policies were replaced by *free trade and open economy policies*..
- The Marshall Plan in this period aimed to increase agricultural production through mechanization.
- In the early 1950s, most of the state expenditure was diverted to transportation, communication and construction investments (Gülalp, 1987).
- This period was advantageous for the agricultural sector rather than industrial sector (Boratav, 1989).

The Period 1954-61

- Imports of certain goods were restricted and *import substitution policies* started to be applied, especially by the help of state investments.
- As the share of the state investments increased, private investments also increased.
- The internal structure of industrial sector did not change, and as a result, the economy became dependent on imports of industrial inputs instead of consumer goods (Boratav, 1989).
- The main metropolitan centers and some regional centers attracted the investments. 21 percent of the industrial growth was experiences in İstanbul. These figures were 7,2 percent in Ankara and 5 percent in Bursa (Eraydın, 1988).
- High rate of urbanization and expanding squatter housing areas were analyzed with respect to the capitalist development process in an underdeveloped economy. The

people lived in squatter areas provided the necessary reserve labour force for the industrial sector (Tekeli, 1982 and Eraydın, 1988).

- The presence of unemployed and underemployed cheap labour in those centers hinders the decentralization tendencies of industrial establishments.

5.2.2. Main Policies and Industrial Development between 1962 and 1979

Early beginning of the period, in 1963, the First Five-year Development Plan was prepared, and therefore, long-term economic planning acquired importance. Although during the period short-term policies and financial problems always created conflicts with planning objectives, this plan is important because *import substitution* was clearly declared as national policy. Despite some similarities, policies, which were defined by the plan, differed from before import substitution policies such as those applied in 1930s and the second half of 1950s. In 1930s, import substitution was perhaps conscious strategy, whereas between 1954 and 1961 it was tried to apply due to outer forces such as plugged foreign trade possibilities. On the other hand, starting the import substitution by leading role of the first development plan caused evident changes in socio-politic structure and distribution relations (Boratav, 1993: 94-5).

The three development plans prepared in the period between 1962 and 1976 also differed from each other. The first plan pointed out the governmental investments as development force. Though the second and third plans went on the same policies, they also gave preferences to private sectors by means of encouragement and subventions. Thus, the main role of the governments was limited to support private sector, and social objectives lost its attention (Boratav, 1993: 102).

In this period, the changing demands of the bourgeoisie, both lived in urban and rural areas, forced the production of durable consumer goods. This trend encouraged the industrial development, but Turkey became increasingly dependent on developed countries in technology and main inputs. Meanwhile, it is the fact that the quality of goods was not enough to be exported. Despite some negative conditions, growing industry on durable consumer goods not only supplied to bourgeoisies, but also almost whole society, and then domestic market was evidently enlarged. Besides production of consumer goods, there was an increase in the production of intermediary goods, such as iron and steel, copper, aluminum, petro-chemical products, and construction goods which encouraged by the state investments (Boratav, 1993: 96).

The rapid growth in manufacturing output under this pattern of industrialization, which averaged 7,5 percent per annum during 1965-80, was responsible in establishing a large and diversified industrial base. This was accompanied by a rise in the share of manufacturing in GDP from 14,1 percent in 1963 to 19,1 percent in 1979 and considerable change in the structure of manufacturing value added and employment away from consumer goods toward intermediate and capital goods. The growth in the manufacturing production led to the creation of new capacities in both private and public sectors and depended mainly on expanding domestic market (Şenses, 1994: 53).

The growth of durable goods production with very high import requirement was higher than intermediary goods, and meanwhile, the growth in the production of investment goods was much lower than intermediary goods production. This condition led to the continuation of high amounts of imports for industrialization. While at the beginning of the 1960s, 35-40 percent of the consumer goods were produced by the state, at the late of the 1970s; the state investments were concentrated on intermediary goods production. Thus, the state provided the private sector with the necessary inputs. The export of the country therefore still depended on agricultural products. The share of industrial products in total export, when was 13-18 percent in the 1960s, reached 20-39 percent in the 1970s (Boratav, 1993: 98).

The period between 1962 and 1976, the economical growth continued despite the beginning the world crisis and increase in oil prices in 1974. In fact, the increase in oil prices was not emphasized much in the Turkey and then it was achieved to postpone the effects of the crisis by means of short-tem credits. Some quantitative indicators in the period between 1962-1976 are:

- Turkey had relatively higher wages compared to other newly industrializing countries; for example the wages in Turkey was more than twice the wages in Taiwan, which was the most successful developing country for export capabilities in the 1970s (Boratav, 1993: 100).
- The annual growth rate in GDP increased 6,6 percent (Boratav, 1993, 104).
- The share of industry in GDP, which was 17,5 percent (in current prices) in 1960-61, rose to 21,2 percent in 1975-76. On the other hand, the share of agriculture fell from 36,5 percent to 27 percent (Boratav, 1993: 105).
- In this period, annual growth rate of industry was 9,6 percent, while same value for agriculture was 3,9 percent (Boratav, 1993: 105).

- The share of the services sector in GDP rose from 46 percent to 51,7 percent in this period (Boratav, 1993: 106).

In the period between 1963-80, the growth is highest in the durable consumer goods and intermediate goods. On the other hand, the share of intermediate goods and investment goods in total industrial production reached 50 percent in 1980 (see Table 5.2). The structure of public manufacturing industry indicates that the state served the function of supporting the private sector by keeping prices low in some critical inputs. Furthermore, the share of state establishments in terms of production value and employment decreased from 44,2 percent to 36,4 percent between 1963 and 1980. In 1980, the public sector has a higher share than the private sector only in intermediate good production (Boratav, 1993: 104-6). The table below shows the structure of manufacturing industry and sectoral distribution between 1963 and 1980 (see Table 5.2).

Table 5.2. The structure of manufacturing industry and sectoral distribution (1963-1980)

	Production Value (%)					Number of Workers (%)				
THE STRUCTURE OF MANUFACTURING INDUSTRY										
Years	Light Consumer Goods	Durable Consumer Goods	Intermediate Goods	Investment Goods	Total	Light Consumer Goods	Durable Consumer Goods	Intermediate Goods	Investment Goods	Total
1963	66,7	4,4	20,5	8,4	100	65,4	3,7	18,7	12,2	100
1980	39,8	10,1	42,6	7,5	100	54,2	11,1	24,8	9,9	100
THE STRUCTURE OF PUBLIC MANUFACTURING INDUSTRY										
Years	Light Consumer Goods	Durable Consumer Goods	Intermediate Goods	Investment Goods	Total	Light Consumer Goods	Durable Consumer Goods	Intermediate Goods	Investment Goods	Total
1963	53,3	0,4	36,5	9,8	100	57,0	0,2	24,1	18,7	100
1980	29,2	0,1	64,5	6,2	100	53,9	2,3	33,3	10,5	100
SECTORAL DISTRIBUTION OF PUBLIC MANUFACTURING INDUSTRY										
Years	Light Consumer Goods	Durable Consumer Goods	Intermediate Goods	Investment Goods	Total	Light Consumer Goods	Durable Consumer Goods	Intermediate Goods	Investment Goods	Total
1963	35,3	4,0	78,9	51,6	44,2	39,2	2,3	57,9	69,0	44,9
1980	26,7	0,1	55,2	30,3	36,4	36,1	7,7	48,8	38,8	36,4

Source: Boratav, 1993: 108

According to Şenses (1993: 53-4), despite impressive growth performance in this period, a number of problems became increasingly apparent in the second half of the 1970s, which in the final analysis rendered this pattern of industrialization nonsustainable. These problems can be briefly sketched under three main headings:

1. extensive production over a long period of time was instrumental in the creation of sustainable rents and the emergence of a highly inefficient industrial structure.

2. relative factor prices were highly distorted, thanks to the maintenance over long periods of the time of overvalued exchange rates and severely negative real estates of interest under the deep financial repression.
3. pushing the pace of industrialization too far beyond the available resources and the persistence of populist policies in the face of severe external shocks led to the emergence of macroeconomic instability of massive proportions in the late 1970s.

In the second half of the 1970s, introverted, interventionist, import-substitution industrialization model started to manifest various bottlenecks and inefficiencies with effects of the world crisis of the 1970s. Commercial capital holders could make big profits in black market conditions. Thus, it created great expansion in the service sector and the share of income in this sector increased from 29,8 percent in 1975 to 42,5 percent in 1979. Meanwhile, the gross profits in the industrial sector decreased from 8,8 percent to 7,6 percent. The increase in real incomes and raw material and energy shortages led to a capacity decrease in the industrial sector due to decreasing profits. These conditions prepared the structural changes in the economy (Boratav, 1993: 117).

In fact, by the time the end of 1970s, Turkish economy came across the necessity of restructuring because of the many bottlenecks, which were caused by the model of import substitution and its absents. It is possible to see lots of indicators to show this situation. For instance, the share of exports in GNP was only 4,5 percent and much of it consisted of agricultural commodities. Second, the relative factor prices were highly distorted due to overvalued exchange rates and negative real rates of interest. Third, the rate of growth of the manufacturing output fell from 14.2 percent per annum in 1973-77 to -0,6 percent in 1978-80 (Şenses, 1994 53-4).

5.3. Turkey's Economy and Industrial Strategies since 1980

This section of the study aims to explain historical evaluations of Turkey's economy and industrial strategies since 1980, which materialized after the great depression caused plugged the Fordist accumulation processes, especially in international market. Crisis of Fordism and indefinite conditions in advanced capitalist countries affected other national economies especially less developed and underdeveloped ones.

Changes in Turkey, which systematically occurred since 1980, can be called as '*restructuring process*'. Boratav examined the period after 1980 in four phases: 1981-83 liberal economy under the military regime; 1984-88 boom years of ANAP period and crisis; 1989-93 the shift to populism and convertibility; and, 1994 crisis (see Erendil, 1998: 115). What evidently important in the period is that the establishment of the right-wing party, to say ANAP, and its well-known leader Turgut Özal certainly aimed to draw a new route for Turkey. The political agenda, the condition of social classes and the division of labour, the identity and culture as a means of social formation, the international relations, the modes of production and consumption, regime of accumulation, the way people think and live, that is to say, the whole life has been changed and transformed in Turkey. This process has been run hand in hand with those all over the world, and there is no doubt that it is ongoing (Kılıçkaya, 2002: 214).

To begin with a sum, much rhetoric has occurred about restructuring/reforming processes in Turkey. Some of them may be highlighted: (Kılıçkaya, 2002: 215-6)

- The privatization, decentralization, liberalization, and deregulation
- The increasing mobility of capital at both national and transnational level
- The rise of the capitalist class
- The policies towards the import oriented economy (reorientation to import economy), and the increased importance of the export economy
- The emergence and the spread of the free markets
- The ongoing internal migration from rural to major cities
- The rise of the informal economy, growth in the marginal sectors and marginalized social classes
- The rise of the construction industry as a basic sector, and the tourism boom
- The emergence of the war-economy
- An increasing dependency on the IMF programs and the World Bank policies

- The establishment of the 'consumer society' and policies oriented towards the populism and the convertibility
- The rapid growth in the media business
- The increasing unemployment and poverty

Changes and policies listed above have been seen as structural transformation in the economy. Although at the beginning of the period, GNP and per capita values have increased, their growth rates have never resolve basic economic problems radically (Table 5.3.) Since 1980, Turkey has passed through crisis conditions, such as 1994 and 2001 crises.

Table 5.3. The main demographic and economic indicators of Turkey, 1980-2000

	1980	1990	2000
Population (thousand people)	44.737	56.473	65.293
GNP-1987 prices (billion TL)	50.870	84.592	119.144
Per capita-1987 prices (TL)	1.144.739	1.505.110	1.766.124

Source: Compiled from SIS, 2001

Table 5.4. The changes in the employment structure of Turkey, 1980-2000

Employment by Kind of Activity in Turkey (1980-2000)							
Kind of Activity	Turkey 1980		Turkey 1990		Turkey 2000		Growth Rate (1980-2000)
	Employ.	%	Employ.	%	Employ.	%	
Agriculture, Hunting, and Fishing	11105000	60,5	12547796	54	7449000	35,6	-0,33
Mining and Quarrying	132000	0,7	130823	0,6	75000	0,4	-0,43
Manufacturing	1976000	10,8	2781717	12	3611000	17,2	0,83
Electricity, Gas, Water	33000	0,2	80324	0,3	88000	0,4	1,67
Construction	765000	4,2	1184242	5,1	1333000	6,4	0,74
Wholesale, Retail Trade, Hotel Services	1084000	5,9	1854306	8	3782000	18	2,49
Transportation, Communication	531000	2,9	775427	3,3	1025000	4,9	0,93
Financial Inst., Insurance, and Other Bus. S.	294000	1,6	541742	2,3	685000	3,3	1,33
Social Services, and Personal Services	2425000	13,2	3344033	14,4	2886000	13,8	0,19
Total	**18345000**	**100**	**23240410**	**100**	**20934000**	**100**	**0,14**

Source: Compiled from SIS

During the restructuring processes, the employment rate in agricultural sectors has regularly declined from 60,5 percent in 1980 to 35,6 percent in 2000, even though it is thought that Turkey has a comparative advantage in this sector. On the other hand, the employment rate in manufacturing industry has increased from 10,8 in 1980 to 17,2 in 2000 (Table 5.4). It is known that one significant development has materialized in the services sectors; they have used advantages of the expanding foreign trade capabilities and reached incredible growth rates. These inter-sectoral changes indicate that Turkey's

sectoral priorities have been transformed in this period, however it has not had enough to overcome economical bottlenecks or create a stable or sustainable economy.

5.3.1. Adaptation Policies for Overcoming the Crisis: The Stabilization and Structural Adjustment Program

The great depression in 1970s, which caused visible the transformations in the world economy, evidently began to affect the Turkish economy at the late of the 1970s. The bottlenecks emerged in this period could be seen clearly in some indicators, for example the rate of growth in manufacturing investment having declined from an average annual rate of 7,5 percent during 1963-77 to -10,2 percent during 1977-80 (Şenses, 1994:53-4).

According to Amsden, as Turkey is one of the late-industrializing countries, in the 1980s, many industries in Turkey (like other late-industrializing countries) failed to create a higher skill or technology-intensive production either by diversifying into new markets or by moving into higher-quality segments in existing market. In addition, with the emergence of a global ideology of *liberalization* and *deregulation*, big business and big government have fallen into disrepute. The favored agent of the World Bank and IMF, which emphasized reforming the public sector (*privatization*), executing industrial change has become the small-scale firm (Amsden, 1994: 25).

Unlike advanced countries which resolve the problems, caused by great depression, by means of changes in organization of production and new technologies, less developed countries and late-industrializing countries, did not afford the costs of developing or transferring new technologies. Thus, they focused on existing opportunities such as monetary and financial policies, institutionalization, and different ways in organizations. Finally, after the years of great depression, while advanced capitalist countries focused on the technological changes, new production systems, and approved financial techniques. However, less developed countries were not included to production debates (Eraydin, 1992: 68).

In the response to this condition and owing to the political climate by the military regime in the early 1980s, there have been rapid changes in the economic and social structure of Turkey.

> "*The stabilization and structural adjustment program* (SSAP) was introduced in January 1980 against the background of a great deal of domestic political instability, initially as a short-term stabilization program under IMF auspices to cope with galloping inflation and

severe balance of payment difficulties. Under the guidance of the World Bank it was soon transformed to incorporate measures for structural adjustment, which over time increased in prominence. In fact, the main phases of economic policies under SSAP were, to a large extent, determined by the degree of influence of these two institutions in shaping domestic economic policies as well as developments in the domestic political environment" (Şenses, 1994: 54).

SSAP led to a radical transformation from import substitution under state direction towards export-oriented policies. The deregulation of interest rates in the organized markets for money, foreign exchange, stocks and securities, liberalization of import and export regimes are some of the major policy changes in line with the objective of export-led growth (see in Erendil, 1998: 114).

The main policies of SSAP were implemented by a strong team of technocrats and were guided by a three-year stand-by agreement with the IMF (1980-83) and five successive Structural Adjustment Loans (1980-84), followed by three Sectoral Adjustment Loans from the World Bank.

Table 5.5. The main economic indicators of Turkey, 1980-90

	GNP Growth	Manufacturing Growth	Exports	Imports	Inflation Rate*	PSBR** GNP
1980	-1,1	-6,4	2,9	7,9	107,2	-10,5
1981	4,1	9,5	4,7	8,9	36,8	-4,5
1982	4,5	5,4	5,7	8,8	27,0	-4,3
1983	3,3	8,7	5,7	9,2	30,5	-6,0
1984	5,9	10,2	7,1	10,8	50,3	-6,5
1985	5,1	5,5	8,0	11,6	43,2	-4,6
1986	8,1	9,6	7,5	11,2	29,6	-4,7
1987	7,5	9,9	10,2	14,3	32,0	-7,8
1988	3,6	1,8	11,7	14,3	68,3	-6,2
1989	1,9	3,2	11,6	15,8	69,6	-7,2
1990	9,2	10,0	13,0	22,3	52,3	-10,2

Source: Central Bank of Turkey, Annual Reports, Various issues; OECD, Economic Surveys, Turkey, various issues cited in Şenses, 1994: 56

Percent for all columns except cols. 3-4, which are in billion dollars
* Based on wholesale prices, 1981=100, 1981 weights for 1980-89 and 1987=100, 1987 weights for 1990
** Public sector borrowing requirement

According to Şenses (1994), SSAP could divide into two phases, roughly separated by the general elections in November 1987. The second phase of the SSAP represented a sharp contrast to the first, as the liberalization of political life elevated distributional issues to the foreground. During the first phase, SSAP was strongly challenged by sections of the population that lost out heavily, and the government yielded to these pressures. Without the straitjacket imposed by IMF and World Bank conditionally, these pressures in the face of growth-oriented policies that had commenced a few years earlier led to substantial rise

in public sector deficits, inflation and domestic and external debts (Table 5.5). Parallel to these developments, the second phase was also characterized by a number of policy reversals, most notably in exchange rate, wages and interest rates. Against this background, SSAP primarily aimed at reducing the role of the state in the industrialization process and policy realignment in both domestic factor markets and the foreign trade regime (Şenses, 1994: 54-5).

Eraydın (1992; 69) claims that two strategies developed in 1980s to overcome the crisis. The first is the improving the capability to export and, the second is an increasing foreign trade capacity. According to her, whole financial and legitimate regulations in 1980s, completely called as SSAP, were based on these two strategies. Thus, in that period it was commonly based on foreign trade but not on industrialization (see Table 5.5).

5.3.1.1. Expanding Foreign Trade and Institutional Regulations

The important elements in the stabilization policy were the flexible exchange rate policy and trade liberalization, which aimed to promote export activities. It could be evidently seen in devaluations; for example, the depreciation of the lira was estimated to be 55 percent between the end of 1979 and 1988 (Şenses, 1994: 56). Parallel to exchange rate policy, trade liberalization was pursued with the aim of promoting the export capacity and the main structural adjustments were made according to the principles of free market economy. The aims of the liberalized import policy was stated to be as follows:

> "…to secure protection within reasonable limits to the domestic industry, to provide continuous supply of raw materials and intermediary goods with competitive prices; to encourage investments, thus provide a favorable ground for the creation of employment and income in industrial and foreign trade sectors and to keep prices under control against inflationary tendencies" (see Erendil, 1998: 118).

The attempts for liberalization represented a gradual process, entailing a move from quantitative restrictions to price measures. In addition, the emergence of the institutional reform by the views of improving administrative efficiency and informing exporters about external market opportunities was accompanied by the strong encouragement given for the consolidation of exporting firms. These are called as *Foreign Trade Companies* (FTCs). These are aimed to 'exploit economies of scale, especially in marketing and *serve as key intermediary to small scale exporters* accounted for about one-half of total exports by second half of the 1980s (see Şenses, 1994: 57-8). These were initiated according to the

Japanese and Korean models, which proved to be successful since 1980; they have contributed to the growth in exports (Erendil, 1998: 126) (see Table 5.6, 5.7 and 5.8).

By realizing a certain level of industrial exports, these firms could benefit from considerable privileges and rewards such as tax rebates and duty-free imports of machinery and inputs.

> "Therefore, in the mid-1980s, the existing marketing firms, as well as FTCs established by the largest conglomerates of Turkey benefited from these advantages by gaining this status. These amount of exports realized by these firms increased from US$ 427 in 1981 (9 percent) to US$ 4335 (46 percent) in 1987. After 1989, because of changes in incentive scheme, these companies lost their previous profitability; after that year, incentives started to be given to producers with export activities." (Eraydın, 1993 cited in Erendil, 1998: 126)

Table 5.6. Distribution of the industrial goods in total export and import (1980-1990)

	Export			Import		
Years	All Industry	Agricultural Goods	Other Goods	All Industry	Petroleum	Other Goods
1980	36,0	8,5	27,5	47,5	47,5	5,0
1981	48,7	11,0	37,7	51,0	43,4	4,6
1982	59,7	15,9	43,8	52,7	42,4	4,9
1983	63,9	15,8	48,1	56,1	39,7	4,2
1984	72,1	17,1	55,0	59,8	33,8	6,4
1985	75,3	12,8	62,5	62,2	31,8	6,0
1986	71,4	11,3	60,1	74,8	18,1	7,1
1987	79,1	11,6	67,5	71,3	20,9	7,8
1988	76,7	10,4	66,3	76,6	17,0	6,4
1989	88,2	8,1	74,7	74,9	16,4	8,7
1990	89,9	7,3	76,8	76,1	14,0	9,9

Source: SPO, V. Beş Yıllık Kalkınma Planı Öncesinde Ekonomik Gelişmeler, January, 88, and SPO, "Main Economic Indicators 1985-91" cited in Eraydın, 1992: 72

Table 5.7. Growth of foreign trade between 1980 and 1990

	Total Foreign Trade (million $)		Foreign Industrial Trade (million $)		Total Foreign Trade
Years	Export	Import	Export	Import	Annual Growth (%)
1980	2.910	7.909	1.047	3.759	28,7
1981	4.703	8.933	2.290	4.641	61,6
1982	5.746	8.843	3.430	4.657	22,2
1983	5.728	9.235	3.658	5.177	-0,3
1984	7.133	10.757	5.144	6.432	24,5
1985	7.958	11.343	5.995	7.052	11,6
1986	7.457	11.105	5.324	8.302	-6,3
1987	10.190	14.163	8.065	10.101	36,7
1988	11.162	14.339	8.943	10.979	14,4
1989	11.625	11.967	9.086	10.282	4,1
1990	12.959	17.053	10.280	11.682	11,5

Source: SIS, and IMF World Economic Outlook April, 88 cited in Eraydın, 1992: 71

Table 5.8. Foreign trade between 1990 and 1994 (billion dollars)

	1991	1992	1993	1994
Exports	13,6	14,7	15,6	18,4
Imports	21,0	22,9	29,8	23,2
Foreign trade deficit	7,4	8,2	14,2	4,2

Source: Boratav, 1997 cited in Erendil, 1998: 129

As a result of these regulations, the foreign trade indicators have had attractive values: The rate of export in total GDP evidently increased from 4,74 percent in 1979 to 14,94 in 1987. Similarly, the rate of import increased from 16,23 percent in 1979 to 20,96 percent in 1987. It is known that these rates were much bigger than the European mean. Furthermore, the share of manufacturing goods in total export gained momentum, and reached to 76,7 percent in 1988 and to 89,9 percent in 1990 (Eraydın, 1992: 71).

In the period between 1980-88, while total foreign trade increased 136 percent, both annual growth of export (18,29 percent) and import (7,72 percent) increased. Export of industrial goods increased from US$ 785,1 million in 1979 to US$ 10280.6 million in 1990 (Eraydın, 1992: 70). However, developing export capabilities did not indicate stabile structure which could be seen in falling and rising of the rates, especially in 1990s.

5.3.1.2. Impacts of the Foreign Direct Investments

The structural adjustment program introduced in Turkey in 1980 placed major emphasis on *foreign direct investment* (FDI) that seen as a source of capital inflow and technology transfer. The liberalization of the trade, as a process that has gained momentum after 1980, has been materialized by a lot of specific changes designed to attract larger inflows of FDI. A brief experience of the data indicates that the new economic strategy implemented since 1980 has been quite effective in attracting foreign investment, although a large gap continued to exist between in authorized and actual inflows. The cumulative total of FDI authorized during the 1950-70 period had been recorded as 229 million. Yet, during the 1980-90 period, the cumulative total of FDI authorized emerged as US$ 6,189.9 million (Öniş, 1994: 91).

In 1979, a total of 91 companies had been in operation in Turkey, of which 76 were based in manufacturing and 14 in services. On the other hand, by the end of 1990, a total of 1,813 companies were in operation of which 508 were in manufacturing, 1,224 in services and 81 in agriculture and mining (Öniş, 1994: 91) (see Table, 5.9).

Table 5.9. Sectoral distribution of authorized foreign investment in Turkey, 1980-90 (Selected years - Percent)

Years	Manufacturing	Agriculture Mining	Services
1980	91,5	0,0	8,5
1983	36,6	0,0	13,4
1985	60,9	4,6	34,5
1988	58,7	3,9	37,4
1990	64,0	6,3	29,7
Average	61,4	2,4	36,2

Source: SPO, 1987, 1990, 1991 cited in Öniş, 1994: 101

Table 5.10. Sectoral composition of the stock of foreign capital in manufacturing and services in Turkey, end of 1989 (Selected years- percent)

Sectors	*Sector's Share in Total Capital*	*Sector's Share of Total Foreign Capital in Manufacturing*
A. Manufacturing		
Chemicals	12,5	24,5
Food & Beverages	8,3	16,3
Electrical & Electronics	6,9	13,5
Iron & Steel	4,6	9,1
Automotive Equipment	4,2	8,2
Textiles	3,4	6,6
Automotive Components	1,4	2,8
Miscellaneous	9,7	19,0
Total Manufacturing	51,0	100,0
B. Services		
Trade	10,4	23,3
Tourism	15,5	34,7
Banking	8,8	19,7
Miscellaneous	10,0	22,3
Total Services	44,7	100,0

Source: SPO, 1990 cited in Öniş, 1994: 103

Inflows of FDI in Turkey, in 1988 and 1989, remarkably increased (see Table 5.10 and 5.11). This raise was evaluated by some *optimistic* economists as the beginnings of a much larger wave of transnational investment that would lead to reach a stabile economy. The 1990s shows that this was only a utopia. The transnational companies are highly sensitive, as Öniş highlights:

> "…the macroinstitutional and policy environment of the host country. Even though surge of FDI flows to Turkey reached to a significant extent, when be attributed to the transformation of incentives through the liberalization of trade and payments regimes, elimination of bureaucratic controls and of discrimination in favor of domestic investors, and to a lesser extent comparatively low labour costs" (Öniş, 1994: 108).

Although these regulations have been gone on, the common idea that Turkish liberalization project has to find new tools to pull transnational corporations, if this is inevitable choice or only way to develop in 21st century has been widely discussed.

Table 5.11. Inflows of FDI in selected countries, 1988, 1989 (In million of dollars)

	1988	1989
Turkey	406	738
Brazil	1,794	744
Mexico	635	1,852
S. Korea	720	453
Thailand	1,082	1,65
Singapore	2,71	3,963

Source: International Financial Statistics, various issues; SPO, 1990 cited in Öniş, 1994: 105

Table 5.12. The sectoral breakdown of the authorized FDI in Turkey between 1980 and 2000 (million dollar)

Sectors	1980	1985	1990	1995	2000
Agriculture	0.00	6.37	65.56	31.74	59.74
%	0	2.7	3.5	1.1	2.0
Mining	0.00	4.26	47.09	60.62	6.32
%	0	1.8	2.5	2.1	0.2
Manufactur.	88.76	142.89	1,214.06	640.59	1,115.20
%	91.5	60.9	65.2	16.7	36.4
Services	8.24	80.97	534.45	849.48	1,878.64
%	8.5	34.5	28.7	28.9	61.4
Total	97.00	234.49	1,861.16	2,938.32	3,059.90

Source: Ministry of Treasury (http://www.treasury.gov.tr)

Table 5.13. The number of the firms with foreign capital in Turkey, 1980-2000

	1980	1985	1990	1995	2000
Authorized FDI	97.00	234.49	1.861,16	2.938,32	3.059,90
Realizations	35	158	1.005	1.127	1.719
Firms with foreign capital	78	408	1856	3161	5328

Source: Ministry of Treasury (http:// www.treasury.gov.tr) (01/08/2001)

According to Kepenek and Yentürk, manufacturing industry was impacted negatively by liberalization policies and FDIs, because infrastructure investments provided by public sector was stopped due to huge deficit in public budged. In addition, raising interest rates caused to be hindered new investments; and inflation, monetary policies and similar financial policies reduced the competitive capability of manufacturing industry at both national and international levels. (Kepenek and Yentürk, 2001: 365)

Eraydın claims that the experiences of Turkey in 1980s are important to provide thinking of prior mechanisms which produced to adapt new macro-economic system. Eventually, it is possible to see emerging new spatial units, and adaptable changes in organizations, division of labour, relationship among the firms similar with results of the tries to overcome Fordist crisis (Eraydın, 1992: 69).

In a similar but more interesting way, Öniş points out the relationship between foreign investment and flexible production. According to him, "foreign investment may play a key role in the process of industrial restructuring via the introduction of new, flexible technologies" so that developing sector-specific policies as well as a general improvement in incentives governing foreign investment (Öniş, 1994: 109). This point has been emphasized many times in relation to liberalization policies. At the same time, there has been a crucial discussion on an independent use of technology because it is commonly known that foreign investments offer technological improvement if only is it under the control of transnational corporations.

5.3.2. Accumulation Processes, Growth, and Wage Regulation Policies

With the introducing of the 1980 stabilization and structural adjustment program, Turkey has rested its development strategy on the model of export-led growth based on private initiative and the economy has entered into a process of integration with the world market. Meanwhile, it was a less understood aspect of structural adjustment that changed patterns of income distribution and acquisition of economic surplus (perhaps called as 'accumulation processes') during adjustment by the industrial and financial capitalist classes, through various forms of price and nonprice coercive income transfer mechanisms (Yeldan, 1994:75).

> "The emergence of new modes of expropriation of economic surplus and their policy design has not been expressed openly as underlying objectives of the reform. However, such discourse on the distributional reality has been a synergistic component of the economic rationale of the postadjustment era. Indeed, reconstruction of the domestic economy and functioning of the labour market were shaped in this period through political authoritarianism, depoliticization and demobilization of the labour force… In the meantime, the rural economy has witnessed severe erosion of real income of the peasantry and intensification of the transfer of resources from villages to the urban industrial centers" (Yeldan, 1994: 75-6).

Trading capabilities of agricultural sector declined to 48,8 percent between 1976 and 1985. It was a result of a resource transfer from rural to urban sectors. It is claimed that this was the most serious crisis of this sector which had been experienced since

establishment of the Republic (Boratav, 1993: 135). The terms of trade were the worst for agricultural products, such as cereals, industrial raw materials, oil seeds and tuber crops. As a result, Central and East Anatolian regions which do not have diversified product pattern were affected the most severely (see Erendil, 1998: 116).

Another claim for changes in accumulation channels is that they resulted by a shift to populist policies owing to trade union pressure and changes in the political climate after 1987 elections. As Boratav states, there was a sharp increase in real wages (31,3 percent in the private and 16,4 percent in the public sector in 1989; 38,7 percent in the private and 25,9 percent public sector in 1990). In 1990, the share wages in total manufacturing value-added increased from 15,4 percent in 1988 to 21,7 percent in 1990, which is still lower than the level before 1970 (see Erendil, 1998: 116).

There are many indicators which would prove to materialize changes in accumulation processes of the capital after 1980 such as breakdown of agricultural sectors. Additionally, another structural change could be that changes in shares of production by public and private sectors. The rate of value added of public sector decreased from 53 percent in 1963 to 23 percent in 1995, while increased the share of private sector from 47 percent to 77 percent in the same period. Similarly, the rate of employment decreased in public sector from 44 percent to 17 percent; in private sector increased 56 percent to 83 percent (Table 5.14). In addition, in this period (between 1980-95) the shares of public sector increased only in manufacture of chemical goods and chemical petroleum. In all other sub-sectors, it is seen domination of private sector (see Table 5.14, 5.15. and 5.16).

According to Yeldan (1994: 76-8), the realized production and accumulation patterns and the policy parameters suggest three distinct phases of growth in the domestic economy. Phase 1 covers the 1980-82 subperiod and is characterized by hesitant resumption of GDP growth, a rapid increase in manufactured exports, and decline in private investment along with intensification of capacity use in the manufacturing industry. Hence, this subperiod reveals a pure reorientation of the economy toward foreign markets based on a static stabilization of the domestic commodity and financial markets.

Phase 2 of the Turkish adjustment process exhibits a rapid growth, especially in manufacturing, and covers 1983 through 1987. This phase is the continuation of a rapid export expansion and increased productivity gains in the manufacturing industry. External economy provided expanding growth opportunities; the retardation of private accumulation would be examined at more length in the third section. Additionally, the consumerist tendencies of the capitalist class have outweighed its entrepreneurial spirit throughout the

adjustment era, along with more receptive attitudes toward Western lifestyles based on consumerism.

Table 5.14. Distribution of value-added and employment in manufacturing industry by public and private sectors, 1963-1995

Years	Public Sector (%)		Private Sector (%)	
	Value Added	*Employment*	*Value Added*	*Employment*
1963	53	44	47	56
1970	54	36	46	64
1975	48	35	52	65
1980	33	36	67	64
1985	38	30	62	70
1990	32	26	68	74
1995	23	17	77	83

Source: Kepenek and Yentürk, 2001: 368

Table 5.15. Distribution of value added in manufacturing industry by sub-sectors, 1980-1995

Sector	Public Sector (%)		Private Sector (%)	
	1980	**1995**	**1980**	**1995**
31 *Foot*	25	16	14	16
32 *Textile*	5	2	22	21
33 *Forestry*	1	0	1	1
34 *Paper*	3	3	3	3
35 *Chemistry*	41	66	19	18
36 *Soil*	3	1	10	9
37 *Metal*	15	9	6	6
38 *Machine*	7	4	25	25
TOTAL	100	100	100	100

Source: Kepenek and Yentürk, 2001: 368

Table 5.16. Distribution of value-added in manufacturing industry by sub-sectors according to public and private sectors, 1995

Sector	Public Sector	Private Sector
31 *Foot*	22	78
32 *Textile*	3	97
33 *Forestry*	6	94
34 *Paper*	18	82
35 *Chemistry*	53	47
36 *Soil*	4	96
37 *Metal*	30	70
38 *Machine*	4	96

Source: Kepenek and Yentürk, 2001: 369

Phase 3 snaps the period since 1988, and reveals a subperiod during which political rationalities finally come to grips with the economic realities of the markets (Öniş, 1991).

The limits of orthodox stabilization based on price incentives and surplus extraction via wage suppression seem to have been reached, and the economy enters a period of cyclical growth. The faltering growth performance of the economy is accompanied by weakened managerial activity of the bureaucracy due to *reform fatigue* (Ersel, 1991), and what at face value seems to be a reversal of the standing macro policies. This observation suggests that the private sector was able to sustain its mode of surplus acquisition in this period via a process that can be termed the '*supra-economic (rent)-inflation*' fed upon producer mark-ups over prime costs (Yeldan, 1994: 76-8).

Table 5.17. Production, accumulation and distribution in Turkey, 1980-90

	Stabilization			*Growth via external adjustment*				*Cyclical growth "reform fatigue"*		
	1980	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**
I. Production and accumulation											
Annual Growth Rate:											
GDP	-1,0	3,6	4,5	3,9	6,0	4,2	7,3	6,5	4,6	0,4	8,1
Agriculture	1,7	0,1	6,4	-0,1	3,5	2,4	7,9	2,1	8,0	-11,5	11,3
Manufacture	-6,0	9,5	5,4	8,7	10,2	5,5	9,6	9,9	1,8	3,2	10,1
Commerce	-4,1	7,4	4,6	6,9	8,0	4,6	9,4	9,9	3,8	5,8	12,1
Finance	1,8	1,9	1,6	0,5	4,5	3,5	3,7	3,6	4,7	1,8	3,5
Private Manufacturing:											
Productivity[a,b]	100	109	117	114	115	121	147	163	156	-	-
Exports[a]	100	230	405	649	725	891	758	1107	1301	1144	1269
Investment[a]	100	101	97	95	98	107	122	113	105	90	115
Capacity (%)	51	62	66	69	72	73	73	75	75	75	76
II. Distribution and Prices											
Wage rate[c]	100	107	103	94	78	72	63	79	61	74	-
Real profits											
Industry[d]	100	97	96	109	154	215	176	229	202	185	-
Banking	100	120	94	167	293	279	476	662	708	485	611
Real exc. Rate	100	104	115	125	141	136	130	109	109	93	70
Interest (%)[e]	-33	2,9	7,8	6,7	-4,5	7,6	12,6	5,9	-3,6	-2,1	-3,1
Producer services											
Private man.	100	131	166	219	323	453	613	860	1546	2530	3637
Public man.	100	131	165	213	311	451	576	702	1219	2033	3241
Domestic terms of trade	100	92	84	87	88	87	99	-	-	-	-

Source: Yeldan, 1994: 77

a: Index (1980=100) based on 1980 prices; b: Private Manufacturing value added per labour employed; c: Annual wage payments per labour in manufacturing; d: Total profits of 500 largest industrial firms; e: Annual average of the 1-year time deposits; f: Terms of trade between the prices received by farmers and the prices paid by them for current inputs and capital goods

According to Yeldan (1994: 79), in the context of the Turkish adjustment process, one can identify three main mechanisms for creating and sustaining of profit income for the capitalist class:

- The first is determined by the position of the capitalist class against labour and other primary factors of production.
- The second is based on the resolution of the integration process between the domestic and foreign capital.
- The third mechanism is due to the process of surplus creation based on the position of the capitalist class vis-à-vis the state, through the exercise of power of the state apparatus in the formation of income shares in the economic sphere.

One of the most important regulations of SSAP was basely implemented against the background of a highly restrictive environment for organized labour.

> "The military takeover in September 1980 saw the banning of all trade union activity, the suspension of free collective bargaining and strike activity, the imprisonment of a large number of trade union leaders and the introduction of new labour legislation aimed at curbing the power of trade unions in wage determination… The index of real wages and real labour costs declined from 100,0 in 1980 to 89,3 and 65,8 respectively in 1988. (Şenses, 1994: 56-7)

Akkaya similarly highlights that labour wages were regularly decreased by the governments after 1980 in order to reduce the production costs. The index of real wages declined from 100,0 in 1963 to 25,1 and 12,4 in 1988. Furthermore, per capita values increased in the same period from US$ 2,198 in 1979 to US$ 4,119 in 1988 (Akkaya, 2001: 81). This meant that an uneven income distribution became more salient, and the gap among different revenue groups unfairly opened (see Table 5.18.).

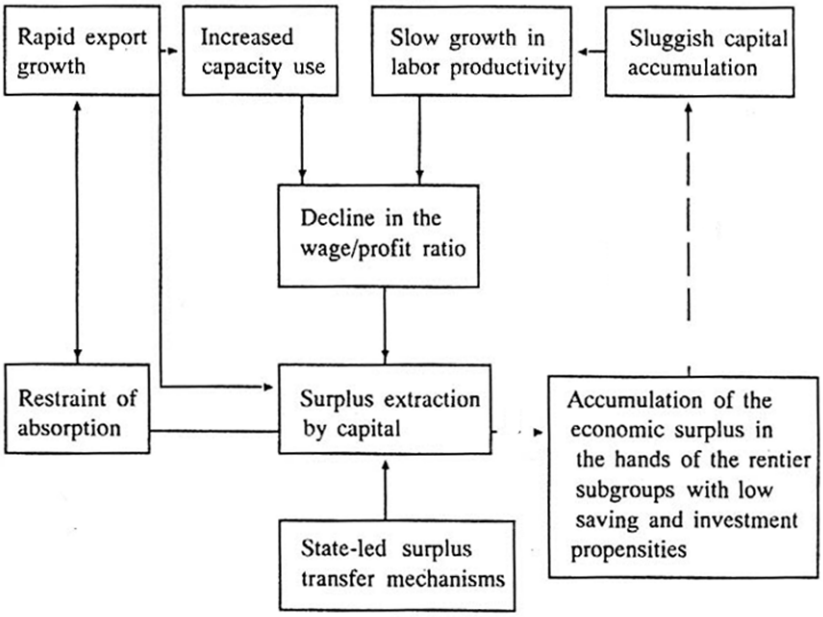
Table 5.18. Distribution of income by 20 percent groups, 2000

Group	*Income of first 1% group (percent)*	*Group Household Income (million TL)*	*Six-Month Income per Family (million TL)*	*Monthly Income per Family (million TL)*	*Monthly Income per Family (US $)*
Most wealthy 20 percent	54,88	21,455,965,979	7,477	1,246	2130
Second 20 percent	19,03	7,439,996,949	2,593	432	739
Third 20 percent	12,61	4,930,024,253	1,718	286	489
Fourth 20 percent	8,63	3,373,997,566	1,176	196	335
Fifth 20 percent	4,86	1,900,072,789	662	110	189

Source: Sönmez, 2001: 76
Each group constitutes 2,869,504 families. In 2000, number of households was 14,347,522; Population of Turkey was 63,703,000; Average household constituted 4.4 persons; US$ 1 was equal to 585,000 TL.

Yeldan (1994) illustrates nonconformity between the export and accumulation targets of the adjustment experience in below figure.

Fig. 5.1. Structural schema of surplus extraction and disposition during structural adjustment in Turkey



Source: Yeldan, 1994: 87

Structural adjustment processes not only promotes an uneven income distribution, but also became the bastion of privilege for rent seeking groups supported with state policies.

> "Rent seeking involved both direct mechanisms, such as obtaining more favorable export subsidies (leading to significant overinvoicing practices), and indirect mechanisms, such as tax evasion, macro pricing policies and recording of existing legislation in crucial spheres of economic life… The basic inner conflict of such a mode of surplus transfer, namely the nonconformity between the industrialization targets and the emerging pattern of accumulation" (Yeldan, 1994: 88).

5.3.3. Industrial Strategies: the Negligence in Industrialization

Turkey, in fact, preferred the '*outward-looking*' strategy with introducing the '*export-oriented industrialization*' that as a part of SSAP. Firstly, it should be noted that it is not original. The outward-looking industrial strategies had been introduced at least by all late-industrializing countries such as South Korea, Taiwan, the Philippines, Thailand, India, Brazil and Argentina. It may be said that Turkey is the last country which achieved relatively industrialization experiences in comparison with other less developed countries. Especially success of Taiwan in 1970s (when the times of 'Great Depression'), based on

integration of the world market and rapid industrialization according to small-scale industries, motivated other less developed countries in order to leap-up the 'industrialized countries' group. Actually, the international capitalist regulators, e.g. IMF and World Bank, encouraged the export-oriented model as to point at the Taiwan Model. And finally, the late industrialized countries, including Turkey, "resemble Japan's former zaibatsu have sprung up since the Second World War. These groups have internalized the learning process to the point where diversifying into new industries appears to represent an important economy of scope" (Amsden, 1994: 27).

The Taiwan model, with its emphasis on small firms and exports, has become doubly attractive because most other late-industrializing countries have expanded their exports in order to repay their foreign debts. Taiwan's economy is one of the most export-oriented in the world with exports amounting to over 50 percent of GNP. On the other hand, the Taiwan Model causes incredible dependency relation between developed and less developed countries.

> "(The late-industrializing countries) …have had to develop without the competitive asset of new pioneering technology, the driving force behind industrialization in eighteenth-century Britain and nineteenth-century United States. Instead, the process of late industrialization has been characterized by borrowing technology and the conscious mobilization of institutions – often big business and state bureaucracies – deliberately to push industrialization ahead" (Amsden, 1994: 25)

Furthermore, in Turkey, it is seen that "the Turkish manufacturing industry became more, not less, dependent on unskilled, labour-intensive production between 1976 and 1987. Average labour productivity tended to decrease rather than increase over time" (Amsden, 1994: 29).

In addition, Turkish manufacturing industry has not benefited from positive changes created by export orientation policies. Although there was a sharp increase in the number of investment certificates, which increased from a total of 4.802 during 1968-80 to about 25.000 during 1981-90, the share of manufacturing (in investment benefiting from the incentives granted through these certificates) declined from 90,1 percent in 1979 to 26,0 percent in 1983 and 40,3 percent in 1987 and 1988 (Güvemli, 1992). The sectoral distribution of investment certificates within manufacturing represented a move away from intermediate and investment goods toward export-oriented consumer goods such as textiles and clothing, which on average accounted for 45,3 percent of the total during 1988-90 (Şenses, 1994: 58-9) (see Table 5.19).

The share of manufacturing in total fixed investment by the public sector declined from 23,8 percent in 1973 and 20,7 percent in 1978 to 18,7 percent in 1984 and only 4,5 percent in 1990 (Table 5.18). This was reflected in the severe decline in the share of public sector manufacturing investment in total fixed investment, failing from 12 percent at the end of the 1970s to 7,3 percent in 1985, 5,7 percent in 1986, and 3,3 percent in 1987. Additionally, the poor record of public sector investment in the manufacturing sector can be linked to sharp increase in public sector deficits after the mid-1980s (Şenses, 1994: 59).

Table 5.19. Sectoral distribution of gross fixed investment, 1973-90

Gross Fixed Investment		1973	1978	1980	1984	1987	1990
PUBLIC SECTOR	*Agriculture*	9,3	10,4	7,0	8,8	9,1	9,5
	Manufacturing	23,8	20,7	28,9	18,7	6,3	4,5
	Energy	13,1	18,6	24,4	25,9	24,3	21,4
	Education	7,2	4,8	3,6	3,3	4,6	7,0
	Transportation	26,4	23,9	18,2	22,5	32,7	34,1
	Other	20,2	12,6	17,9	20,8	23,0	23,5
	TOTAL	100,0	100,0	100,0	100,0	100,0	100,0
		[46,9]	[50,6]	[56,0]	[60,0]	[53,6]	[43,5]
PRIVATE SECTOR	*Agriculture*	14,3	11,5	8,2	13,3	6,6	4,8
	Manufacturing	33,9	29,9	24,6	27,6	26,3	27,5
	Transportation	12,6	22,6	12,1	20,1	12,4	12,7
	Tourism	1,9	1,0	0,6	1,2	3,8	6,2
	Housing	33,0	31,5	49,3	30,8	43,7	41,1
	Other	4,3	3,5	5,2	7,0	7,2	7,7
	TOTAL	100,0	100,0	100,0	100,0	100,0	100,0
		[53,1]	[49,4]	[44,0]	[40,0]	[46,4]	[56,5]

Source: State Planning Organization, Main Economic Indicators (1973-81), Ankara, April 1981, and Central Bank, Annual Report, various issues for other years cited in Şenses, 1994: 60

Table 5.20. Import in manufacturing industry, 1997-1999

SECTORS	1997		1998		1999		Annual Growth	
	Value	%	Value	%	Value	%	1997-98	1998-99
Consumer Goods	132658	10,5	119903	9,6	129052	9,7	-9,6	7,6
Intermediate Goods	418681	33	440243	35,4	470684	35,3	5,2	6,9
Investment Goods	716460	56,5	685191	55	735401	55,1	-4,4	7,3
TOTAL	1267799	100	1245338	100	1335137	100	-1,8	7,2

Source: SPO, 1999: 48

Table 5.21. Export in manufacturing industry, 1997-1999

SECTORS	1997		1998		1999		Annual Growth	
	Value	%	Value	%	Value	%	1997-98	1998-99
Consumer Goods	411.537	57,1	427.197	55,4	463.031	55,2	3,8	8,4
Intermediate Goods	179.186	24,9	180.315	23,4	185.607	22,1	0,6	2,9
Investment Goods	129.973	18,0	163.396	21,2	190.903	22,7	25,7	16,8
TOTAL	720.696	100,0	770.908	100,0	839.541	100,0	7,0	8,9

Source: SPO, 1999: 47

Table 5.22. Changes in industrial production, 1997-1999

SECTORS	1997		1998		1999		Annual Growth	
	Value	%	Value	%	Value	%	1997-98	1998-99
Consumer Goods	1.402.913	41,9	1.448.260	42,7	1.497.515	42,9	3,2	3,4
Intermediate Goods	1.338.077	40,0	1.354.751	39,9	1.398.341	39,8	1,2	2,6
Investment Goods	607.006	18,1	951.518	17,4	601.344	17,2	-2,6	1,7
TOTAL	3.347.996	100,0	3.394.528	100,0	3.488.200	100,0	1,4	2,8

Source: SPO, 1999: 46

Şenses states "there has been a clear neglect of industrialization under SSAP, as evidenced also from the declared objective of the government to withdraw from direct manufacturing activity. This withdrawal was based primarily on the sharp reduction in public investment in the manufacturing sector as an integral part of the broader privatization objective" (Şenses, 1994: 59). This neglect may cause that the Turkey's economy is much unstable and weak as being in 1990s (see section 2.2.1 in this study for 'the engine of economic growth'). Turkey has run into many crises such as 'Gulf Crisis' in 1991, structural crisis in 1994, conjectural crisis in 1998 (EBSO, 1999), November Crisis in 2000 and February Crisis in 2001. Today, we live still under the crisis conditions probably due to in lieu of the neglect of industrialization after 1980 (see Table 5.20, 5.21, and 5.22).

5.4. Changes in Regional Structure and Main Urbanization Trends

In this section, the changing regional structure of Turkey and the urbanization processes within the country in the post-1980 period are examined. The units for the analyses and interpretations are identified as the geographic regions and provinces. There is no doubt that none of these units provide responsive delineations in relation to the explanations of the changes in regional and urban structure. Because there exists no up-to-date and satisfactory regional borders, and all the available data sets are coded with these units, they have been inevitably used.

This section has three parts. The first includes the regional analyses, and focuses on two important changes: the former concerns the question how "uneven spatial development", which dramatically emerged before 1980, takes a form after 1980 (*more detailed analyses related with uneven spatial development are also placed in the following sections*), and the latter includes the analyses on sectoral advantages and possibility of growth of each geographical region since 1980. In addition, this part consists of the definition of the relationship between uneven development and inter-sectoral distribution.

In the second part, urban intensification centers are examined with respect to population movements and changes in provinces before and after 1980.

In the third part, the restructuring processes of major cities in Turkey are evaluated, and then, sectoral growth and the distribution of the main sectors are relatively analyzed.

5.4.1. Increasing Uneven Spatial Development

It may be considered as an inevitable process that the new regulation mechanisms identified different priorities with respect to the new regional structures and urbanization processes during the post-1980 period. Due to Turkey's efforts of integrate to the world economy, new spatial regulations were emerged. Thus, the regional structure of the country has been unraveled and restructured. The idea that the disparities among the regions have been raised in this period is widely accepted (Eraydın, 1992: 115) (see Table 5.23, and 5.24.).

According to Table 5.23, it can be said that the regional disparities reached considerable levels in the pre-1980 period. In this period, the inter-regional difference between less-developed and developed regions reached to almost three times by income values. Many scholars claim that this figure is related to the industrialization policies, which the investments were intensified on particular regions in order to encourage private

sector during 1960s and 1970s (see Boratav, 1993; Eraydın, 1992; Öniş, 1994; Özmucur and Karataş, 1994; and Şenses, 1994).

Table 5.23. Income per capita by the geographical regions, 1980-86

Regions	Income per Capita (1979 Prices)		Increase (%)	Income per Capita (Max=100)	
	1980	1986	1980-86	1980	1986
Marmara and Aegean Regions	68.973	88.164	4,18	100,00	100,00
Mediterranean Region	51.504	54.325	0,89	74,73	61,62
Central Anatolia Region	38.267	45.920	3,09	55,52	52,08
Black Sea Region	37.700	41.808	1,74	54,70	47,42
Eastern and Southeastern Anatolia Regions	23.128	25.723	1,79	33,56	29,18

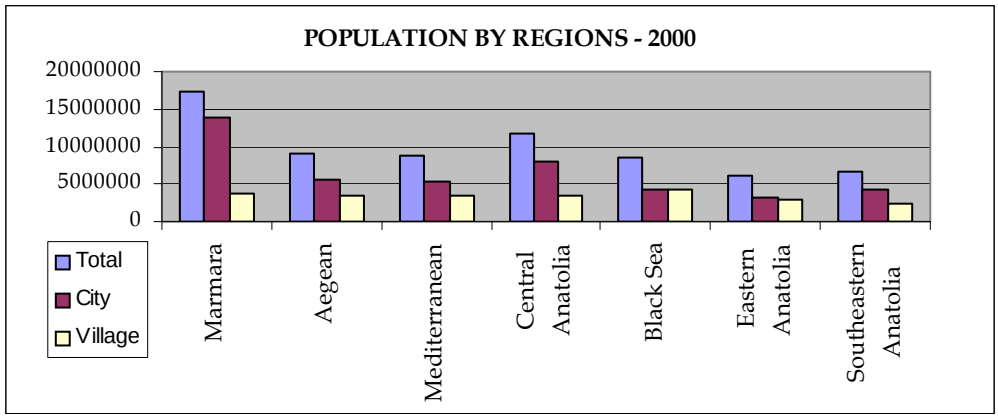
Source: Eraydın, 1992: 116

Table 5.24. GDP per capita by the geographical regions, 1990-2000

Regions	Income per Capita (1987 Prices)		Growth Rate (%)	Income per Capita (Max=100)	
	1990	2000	1990-00	1990	2000
Marmara and Aegean Regions	2.093.734	2.471.946	18,06	100,00	100,00
Mediterranean Region	1.471.949	1.600.244	8,72	70,30	64,74
Central Anatolia Region	1.364.945	1.644.222	20,46	65,19	66,52
Black Sea Region	999.032	1.278.632	27,99	47,72	51,73
Eastern and Southeastern Anatolia Regions	745.882	781.231	4,74	35,62	31,60

Source: SIS, 1995 and 2001

Fig. 5.2. Distribution of population by the geographic regions in Turkey, 2000



Source: Compiled from SIS, 2002

Eraydın claims that regional disparities are not only the consequences of the new regime of accumulation, but also the natural consequences of a reckless kind of policy and the lack of the development of a new regional theory (Eraydın, 1992: 115). Eraydın's claim on the lacking of policy is, for sure, a right emphasis. On the other hand, that the existing regime of accumulation accelerated the uneven development is worth attention. Moreover,

the adaptation process of the third world countries to the changing world economy following the great depression years has caused much exploitation is often highlighted (see Eraydın, 1992; Boratav, 1993; Öniş, 1994; and Şenses, 1994). Hence, the emphasis on the idea that the 'new' regime of accumulation has caused the disparities between regions were opened should not be neglected.

According to the distribution of GDP per capita in the period between 1990 and 2000 indicates that the disparities has gone on. On the other hand, it is noticeable that Central Anatolia Region has had higher GDP value than Mediterranean Region. It may be said that declining the tourism income during 1990s, which experienced many crises, has led to this shift. The state of underdevelopment of eastern regions continued with respect to production and income levels.

5.4.1.1. Regional Growth in Relation to Sectoral Advantages

In this part, the shift-share analysis is implemented on the geographic regions by main sectors, also includes three sub-sectors for manufacturing industry, in the period of 1987-2000 (the data of the pre-1980 period could not be gathered).

According to the analyses, it is seen that each region has reached development tendencies in particular sector(s), gained competitive advantages, adapted to the economic transformations by means of inter-sectoral changes. With the same respect, the regions which lost growth tendencies and/or competitive advantages are illustrated as 'upward transitional' or 'downward transitional' regions.

The crucial point to be noticed here is that such analyses in less developed countries do not provide the absolutely true results in relation to changing international relations in different periods. Moreover, the factors, e.g. there is no widening of the economic growth to differing sectors, causes the lack of the results representing the expected positive interactions among the sectors, which all affect the analyses. In spite of these lacks, it is possible to reach satisfactory results in order to evaluate general and sectoral structure.

The findings of the analyses according to 'industrial mix component growth', competitive growth component' and 'regional share' are summarized as follows (see Table 5.25):

The Mediterranean Region has had the high growth rates, competitive advantages, and adequacies to enlarge its investments (showed the 'growth pole' (GP) or 'development

core' feature) in the sectors of 'trade' (4) and 'import duties' (12). The growth in the sectors of 2a, 3, 6, 8, 9, and 11 has almost ceased, and the investment opportunities have been nearly plugged (showed the 'Fall Area' (FA) feature). Although the high growth rates in the sectors of 2b, 2c, and 5 have remained, the competitive advantages have got lost (showed the 'Downward Transitional Area' (DTA) feature). It may be said that this situation has caused the adaptation problems, and the bottlenecks of new investments. On the other hand, the opportunities of investment in the sectors of 1, 7, and 10 have been raised, the competition advantages, however, increased. These sectors have not achieved the adequate growth rate still (showed the 'Upward Transitional Area' (UTA) feature).

Although ***East Anatolia Region*** has showed the GP feature only in the sector of 'import duties', it has showed the FA feature in nine sectors. On the other hand, it has had the greater growth rate in the sectors of 2b, 2c, 4, and 5 (showed the DTA feature).

Aegean Region has showed the GP feature in four different sectors: 'manufacturing', 'trade', 'transportation and communication', and 'import duties'. On the other hand, it has showed the FA feature in the sectors of 1, 6, 8, 9, and 11. Although the growth rate is lower than national mean in the sectors of 2a, 3, 7, and 10, the region has had competitive advantages in these sectors.

South East Anatolia Region has the feature of GP in the sectors of 2c, 5 and 12 it is may be said that public sector is generally dominated in the sectors of 2c and 5. The region has showed the low growth rates and narrowing opportunities in six sectors (the group of FA). In addition, only in the sectors of 2b and 4 have had relatively higher growth rates, but these sectors lost their competition capability. The sectors that the region could prevent their competition advantages have been agriculture and governmental services.

Central Anatolia Region has showed the GP features in the sectors that have limited growth capability such as 'electricity, gas and water', and 'import duties'. Although the region has had the higher growth rates than the national mean in 'manufacturing', 'trade', and 'transportation and communication' sectors, the competition advantages and investment opportunities have narrowed in these sectors.

Black Sea Region has showed the GP features in the sectors of 'trade', 'transportation and communication'. However, the region has showed the FA feature in seven sectors. The competition advantages and investment opportunities of some sectors, e.g. 'construction', and 'ownership of dwelling', have flourished.

Marmara Region has had the considerable superiority in 'manufacturing' and 'trade' sectors, and gained the high coefficient indicators both in the growth rates and

competitive advantages. Another GP feature of the region has been represented in the group of 'electricity, gas, and water'. Moreover, the region has had the investment and competition advantages in five sectors. On the other hand, the region has showed the FA feature in the sectors of 1, 2a, 7, and 11.

In the sectors of 'financial institutions', 'business and personal services', and 'imputed bank service charge', the region has had higher kij and cij values than the national means. But as these sectors could limitedly contribute to the national economy, the region is included in the group of UTA.

Table 5.25. The results of the shift share analysis by geographic regions according to GDP values of economic activities, 1987-2000 (*)

	MEDITERRANEAN REGION	1987	2000	gij	kij	cij	Type
1	*Agriculture*	2.097.033	2.817.045	1.234.758,81	-817.767,86	303.021,05	3
2a	*Mining and Quarrying*	89.602	93.213	52.758,76	-42.579,82	-6.567,94	4
2b	*Manufacturing*	1.742.801	2.394.935	1.026.182,65	251.033,04	-625.081,69	2
2c	*Electricity, Gas, Water*	186.309	374.416	109.701,03	183.942,16	-105.536,19	2
3	*Construction*	581.764	606.057	342.549,79	-284.966,95	-33.289,85	4
4	*Trade*	1.714.092	3.629.931	1.009.278,44	347.888,48	558.672,08	1
5	*Transportation and Communication*	1.161.195	1.863.123	683.725,89	254.140,09	-235.937,98	2
6	*Financial Institution*	158.826	178.697	93.518,70	-47.005,07	-26.642,63	4
7	*Ownership of Dwelling*	491.095	659.059	289.162,77	-147.430,90	26.232,13	3
8	*Business and Personal Services*	186.312	279.486	109.702,80	-7.521,66	-9.007,13	4
9	*(Less)Imputed Bank Service Charges*	123.737	127.962	72.857,87	-48.290,65	-20.342,21	4
10	*Government Services*	406.409	557.420	239.298,62	-113.234,19	24.946,57	3
11	*Private Non-profit Institution*	14.672	18.860	8.639,05	-4.385,78	-65,28	4
12	*Import Duties*	231.041	587.447	136.039,78	204.298,23	16.067,99	1
13	*GDP (in purchasers' value)*	8.937.413	13.931.730	5.262.458,64			
	EAST ANATOLIA REGION	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	*Agriculture*	878.173	1.046.155	517.079,06	-342.456,06	-6.641,00	4
2a	*Mining and Quarrying*	39.658	27.235	23.351,12	-18.845,90	-16.928,22	4
2b	*Manufacturing*	315.917	430.833	186.015,81	45.504,68	-116.604,49	2
2c	*Electricity, Gas, Water*	186.891	171.111	110.043,72	184.516,76	-310.340,48	2
3	*Construction*	235.545	216.055	138.691,79	-115.377,61	-42.804,18	4
4	*Trade*	417.066	676.572	245.573,59	84.646,83	-70.714,42	2
5	*Transportation and Communication*	302.805	467.277	178.295,31	66.272,15	-80.095,46	2
6	*Financial Institution*	50.221	49.031	29.570,74	-14.863,07	-15.897,67	4
7	*Ownership of Dwelling*	205.612	247.016	121.066,87	-61.726,47	-17.936,40	4
8	*Business and Personal Services*	28.561	36.194	16.817,07	-1.153,05	-8.031,02	4
9	*(Less)Imputed Bank Service Charges*	33.341	29.612	19.631,59	-13.011,94	-10.348,65	4
10	*Government Services*	390.025	469.359	229.651,51	-108.669,26	-41.648,26	4
11	*Private Non-profit Institution*	9.511	7.116	5.600,19	-2.843,04	-5.152,15	4
12	*Import Duties*	27.704	75.247	16.312,46	24.497,29	6.733,25	1
13	*GDP (in purchasers' value)*	3.054.348	3.889.589	1.798.437,65			
	AEGEAN REGION	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	*Agriculture*	2.700.757	3.198.579	1.590.238,92	-1.053.198,62	-39.218,30	4
2a	*Mining and Quarrying*	426.530	586.267	251.146,11	-202.691,59	111.282,48	3

2b	*Manufacturing*	2.348.037	4.088.832	1.382.553,05	338.211,23	20.030,72	1
2c	*Electricity, Gas, Water*	405.644	832.530	238.848,17	400.490,76	-212.452,93	2
3	*Construction*	713.452	810.526	420.089,31	-349.472,01	26.456,71	3
4	*Trade*	2.523.417	4.667.028	1.485.818,95	512.147,37	145.644,68	1
5	*Transportation and Communication*	1.276.695	2.311.283	751.733,71	279.418,51	3.435,77	1
6	*Financial Institution*	341.187	350.147	200.895,10	-100.975,40	-90.959,70	4
7	*Ownership of Dwelling*	668.869	961.010	393.838,29	-200.800,17	99.102,88	3
8	*Business and Personal Services*	272.637	412.303	160.532,02	-11.006,72	-9.859,30	4
9	*(Less)Imputed Bank Service Charges*	247.065	229.676	145.474,91	-96.421,69	-66.442,22	4
10	*Government Services*	483.192	638.894	284.509,39	-134.627,57	5.820,18	3
11	*Private Non-profit Institution*	4.078	3.695	2.401,18	-1.219,00	-1.565,17	4
12	*Import Duties*	474.269	1.272.668	279.255,42	419.372,83	99.770,75	1
13	*GDP (in purchasers' value)*	12.391.698	19.904.085	7.296.384,11			

	SOUTHEAST ANATOLIA REGION	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	*Agriculture*	1.038.278	1.722.101	611.350,85	-404.891,28	477.363,43	3
2a	*Mining and Quarrying*	340.495	210.506	200.487,64	-161.806,84	-168.669,80	4
2b	*Manufacturing*	373.317	635.814	219.813,64	53.772,58	-11.089,22	2
2c	*Electricity, Gas, Water*	109.742	323.925	64.617,44	108.347,85	41.217,71	1
3	*Construction*	300.502	270.332	176.939,27	-147.195,66	-59.913,61	4
4	*Trade*	673.118	1.134.578	396.340,15	136.614,60	-71.494,76	2
5	*Transportation and Communication*	342.876	750.609	201.889,60	75.042,12	130.801,27	1
6	*Financial Institution*	52.110	63.719	30.683,01	-15.422,12	-3.651,88	4
7	*Ownership of Dwelling*	357.476	395.467	210.486,26	-107.317,34	-65.177,92	4
8	*Business and Personal Services*	43.878	61.909	25.835,91	-1.771,41	-6.033,49	4
9	*(Less)Imputed Bank Service Charges*	45.828	47.151	26.984,09	-17.885,22	-7.775,87	4
10	*Government Services*	268.593	410.272	158.150,86	-74.835,72	58.363,86	3
11	*Private Non-profit Institution*	15.603	14.702	9.187,24	-4.664,07	-5.424,17	4
12	*Import Duties*	35.749	121.226	21.049,45	31.611,09	32.816,46	1
13	*GDP (in purchasers' value)*	3.905.909	6.068.009	2.299.847,23			

	CENTRAL ANATOLIA REGION	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	*Agriculture*	2.380.288	2.444.893	1.401.542,84	-928.227,18	-408.710,66	4
2a	*Mining and Quarrying*	172.457	382.958	101.544,80	-81.953,40	190.909,60	3
2b	*Manufacturing*	1.589.923	2.741.025	936.166,21	229.012,49	-14.076,70	2
2c	*Electricity, Gas, Water*	158.608	437.945	93.390,34	156.593,07	29.353,59	1
3	*Construction*	1.573.031	1.664.123	926.219,99	-770.521,79	-64.606,20	4
4	*Trade*	2.581.471	4.406.031	1.520.001,86	523.929,89	-219.371,75	2
5	*Transportation and Communication*	1.752.824	3.064.882	1.032.084,32	383.624,50	-103.650,82	2
6	*Financial Institution*	286.871	274.180	168.913,17	-84.900,40	-96.703,77	4
7	*Ownership of Dwelling*	723.783	988.937	426.172,33	-217.285,82	56.267,49	3
8	*Business and Personal Services*	294.613	432.747	173.471,76	-11.893,92	-23.443,84	4
9	*(Less)Imputed Bank Service Charges*	184.635	160.231	108.715,36	-72.057,22	-61.062,13	4
10	*Government Services*	846.063	1.020.097	498.172,30	-235.731,14	-88.407,15	4
11	*Private Non-profit Institution*	203.820	294.931	120.011,72	-60.926,18	32.025,46	3
12	*Import Duties*	256.632	1.089.037	151.108,08	226.927,10	454.369,82	1
13	*GDP (in purchasers' value)*	12.635.749	19.087.554	7.440.084,34			

	BLACK SEA REGION	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	*Agriculture*	2.141.489	2.342.893	1.260.935,05	-835.104,11	-224.426,94	4
2a	*Mining and Quarrying*	225.497	179.262	132.775,41	-107.158,57	-71.851,84	4
2b	*Manufacturing*	1.200.752	1.972.902	707.017,54	172.956,31	-107.823,85	2
2c	*Electricity, Gas, Water*	135.183	284.706	79.597,41	133.465,66	-63.540,07	2

3	*Construction*	457.089	508.859	269.139,62	-223.897,07	6.527,45	3
4	*Trade*	1.179.077	2.144.581	694.255,03	239.302,97	31.946,00	1
5	*Transportation and Communication*	927.624	1.717.292	546.196,41	203.020,55	40.451,04	1
6	*Financial Institution*	164.850	146.748	97.065,71	-48.787,89	-66.379,81	4
7	*Ownership of Dwelling*	369.985	507.341	217.851,72	-111.072,65	30.576,93	3
8	*Business and Personal Services*	98.078	149.739	57.749,53	-3.959,54	-2.128,99	4
9	*(Less)Imputed Bank Service Charges*	120.794	90.947	71.124,99	-47.142,09	-53.829,90	4
10	*Government Services*	465.941	548.824	274.351,79	-129.821,07	-61.647,72	4
11	*Private Non-profit Institution*	34.148	27.603	20.106,76	-10.207,57	-16.444,19	4
12	*Import Duties*	170.933	350.846	100.647,45	151.147,67	-71.882,13	2
13	*GDP (in purchasers' value)*	7.449.851	10.790.650	4.386.563,85			
	MARMARA REGION	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	*Agriculture*	2.078.254	2.390.121	1.223.701,50	-810.444,72	-101.389,78	4
2a	*Mining and Quarrying*	181.065	163.461	106.613,30	-86.044,01	-38.173,29	4
2b	*Manufacturing*	8.747.869	16.013.409	5.150.852,81	1.260.042,97	854.644,23	1
2c	*Electricity, Gas, Water*	299.410	1.392.610	176.296,29	295.606,34	621.297,37	1
3	*Construction*	1.590.268	1.915.302	936.369,35	-778.965,03	167.629,69	3
4	*Trade*	5.761.626	9.948.826	3.392.516,22	1.169.367,41	-374.683,63	2
5	*Transportation and Communication*	2.896.325	5.480.606	1.705.391,76	633.892,06	244.997,17	1
6	*Financial Institution*	1.233.906	1.895.502	726.539,02	-365.178,49	300.235,47	3
7	*Ownership of Dwelling*	1.566.948	1.890.109	922.638,24	-470.411,13	-129.066,11	4
8	*Business and Personal Services*	811.621	1.315.251	477.892,42	-32.766,21	58.503,79	3
9	*(Less)Imputed Bank Service Charges*	1.241.434	1.707.714	730.971,60	-484.492,58	219.800,98	3
10	*Government Services*	928.826	1.314.511	546.904,17	-258.790,68	97.571,51	3
11	*Private Non-profit Institution*	36.958	44.295	21.761,32	-11.047,54	-3.376,78	4
12	*Import Duties*	1.455.314	3.061.206	856.906,77	1.286.862,85	-537.877,62	2
13	*GDP (in purchasers' value)*	26.346.957	45.117.496	15.513.412,17			

Source: Compiled and calculated from SIS, 2000
(*) National rate of change in the sectors regularly: 0,20; 0,11; 0,73; 1,58; 0,10; 0,79; 0,81; 0,29; 0,29; 0,55; 0,20; 0,31; 0,29; 1,47; 0,59 and national growth rate for 1987-00 is 0,59
gij: Regional share related with national growth; **kij**: Industrial mix component growth; **cij**: Competitive growth component (Total regional shift)
Types: 1- Growth Pole (GP); 2-Downward Transitional Area (DTA); 3-Upward Transitional Area (UTA); 4-Fall Area (FA)

If the results of the shift analyses are compared with the per capita income and GDP values, it may be stated that 'manufacturing' sector is the most efficient sector in order to develop regional economy. *The more detailed analyses related to this context are given in the following sections of the case study*.

It may be stated that the relatively balanced values of Mediterranean Region are related to the 'trade' sector (for sure, tourism based), and the relatively growth experienced in Black sea Region is related to the sectors of 'trade', 'transportation and communication', and 'construction'.

In the eastern regions, although the sectoral advantage has been gained in the sectors that the public sector is dominated, public investments have been inadequate in order to crate stable economy. Because the growth of other sectors was neglected, the disparities between the eastern and western regions have been opened.

Central Anatolia Region's geographic advantages have caused the rapid growth in the sector of 'transportation and communication'. Besides the capital city is located in this region, some indicators have reached high values. On the other hand, the development level and sectoral advantages have been relatively low.

5.4.2. Demographic Changes and Emerging Urban Centers

Eraydın (1992: 122) claims that the transition to flexible production is related to population movements by depending on the division of labour and its organization. Indeed, the examples that emerged in the second part of the 20th century, e.g. Silicon Valley and Third Italy, have created population movements. On the other hand, as Eraydın says, *it is not possible to examine the flexible production in less developed countries only with population movements.* Particularly it is known that there are many different determinants of the migration from rural to city.

In short, it may be assumed that population movements show us some results like that:

- Migration is important in providing the information related to the features of spatial structure as well as in determining the size of settlements.
- The direction of population movements and emerging urban centers are important because of the social and economic values that it has created.
- The defining of urban centers is important as to perceive the general urban structure.
- To point at the new urban centers provides to reach deepening analyses in following sections.

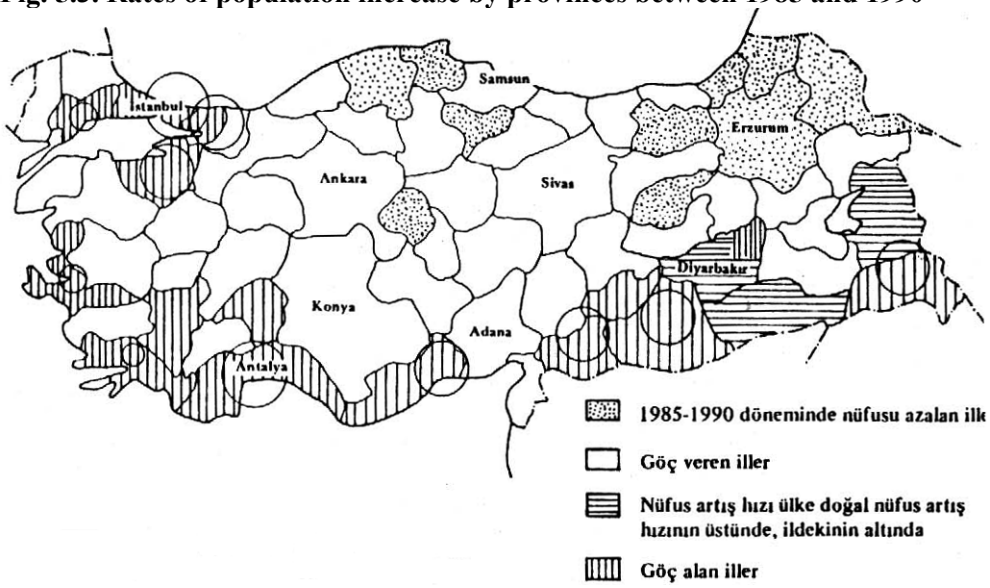
5.4.2.1. The General Structure before 1990

İstanbul in Marmara Region, İzmir in Aegean Region, and Ankara in Central Anatolia Region have been the most essential migration centers since 1960s. Similar tendencies in the years between 1965 and 1970 are supported by founding new centers like Bursa, Kayseri, G.Antep, Konya, and Elazığ (Yener, 1977 cited in Eraydın, 1992: 123). In the period between 1970 and 1975, the process of 'diffusion in the region' appeared, and peripheries of the metropolitan centers began to get migration. Similar tendencies continued in the years 1975-80, and the migration boom emerged in İstanbul Metropolitan

Area. While not seeing the different processes in 1980s, the importance of İstanbul has increased day by day (Eraydın, 1992: 123).

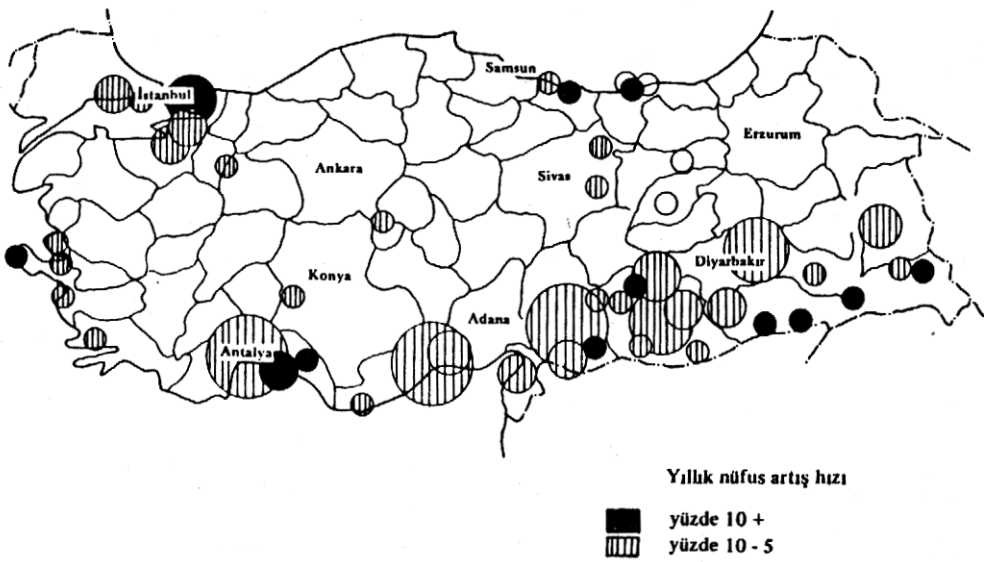
Eraydın explains the population changes of metropolitan cities in 1970-90 in relation to two factors: the first is the process of escaping from the centers, and the second is the process of directing the population movements by a foremost center. As a result of these factors, she states that metropoles have not lost their importance, but some new urban centers have been emerged (Eraydın, 1992: 124). Indeed, it may be seen that metropoles keep their importance during 1990s: 1/5 of the national population still lives in metropoles. Furthermore, 62 percent of overall population lives in İstanbul. This can be indicated that the process, which is assumed by Eraydın, have continued in recent years.

Fig. 5.3. Rates of population increase by provinces between 1985 and 1990



Source: Eraydın, 1992: 125

Fig. 5.4. The provinces those had rapid population growth between 1985 and 1990



Source: Eraydın, 1992: 125

Between 1985 and 1990, ten cities, which take place in east and north of the country, lost their population. On the other hand, the cities that had been migrated took place in shores of the country. The first group is intensified around İstanbul, the second is the shores of Mediterranean Region, and the third is some cities in Southeast Anatolia Region. The new centers are taken attention providing by four determinants: first is being export center; the second is replacing on the main trade routes; the third is being tourism center; and the fourth is supporting with big projects like 'Güneydoğu Anadolu Projesi' (GAP). In addition, Antalya, İçel, Urfa and Diyarbakır were emerged as 'new urban centers' (Eraydın, 1992: 126).

5.4.2.2. Main Trends after 1990

In the period between 1990 and 2000, the provinces those have had the highest population increase are Antalya and İçel in the Mediterranean Region; İstanbul, Bursa, Tekirdağ, Yalova and Kocaeli in Marmara Region; Şanlıurfa, Van, Hakkari, Şırnak, Batman, G.Antep, Mardin and Diyarbakır in East and Southeast Anatolia Regions; Muğla, and İzmir in Aegean Region; Konya and Ankara in Central Anatolia Region; and Trabzon in Blacksea Region. The overall population increase is higher than 20 percent in those provinces. Antalya (42 percent) and Şanlıurfa (37 percent) are taken attention owing to high values. Indeed, it may be said that the new urban centers have been intensified in four regions. During the same period, population increase has been continued in İstanbul, which have reached 33 percent. The rates of increase are 22 percent in İzmir, and 21 percent in Ankara.

According to the urban population growth, the metropoles, which have probably reached their settlement borders, have taken place behind the row. The urban growth rates have been made 29 percent in İstanbul, 25 percent in İzmir, and 22 percent in Ankara which all are lower than Turkey's mean. The highest growth rates of urban population are made in the East and Southeast Anatolia regions. Ten provinces that belonged to east regions have had over than 40 percent increase. This may be examined parallel with the existing civil war in that period, because it is known that emptying the rural areas of east regions became a governmental policy in the years of 1990s. On the other hand, Antalya and Şanlıurfa have continued to increase their urban population as being in 1980s. In addition, Rize and Yozgat have evidently exposed the migration from rural areas to cities.

In the period between 1990 and 2000, the overall population decreased in the provinces of Edirne, Kırşehir, Sivas, Çorum, Zonguldak, Karabük, Kars, Bayburt, Artvin, Bartın, Kastamonu, Kilis, Sinop, Ardahan and Tunceli. The population growth rates materialized lower than Turkey's mean in full 57 provinces including Adana, Denizli, Hatay, Kayseri, Eskişehir, Manisa and Samsun. While urban population growth had negative (-) value in only Kilis, it may be noticeable that the provinces where located in different regions have had so low values such as Bayburt, Karabük, Zonguldak and Tunceli. Furthermore, 45 provinces have had lower rates than Turkey's mean by urban population growth, including İzmir, Ankara, Kocaeli, Adana, Kayseri, Samsun and Eskişehir.

In 1990s, many external factors have affected the population movements such as the civil war, special governmental policies, short-term crises, and the like. If we try to point at general results;

- The provinces in East and Southeast Anatolia Regions have had misleading rates especially in urban population growth due to decreasing rural population in the civil war years. Although there are no important transformations in economic and social structures during the period, some provinces, including Hakkari, Van, Şırnak, Ağrı, Mardin, Muş, Adıyaman, and Batman, have had abnormal values.
- In 1990s, İstanbul has protected its central position. Its periphery cities, meanwhile, have experienced rapid growth. Thus, the provinces in Marmara Region have been appeared as being the most attractive centers. In addition, it is taken attention that Kocaeli and Yalova have had the higher rates than overall population growth according to the urban population growth.
- Antalya has protected its central position because of developing tourism facilities.
- Although Ankara and İzmir could be still replaced as central cities, their growth tendencies have made lower than previous period. The provinces where locates in the periphery of both metropoles have reached the high growth rates.
- İçel, Gaziantep, Urfa, and Diyarbakır have protected their central positions.
- In Blacksea Region, Samsun has been getting lost its central position, while Trabzon has been taken attention as the only attractive center.
- Adana has significantly lost its central position.

In 1990s, it may be said that Eraydın's claim on the metropoles for 1970s and 1980s, *'the process of directing the population movements by a foremost center'*, has been proved. Particularly surrounding cities of three metropoles have faced the intensive

migration. In addition, similarly as Eraydın says, the provinces which takes steps by showing at least a feature of both being '*an exporting center*' and/or being '*an industrial center to restructured to adapt new accumulation processes*', have protected their attractive center roles. The attraction capabilities of tourism and trade facilities have been increased, while new spatial priorities have caused remaining disparities among the cities. Eventually, the spatial processes in cities, which diversified in 1980s compared to former years, have continued parallel to demands of the new accumulation regime, even though many outer factors existed such as civil war, uneven spatial development and the like.

5.4.3. The Restructuring Processes in Major Cities and Sectoral Advantages of Cities

The process that has experienced since the 1980s is important due to not only adaptation effort of Turkey to the world economy, but also emergence a new form of urbanization. This period has created both new functions and new difficulties for the cities. Especially the metropolitan areas and the foreign trade centers have been foremost cities. The accumulation that stemmed from the urban rent (see section 5.3.2. of this chapter) created synthetic sprawl around the metropolises. Hence, the major cities that achieved to integrate with these processes have been included the process of a rapid growth (Eraydın, 1992: 112-4).

Eraydın summarizes the urban consequences of the new regime of accumulation under these headings:

- The new migration waves to metropolitan areas were emerged.
- The new urban growth poles were appeared.
- The regional disparities were opened.
- The investments on residence, second housing, tourism facilities increased though productive investments decreased.
- The tourism sector gained considerable importance.

Kılıçkaya (2002: 219-0) similarly claims that the 1980s can be considered as '*a turning point for the spatial changes and transformations for the major cities in Turkey*'. Afterwards, Kılıçkaya listed the '*macro level evidences of these processes within the cities*':

- The international or the global relations of cities: The global inflows and outflows of capital (especially TNCs and MNCs) and investments (especially FDI), goods, people,

innovation, information realized in these cities; the rise of the number of firms with foreign capital.

- The relational competitiveness of these cities in global – regional – national - sub-national markets, the rising economic sectors within these processes, and the newly injected competitive activities, and land uses.
- International organizations (expo, fairs, sports tournaments (Olympiads, Olympic Games, F 1), festivals, biennales, congress and conferences) taking place in these cities.
- The city's economic, environmental, cultural, and legal agreements and responsive arrangements with international and supranational institutions (such as World Bank, IMF, UN, etc.), with foreign countries, cities and firms.
- The decentralization of governmental activities at the national level and the rise of local governmental arrangements, political changes with respect to territorial circumstances and boundary-jurisdiction changes.
- The large (also the intermediate and minor, even parcel) scale projects –such as infrastructure, transportation, land development, (organized) industrial districts, free zones, off-zones, great entertainment activities, tourism districts, hotels, business districts, office towers-plazas- developing global, inter-regional, and inter-city linkages.
- The information and communication infrastructure established within these cities (and the regions comprising a group of cities) articulating the city (and the region) to global networking.
- The specialization in rising sectors within the economic restructuring processes at the worldwide level.
- The relational positioning of these cities within the economic-geographical hierarchy in the country.
- The changes in the inter-relations between the cities with respect to economic, social, cultural, and political dimensions.
- Transformation of the property relations and property ownership pattern within their wider regions.
- The rise of NGOs and their inter-national relations.
- The rise of producer services, especially finance, real estate, insurance, and transportation.
- The emergence of gated communities within cities and their wider regions.

- The decentralization of industry from the core-cities and CBDs, and mixed use developments within the cities.
- The suburban growth, urban sprawl, and urban decline.
- The consumption culture imposed by the popular culture has been restructuring the consumption patterns and consumption spaces.

Related to the above changes, the integration to foreign markets and the sectoral growths especially in transportation, financing, communication and insurance have been mostly concentrated in three major cities. Among them, İstanbul has a considerable superiority (see Table 5.26).

In parallel to the changes in the accumulation channels, the national urbanization growth rate raised to 4,91 percent in the period of 1980-85 from 4,23 percent in the period of 1975-80. İstanbul and İzmir are typical examples of this increase (İkeda, 1990). At the same period, urban changes and the income disparities were clearly represented in the space (Eraydın, 1992: 118-9).

Table 5.26. The number of the firms with foreign capital in selected provinces in Turkey, March 2002

	Trade	Transport Activities	Comm-unication	Bank. & Fin. Act.	Finan-cial Leasing	Insu-ring	Invest. Financing	R&D Act.
İstanbul	**1493**	**189**	**31**	**35**	**8**	**28**	**56**	**12**
Ankara	**250**	**7**	**8**	**1**	0	0	**4**	**2**
İzmir	**120**	**4**	**1**	0	0	0	**3**	0
İçel	**116**	**5**	0	0	0	0	0	0
Antalya	**44**	**5**	0	**1**	0	0	2	0
Muğla	**22**	**5**	0	0	0	0	0	0
Bursa	**26**	**1**	0	0	0	0	0	0
Adana	**24**	**1**	0	0	0	0	0	0
Gaziantep	**21**	**1**	0	0	0	0	0	0
Manisa	**4**	0	0	0	0	0	0	0
Aydın	**3**	0	0	0	0	0	0	0
Konya	**3**	0	0	0	0	0	0	0
Uşak	**2**	0	0	0	0	0	0	0
Afyon	**1**	**1**	0	0	0	0	0	0
Denizli	0	0	0	0	0	0	**1**	0
Balıkesir	**1**	0	0	0	0	0	0	0
Kütahya	0	0	0	0	0	0	0	0
Diyarbakır	0	0	0	0	0	0	0	0

Source: Compiled from Ministry of Treasury (http://www.treasury.gov.tr) cited in Kılıçkaya, 2002: 221

Furthermore, the metropolitan populations and their shares in national total population have continued to increase between 1990 and 2000. The share has increased from 15,1 percent in 1970 to 21,0 percent in 2000. The urban population shares of

metropoles have remained same after 1980. This may be evaluated that urbanization processes have widened to whole nation in 1980s. On the other hand, İstanbul has always been the most attractive center, and its share in total metropoles populations has increased from 55,8 percent in 1970 to 61,8 percent in 2000 with a stable growth (see Table 5.27).

Table 5.27. The distribution of metropolitan population, 1970-2000

	1970	1980	1990	2000
Population of Metropolitan Areas				
İstanbul	2.980.000	4.670.000	6.630.000	8.800.000
Ankara	1.580.000	2.230.000	2.580.000	3.200.000
İzmir	840.000	1.300.000	1.760.000	2.230.000
TOTAL	5.400.000	8.200.000	10.970.000	14.230.000
Share of Metropolitan Areas (%)				
In Total Population	15,1	18,5	19,4	21,0
In Urban Population	46,4	43,9	32,6	32,3
Share of Istanbul in Metropolitan Areas	55,8	57,0	60,4	61,8

Source: Compiled from Eraydın, 1992: 120 and SIS, 2001 (www.die.gov.tr)

It is known that the emergence of new trade centers and tourism centers has been supported by the increase of the housing stock since 1984 when established the "Toplu Konut İdaresi". In the following years, although the housing funds provided from the establishment went in bottleneck, the construction industry has continued to grow during 1990s. In addition, the legalization process of 'gecekondu' districts went on in the 1980s, and consequently all the major cities faced to infrastructure problems.

Eraydın (1992: 121) emphasizes that the local governments could not be restructured as being experienced in the Western countries in these process. Thus, the transformations that would facilitate the transition to flexible production systems could not be achieved.

5.4.3.1. Provincial Growth in Relation to Sectoral Advantages

In this section, the shift-share analysis according to GDP values is implemented by main sectors (includes 3 sub-sectors in manufacturing industry) for the period of 1987-2000* according to the provinces.

As a result of the analyses, the provinces those having own growth trends and competitive advantages of certain sector(s) are defined. It may be said that they could develop rapid structural adaptations depending on the economical transformations. In the same way, the provinces those have lost their improvement and/or competition capabilities,

* Regular data of the years before 1987 could not be reached.

and the provinces those having transitional processes by upwardly or downwardly are divided.

The analyses are not seemed as meaningful as transferring and evaluating all provinces of Turkey. Especially the analyses of the provinces that have introverted economy do not supply noteworthy outcomes. Therefore, 13 provinces (İstanbul, Ankara, İzmir, Bursa, Adana, Konya, Gaziantep, İçel, Antalya, Diyarbakır, Kayseri, Kocaeli and Manisa) having the highest urban population by the year of 2000 are selected, and then these major cities are analyzed.

The cautions, which are given before analyses in section 5.4.1.1 are also in valid for this section: This kind of techniques cannot always provide effective result for Third World countries, nevertheless, correct results related to the general and sectoral structure can be acquired as follows:

İstanbul has showed "Growth Pole" (GP) feature in the sectors of 'manufacturing industry' and 'electricity, gas, and water'. Meanwhile, it has grown rapidly in basic sectors such as 'trade', 'transportation and communication' comparing with the country. In 'Agriculture' and 'non-profit institutions', which have had little contribution to the urban economy, the province has showed "Fall Area" (FA) feature. This is an interesting point that İstanbul has carried competition and investment advantages in five different sectors. Furthermore, it has grown rapidly in many sectors, and kept its attractiveness since as a result of being both the biggest metropolis of Turkey and the most powerful gate that opens to the international market. These are also verified by means of the high values of indicators.

Ankara presents a view that it partly lost its competitive advantages. On the other hand, it has been still growing faster in the basic sectors such as 'manufacturing industry', 'trade', and 'transportation and communication'. In the sector of 'ownership of dwelling', it has had competitive advantage. But, it has showed the FA feature in five sectors. This is verified that the city, though it is one of three attraction points, has been relatively losing its attraction features and growth trends.

The third biggest city of Turkey, **İzmir**, has showed GP feature only in, like the other big cities, 'electricity, gas water' and 'import duties' that has been related to the harbor functions. It has had a high growth rates in the sectors of 'manufacturing industry', 'trade', and 'transportation and communication'. Except these sectors, the competition advantages of İzmir have increased in some sectors such as 'ownership of dwelling' and 'governmental services' recent years.

There has been an important growth and competitive potential of **Bursa** particularly in 'manufacturing industry'. Although the city has been losing its competitive advantages in the sector of 'trade', it has got relatively competition advantages in the sector of 'business and personal services'.

Adana has showed GP feature in the sectors of 'electricity, gas, water' and 'trade'. Even though much the province still has rapid growth in 'manufacturing industry' and 'transportation and communication' sectors, it has begun to lose its competition power in these sectors. Furthermore, it has showed FA feature in the sector of 'agriculture', which had been effective in the city economy for a years.

In the sectors of 'manufacturing industry', 'trade', and 'transportation and communication', although **Gaziantep** has had increasing trends, it has been losing its competitive advantages. On the other hand, it has showed FA feature in eight sectors, this may be showed that the sectoral advantages of province are limited.

In **Konya**, 'agriculture' sector has had a similar view with Adana. Especially in the second half of 1990s, the share of 'agricultural' products has decreased significantly in national GDP. Hence, Konya has showed FA feature in this sector recent years. Even though the province has had the high growth rates in the sectors of 'trade' and 'manufacturing', competitive advantages in these sectors have been narrowed.

The specialization of **Antalya** and **İçel** in the sector of 'tourism' has reflected to the sectors of 'trade' and 'transportation and communications'. **Diyarbakır** has not showed any GP feature. However, it has reached to the high growth rates in four sectors. For **Manisa,** 'industry', 'trade' and 'transportation and communication' sectors have been important. **Kayseri** has been losing its competition advantages despite the high growth rate in 'manufacturing' sector, and this process has affected negatively the sectors of 'trade' and 'transportation and communication'.

In **Kocaeli** where is located in the diffusion area of İstanbul, the high growth in 'manufacturing industry' has limited significantly. Despite the competitive advantages that the city has caught in many sectors, it has too low growth rates and insufficient investment probabilities in some sectors, such as 'financial institutions', 'banking', and 'business' services. This may shows the effects of İstanbul.

It is possible to point out many different results according to the shift-share analyses. If a general evaluation is summarized:

- There is a specialization processes in provincial unit, which has similarities with the regional processes. The provinces have played foremost roles in certain sector(s).

- There is a total growth relatively in the metropolises those having wide hinterlands. On the other hand, İstanbul has been taken attention as the most important place by means of its competitive advantages, investment possibilities and growth rates.
- The rapid development is observed in the provinces those having the high growth rates and/or competition advantages in 'manufacturing industry'.
- In 'trade' sector, the growth advantages that spread relatively a wide group of provinces are noticeable.
- The sector of 'agricultural' has been losing its porter role for the big cities.
- Besides the regional disparities, the provincial disparities have been taken attention even among the major cities.
- Inter-sectoral changes in Turkey's major cities have been made after 1980s. This may be evaluated in relation to post-Fordism debates with *turning out the neo-Smithian economy*, pointed at by 'flexible specialization' approach that explained in previous chapters.

Table 5.28. The results of the shift share analysis by major provinces according to GDP values of economic activities, 1987-2000 (*)

	ISTANBUL	1987	2000	gij	kij	cij	Type
1	*Agriculture*	187.668	118.558	110.677,03	-73.359,62	-106.427,42	4
2a	*Mining and Quarrying*	78.048	81.033	46.028,74	-37.162,35	-5.881,38	4
2b	*Manufacturing*	4.914.420	9.049.716	2.898.274,77	703.269,15	533.752,08	1
2c	*Electricity, Gas, Water*	171.290	715.298	101.018,12	168.951,18	274.038,70	1
3	*Construction*	971.430	1.126.131	572.899,97	-476.748,08	58.549,11	3
4	*Trade*	4.347.158	7.308.211	2.563.732,52	878.217,53	-480.897,05	2
5	*Transportation and Communication*	1.881.196	3.398.459	1.109.433,65	409.957,78	-2.128,43	2
6	*Financial Institution*	983.881	1.634.110	580.242,93	-292.104,48	362.090,55	3
7	*Ownership of Dwelling*	1.066.781	1.186.859	629.133,13	-321.256,11	-187.799,03	4
8	*Business and Personal Services*	673.918	1.060.311	397.442,53	-27.838,29	16.788,76	3
9	*(Less)Imputed Bank Service Charges*	1.028.657	1.525.399	606.649,54	-402.416,08	292.508,54	3
10	*Government Services*	482.122	677.415	284.331,02	-134.653,86	45.615,84	3
11	*Private Non-profit Institution*	26.981	26.155	15.912,02	-8.090,48	-8.647,54	4
12	*Import Duties*	708.325	1.421.468	417.734,03	625.673,52	-330.264,55	2
13	*GDP (in purchasers' value)*	15.464.563	26.278.326				
	ANKARA	**1987**	**2000**	**gij**	**Kij**	**cij**	**Type**
1	*Agriculture*	446.133	387.415	263.106,54	-174.393,85	-147.430,68	4
2a	*Mining and Quarrying*	40.533	74.840	23.904,30	-19.299,68	29.702,38	3
2b	*Manufacturing*	848.575	1.229.425	500.446,34	121.433,78	-241.030,13	2
2c	*Electricity, Gas, Water*	83.589	237.631	49.296,54	82.447,66	22.297,80	1
3	*Construction*	1.085.305	1.035.520	640.057,65	-532.634,44	-157.208,21	4
4	*Trade*	1.506.610	2.559.281	888.521,89	304.366,97	-140.217,86	2
5	*Transportation and Communication*	1.021.068	1.581.580	602.173,93	222.515,24	-264.177,17	2
6	*Financial Institution*	174.123	161.508	102.688,88	-51.695,39	-63.608,50	4
7	*Ownership of Dwelling*	388.408	527.466	229.063,27	-116.967,25	26.961,98	3

8	***Business and Personal Services***	217.090	294.033	128.028,63	-8.967,58	-42.118,05	4
9	***(Less)Imputed Bank Service Charges***	104.984	87.440	61.914,22	-41.070,30	-38.387,92	4
10	***Government Services***	422.193	495.819	248.987,94	-117.916,04	-57.445,90	4
11	***Private Non-profit Institution***	192.202	275.613	113.350,96	-57.633,36	27.693,41	3
12	***Import Duties***	156.656	773.058	92.387,73	138.376,47	385.637,80	1
13	***GDP (in purchasers' value)***	6.477.501	9.545.749				
	İZMİR	**1987**	**2000**	**gij**	**Kij**	**cij**	**Type**
1	***Agriculture***	604.064	673.327	356.246,20	-236.129,24	-50.853,96	4
2a	***Mining and Quarrying***	20.862	35.516	12.303,35	-9.933,39	12.284,04	3
2b	***Manufacturing***	1.675.624	2.445.919	988.197,75	239.787,13	-457.689,87	2
2c	***Electricity, Gas, Water***	39.203	181.047	23.119,93	38.667,72	80.056,35	1
3	***Construction***	343.678	337.744	202.683,79	-168.666,63	-39.951,16	4
4	***Trade***	1.280.913	2.065.466	755.417,29	258.771,42	-229.635,71	2
5	***Transportation and Communication***	706.051	1.193.303	416.392,94	153.865,47	-83.006,41	2
6	***Financial Institution***	211.547	218.257	124.759,65	-62.806,20	-55.243,45	4
7	***Ownership of Dwelling***	290.234	431.141	171.165,24	-87.402,61	57.144,37	3
8	***Business and Personal Services***	168.880	235.484	99.596,83	-6.976,12	-26.016,71	4
9	***(Less)Imputed Bank Service Charges***	140.069	129.762	82.605,57	-54.795,74	-38.116,83	4
10	***Government Services***	226.421	302.780	133.531,58	-63.238,06	6.065,48	3
11	***Private Non-profit Institution***	1.586	1.655	935,34	-475,58	-390,77	4
12	***Import Duties***	368.324	1.024.255	217.218,75	325.345,81	113.366,44	1
13	***GDP (in purchasers' value)***	5.797.317	9.016.134				
	BURSA	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	***Agriculture***	459.191	487.006	270.807,48	-179.498,24	-63.494,24	4
2a	***Mining and Quarrying***	20.839	10.632	12.289,78	-9.922,44	-12.574,35	4
2b	***Manufacturing***	883.858	1.973.610	521.254,46	126.482,89	442.014,65	1
2c	***Electricity, Gas, Water***	23.505	128.380	13.862,05	23.184,06	67.828,89	1
3	***Construction***	161.446	208.285	95.212,63	-79.232,75	30.859,12	3
4	***Trade***	506.564	832.593	298.745,66	102.336,60	-75.053,27	2
5	***Transportation and Communication***	280.273	606.289	165.290,75	61.078,22	99.647,03	1
6	***Financial Institution***	76.405	79.149	45.059,78	-22.683,88	-19.631,90	4
7	***Ownership of Dwelling***	120.122	154.120	70.841,84	-36.174,18	-669,66	4
8	***Business and Personal Services***	48.441	90.840	28.568,04	-2.001,01	15.831,97	3
9	***(Less)Imputed Bank Service Charges***	38.024	35.369	22.424,62	-14.875,19	-10.204,43	4
10	***Government Services***	88.609	118.703	52.257,08	-24.747,98	2.584,90	3
11	***Private Non-profit Institution***	5.530	2.701	3.261,31	-1.658,22	-4.432,10	4
12	***Import Duties***	142.215	358.743	83.871,17	125.620,53	7.036,31	1
13	***GDP (in purchasers' value)***	2.778.974	5.015.684				
	ADANA	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	***Agriculture***	501.041	526.135	295.488,48	-195.857,45	-74.537,03	4
2a	***Mining and Quarrying***	8.344	18.031	4.920,87	-3.972,97	8.739,11	3
2b	***Manufacturing***	692.174	1.031.525	408.208,99	99.052,30	-167.910,30	2
2c	***Electricity, Gas, Water***	31.761	104.884	18.731,02	31.327,33	23.064,65	1
3	***Construction***	155.073	98.810	91.454,16	-76.105,08	-71.612,09	4
4	***Trade***	447.749	868.179	264.059,57	90.454,73	65.915,70	1
5	***Transportation and Communication***	385.199	403.301	227.170,76	83.944,11	-293.012,88	2
6	***Financial Institution***	76.284	77.175	44.988,42	-22.647,96	-21.449,46	4
7	***Ownership of Dwelling***	87.749	81.175	51.749,89	-26.425,20	-31.898,69	4
8	***Business and Personal Services***	53.053	64.861	31.287,96	-2.191,52	-17.288,44	4
9	***(Less)Imputed Bank Service Charges***	66.176	60.483	39.027,24	-25.888,40	-18.831,83	4

10	***Government Services***	127.276	136.592	75.060,91	-35.547,44	-30.197,46	4
11	***Private Non-profit Institution***	1.140	106	672,31	-341,84	-1.364,48	4
12	***Import Duties***	89.788	213.767	52.952,39	79.311,01	-8.284,41	2
13	***GDP (in purchasers' value)***	2.590.454	3.565.131				
	GAZİANTEP	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	***Agriculture***	230.424	215.656	135.892,35	-90.072,98	-60.587,37	4
2a	***Mining and Quarrying***	1.003	77	591,52	-477,58	-1.039,94	4
2b	***Manufacturing***	219.051	364.456	129.185,13	31.346,90	-15.127,03	2
2c	***Electricity, Gas, Water***	11.078	37.754	6.533,24	10.926,74	9.216,02	1
3	***Construction***	63.294	98.051	37.327,58	-31.062,76	28.492,18	3
4	***Trade***	342.694	542.562	202.103,48	69.231,41	-71.466,89	2
5	***Transportation and Communication***	113.270	175.481	66.800,88	24.684,25	-29.274,13	2
6	***Financial Institution***	27.630	30.530	16.294,77	-8.203,07	-5.191,70	4
7	***Ownership of Dwelling***	152.508	161.559	89.941,46	-45.927,07	-34.963,38	4
8	***Business and Personal Services***	23.393	31.083	13.796,00	-966,32	-5.139,68	4
9	***(Less)Imputed Bank Service Charges***	29.510	26.067	17.403,50	-11.544,47	-9.302,03	4
10	***Government Services***	49.695	60.421	29.307,58	-13.879,52	-4.702,06	4
11	***Private Non-profit Institution***	8.260	8.880	4.871,33	-2.476,83	-1.774,50	4
12	***Import Duties***	21.162	41.543	12.480,27	18.692,69	-10.791,97	2
13	***GDP (in purchasers' value)***	1.233.951	1.741.987				
	KONYA	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	***Agriculture***	739.180	568.198	435.930,74	-288.946,23	-317.966,51	4
2a	***Mining and Quarrying***	32.959	45.317	19.437,54	-15.693,34	8.613,80	3
2b	***Manufacturing***	310.883	435.694	183.342,97	44.488,35	-103.020,32	2
2c	***Electricity, Gas, Water***	18.855	22.278	11.119,72	18.597,55	-26.294,27	2
3	***Construction***	164.804	209.871	97.193,01	-80.880,75	28.754,74	3
4	***Trade***	308.559	470.466	181.972,39	62.335,42	-82.400,81	2
5	***Transportation and Communication***	237.459	486.011	140.041,23	51.748,02	56.762,75	1
6	***Financial Institution***	31.987	30.279	18.864,30	-9.496,62	-11.075,68	4
7	***Ownership of Dwelling***	109.418	132.370	64.529,17	-32.950,72	-8.626,45	4
8	***Business and Personal Services***	24.321	34.416	14.343,29	-1.004,65	-3.243,63	4
9	***(Less)Imputed Bank Service Charges***	22.903	20.029	13.507,02	-8.959,78	-7.421,25	4
10	***Government Services***	112.720	118.312	66.476,52	-31.482,04	-29.402,48	4
11	***Private Non-profit Institution***	2.914	3.025	1.718,53	-873,79	-733,74	4
12	***Import Duties***	30.696	85.344	18.102,94	27.114,21	9.430,85	1
13	***GDP (in purchasers' value)***	2.101.852	2.639.553				
	ANTALYA	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	***Agriculture***	428.299	560.783	252.588,95	-167.422,52	47.317,57	3
2a	***Mining and Quarrying***	749	3.571	441,72	-356,63	2.736,91	3
2b	***Manufacturing***	106.279	172.558	62.677,94	15.208,86	-11.607,81	2
2c	***Electricity, Gas, Water***	47.148	69.261	27.805,49	46.504,23	-52.196,72	2
3	***Construction***	157.845	211.602	93.088,95	-77.465,49	38.133,54	3
4	***Trade***	376.739	1.114.593	222.181,49	76.109,22	439.563,30	1
5	***Transportation and Communication***	225.346	470.734	132.897,60	49.108,30	63.382,09	1
6	***Financial Institution***	22.053	34.220	13.005,74	-6.547,32	5.708,58	3
7	***Ownership of Dwelling***	74.508	112.138	43.941,03	-22.437,74	16.126,71	3
8	***Business and Personal Services***	40.666	69.963	23.982,74	-1.679,84	6.994,10	3
9	***(Less)Imputed Bank Service Charges***	20.760	28.926	12.243,19	-8.121,42	4.044,23	3
10	***Government Services***	74.813	107.187	44.120,90	-20.894,83	9.147,93	3
11	***Private Non-profit Institution***	1.432	1.805	844,52	-429,40	-42,12	4

12	***Import Duties***	11.603	39.212	6.842,86	10.249,09	10.517,05	1
13	***GDP (in purchasers' value)***	1.546.719	2.938.699				
	DİYARBAKIR	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	***Agriculture***	186.132	319.260	109.771,18	-72.759,19	96.116,01	3
2a	***Mining and Quarrying***	138.019	56.571	81.396,58	-65.717,39	-97.127,19	4
2b	***Manufacturing***	47.008	52.365	27.722,93	6.726,99	-29.092,92	2
2c	***Electricity, Gas, Water***	87.301	139.239	51.485,69	86.108,98	-85.656,66	2
3	***Construction***	61.257	65.982	36.126,26	-30.063,06	-1.338,20	4
4	***Trade***	169.475	232.215	99.947,73	34.237,52	-71.445,25	2
5	***Transportation and Communication***	80.203	121.908	47.299,65	17.478,16	-23.072,81	2
6	***Financial Institution***	8.858	8.893	5.224,00	-2.629,85	-2.559,15	4
7	***Ownership of Dwelling***	43.866	48.226	25.869,93	-13.210,04	-8.299,89	4
8	***Business and Personal Services***	9.840	10.883	5.803,13	-406,47	-4.353,66	4
9	***(Less)Imputed Bank Service Charges***	7.143	6.440	4.212,58	-2.794,38	-2.121,20	4
10	***Government Services***	94.758	133.560	55.883,45	-26.465,36	9.383,91	3
11	***Private Non-profit Institution***	2.557	2.916	1.507,99	-766,74	-382,25	4
12	***Import Duties***	5.627	10.791	3.318,52	4.970,41	-3.124,93	2
13	***GDP (in purchasers' value)***	927.758	1.196.370				
	İÇEL	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	***Agriculture***	439.462	643.480	259.172,32	-171.786,15	116.631,83	3
2a	***Mining and Quarrying***	1.424	3.072	839,80	-678,03	1.486,23	3
2b	***Manufacturing***	577.038	691.210	340.307,64	82.575,97	-308.711,62	2
2c	***Electricity, Gas, Water***	17.104	32.861	10.087,07	16.870,46	-11.200,53	2
3	***Construction***	110.628	87.554	65.242,76	-54.292,83	-34.023,93	4
4	***Trade***	328.571	633.671	193.774,45	66.378,27	44.947,28	1
5	***Transportation and Communication***	193.628	412.699	114.191,94	42.196,19	62.682,87	1
6	***Financial Institution***	24.391	25.334	14.384,57	-7.241,45	-6.200,12	4
7	***Ownership of Dwelling***	114.913	158.141	67.769,84	-34.605,51	10.063,67	3
8	***Business and Personal Services***	48.514	70.230	28.611,09	-2.004,02	-4.891,07	4
9	***(Less)Imputed Bank Service Charges***	6.958	6.490	4.103,47	-2.722,01	-1.849,47	4
10	***Government Services***	66.824	101.465	39.409,39	-18.663,55	13.895,16	3
11	***Private Non-profit Institution***	7.016	12.109	4.137,68	-2.103,81	3.059,13	3
12	***Import Duties***	70.711	214.459	41.701,75	62.460,03	39.586,22	1
13	***GDP (in purchasers' value)***	1.993.265	3.079.797				
	MANİSA	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	***Agriculture***	661.154	832.470	389.914,98	-258.445,78	39.846,81	3
2a	***Mining and Quarrying***	78.760	92.007	46.448,64	-37.501,37	4.299,73	3
2b	***Manufacturing***	246.777	911.787	145.536,51	35.314,57	484.158,91	1
2c	***Electricity, Gas, Water***	98.973	186.210	58.369,24	97.621,61	-68.753,84	2
3	***Construction***	65.710	77.512	38.752,41	-32.248,45	5.298,04	3
4	***Trade***	307.091	611.035	181.106,64	62.038,85	60.798,51	1
5	***Transportation and Communication***	117.437	223.572	69.258,37	25.592,34	11.284,29	1
6	***Financial Institution***	28.691	25.742	16.920,49	-8.518,07	-11.351,42	4
7	***Ownership of Dwelling***	113.534	160.543	66.956,57	-34.190,23	14.242,66	3
8	***Business and Personal Services***	27.790	48.093	16.389,13	-1.147,95	5.061,83	3
9	***(Less)Imputed Bank Service Charges***	17.111	15.587	10.091,20	-6.693,91	-4.921,28	4
10	***Government Services***	52.561	67.406	30.997,80	-14.679,98	-1.472,82	4
11	***Private Non-profit Institution***	120	179	70,77	-35,98	24,21	3
12	***Import Duties***	26.731	52.179	15.764,58	23.611,87	-13.928,45	2
13	***GDP (in purchasers' value)***	1.808.217	3.273.149				

	KAYSERİ	1987	2000	gij	kij	cij	Type
1	*Agriculture*	133.140	148.407	78.519,20	-52.044,56	-11.207,63	4
2a	*Mining and Quarrying*	6.821	5.036	4.022,68	-3.247,80	-2.559,88	4
2b	*Manufacturing*	144.110	238.705	84.988,74	20.622,60	-11.016,34	2
2c	*Electricity, Gas, Water*	5.076	22.719	2.993,57	5.006,69	9.642,74	1
3	*Construction*	83.920	145.524	49.491,74	-41.185,36	53.297,62	3
4	*Trade*	261.494	374.011	154.215,85	52.827,30	-94.526,15	2
5	*Transportation and Communication*	109.563	171.247	64.614,68	23.876,41	-26.807,09	2
6	*Financial Institution*	15.521	15.071	9.153,50	-4.608,03	-4.995,47	4
7	*Ownership of Dwelling*	42.454	56.585	25.037,21	-12.784,82	1.878,62	3
8	*Business and Personal Services*	17.379	23.521	10.249,25	-717,89	-3.389,36	4
9	*(Less)Imputed Bank Service Charges*	9.784	7.571	5.770,11	-3.827,55	-4.155,55	4
10	*Government Services*	81.702	102.769	48.183,68	-22.818,89	-4.297,79	4
11	*Private Non-profit Institution*	3.395	3.670	2.002,20	-1.018,02	-709,18	4
12	*Import Duties*	20.181	74.271	11.901,73	17.826,16	24.362,11	1
13	*GDP (in purchasers' value)*	914.972	1.373.965				
	KOCAELİ	**1987**	**2000**	**gij**	**kij**	**cij**	**Type**
1	*Agriculture*	81.449	122.468	48.034,47	-31.838,50	24.823,02	3
2a	*Mining and Quarrying*	67	11.217	39,51	-31,90	11.142,39	3
2b	*Manufacturing*	1.917.852	2.561.187	1.131.051,49	274.450,73	-762.167,22	2
2c	*Electricity, Gas, Water*	10.553	86.219	6.223,62	10.408,91	59.033,47	1
3	*Construction*	112.246	171.940	66.196,98	-55.086,90	48.583,92	3
4	*Trade*	323.349	507.579	190.694,78	65.323,31	-71.788,09	2
5	*Transportation and Communication*	199.306	438.967	117.540,53	43.433,56	78.686,90	1
6	*Financial Institution*	63.583	71.256	37.498,02	-18.877,16	-10.947,86	4
7	*Ownership of Dwelling*	91.294	131.398	53.840,55	-27.492,76	13.756,21	3
8	*Business and Personal Services*	23.856	36.680	14.069,05	-985,45	-259,61	4
9	*(Less)Imputed Bank Service Charges*	72.976	55.389	43.037,53	-28.548,60	-32.075,93	4
10	*Government Services*	98.748	153.192	58.236,54	-27.579,74	23.787,20	3
11	*Private Non-profit Institution*	295	537	173,98	-88,46	156,48	3
12	*Import Duties*	485.549	986.529	286.352,09	428.892,32	-214.264,40	2
13	*GDP (in purchasers' value)*	3.335.170	5.223.778				

Source: Compiled and calculated from SIS, 2000

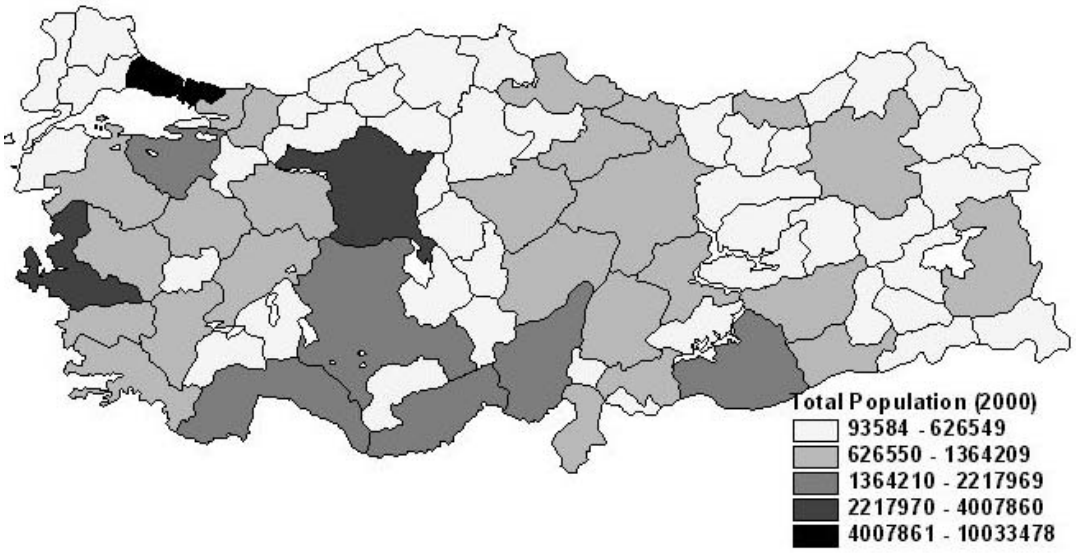
(*) National rate of change in the sectors regularly: 0,20; 0,11; 0,73; 1,58; 0,10; 0,79; 0,81; 0,29; 0,29; 0,55; 0,20; 0,31; 0,29; 1,47; 0,59 and national growth rate for 1987-00 is 0,59

gij: Regional share related with national growth; **kij**: Industrial mix component growth; **cij**: Competitive growth component (Total regional shift)

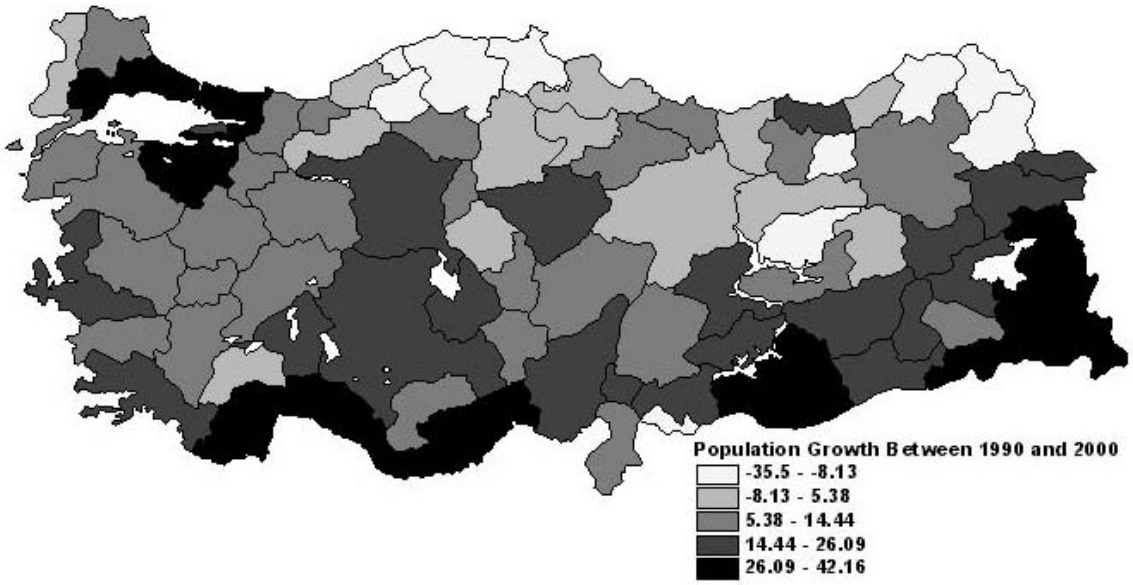
Types: 1- Growth Pole (GP); 2-Downward Transitional Area (DTA); 3-Upward Transitional Area (UTA); 4-Fall Area (FA)

Fig. 5.5. The analyses on the provinces of Turkey according to the population changes

TOTAL POPULATION BY THE YEAR 2000



THE POPULATION GROWTH BETWEEN 1990 AND 2000



THE POPULATION GROWTH COMPARED TO THE COUNTRY (1990-2000)

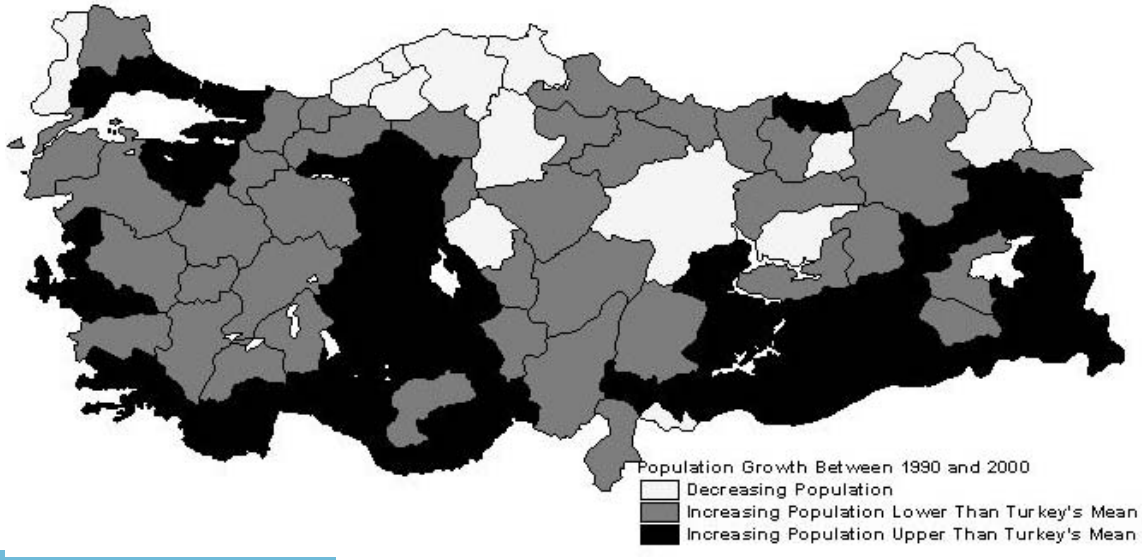
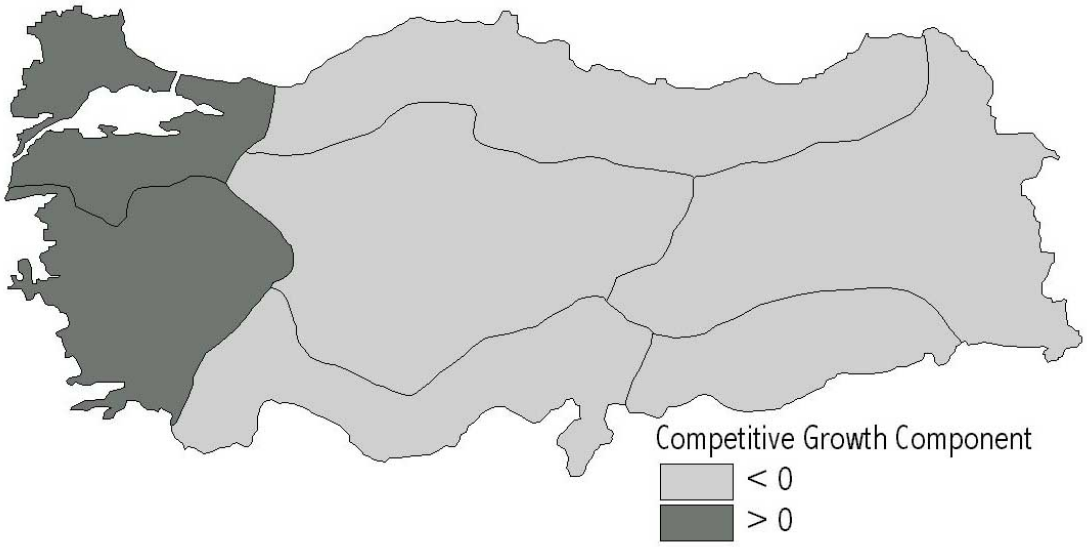
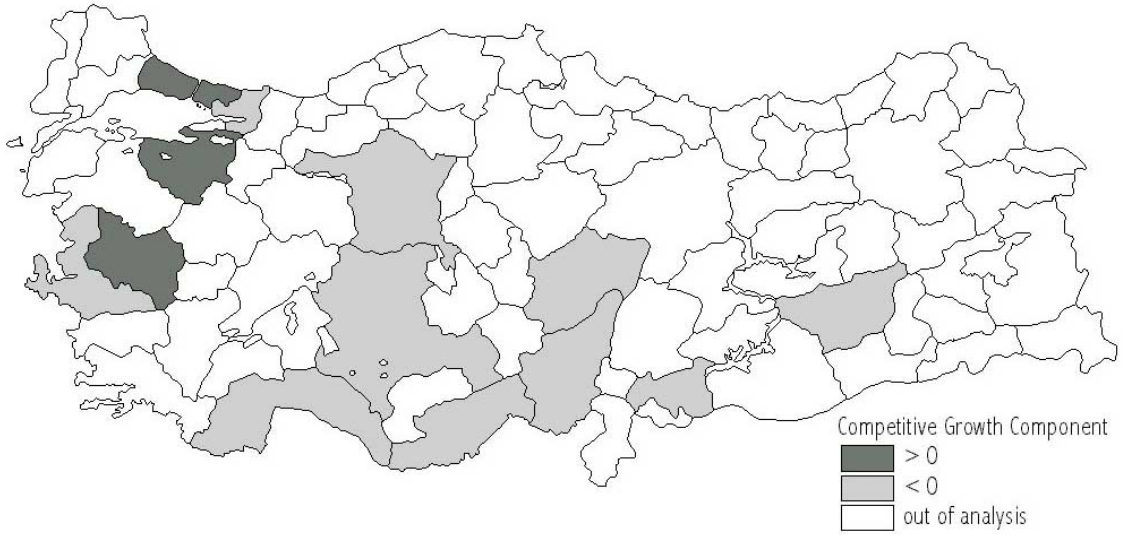


Fig. 5.6. The shift share analyses on the geographic regions & the provinces of Turkey according to GDP values (1987-2000)

COMPETITIVE GROWTH COMPONENT
IN MANUFACTURING INDUSTRY BY REGIONS



COMPETITIVE GROWTH COMPONENT
IN MANUFACTURING INDUSTRY BY MAJOR PROVINCES



5.5. Industrial Development Before 1980 In Relation To Urban Priorities

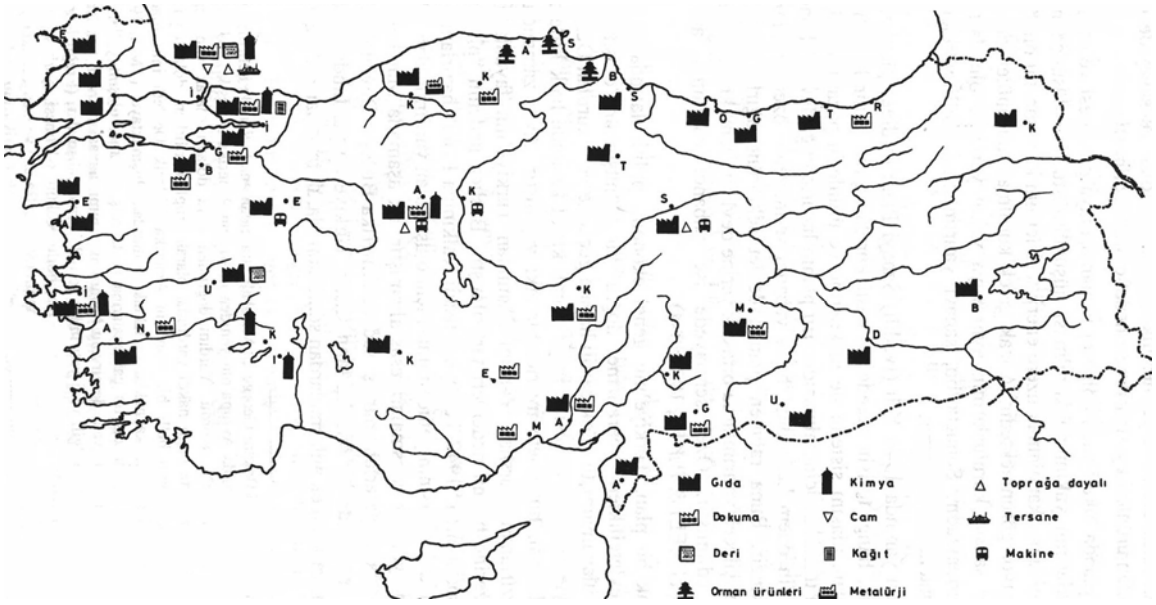
In this section, urban priorities, which were appeared by industrial development before 1980, are defined to be a background for the analyses of the period after 1980. Here, the movement point is the Eraydın's (1992) assertion "*spatial priorities*". By this way, the regions are described that requires for following analyses.

According to Eraydın, different spatial units of Turkey appeared in the 1980's. Industrial development and structural transformation (changes in the technology of production, the organization of production, and the distribution of the labour and its utilization in production processes) created new *spatial priorities*, which depend on the changes of the possibilities that cities and regions presented. These priorities can be defined as the processes that '*agglomeration in existing industrial centers*', '*diffusion from core to periphery*', and '*appearance of new focuses*'. In the diffusion processes, productivity and economic growth have gotten much importance. (Eraydın, 1992: 128)

Before analyzing the post-1980 era, it may be useful to define pre-1980 period including the spatial distribution of manufacturing industry.

After first industrial development of Turkey in 1930s, the industrial investments in 1940s were generally ceased, and agricultural products significantly increased. On the other hand, existing industrial firms intensified at certain regions, especially in Marmara and Aegean regions. They are taken attention because of manufacturing agglomeration which based on industries of textile, agricultural products and raw materials. (Avcı, 2000)

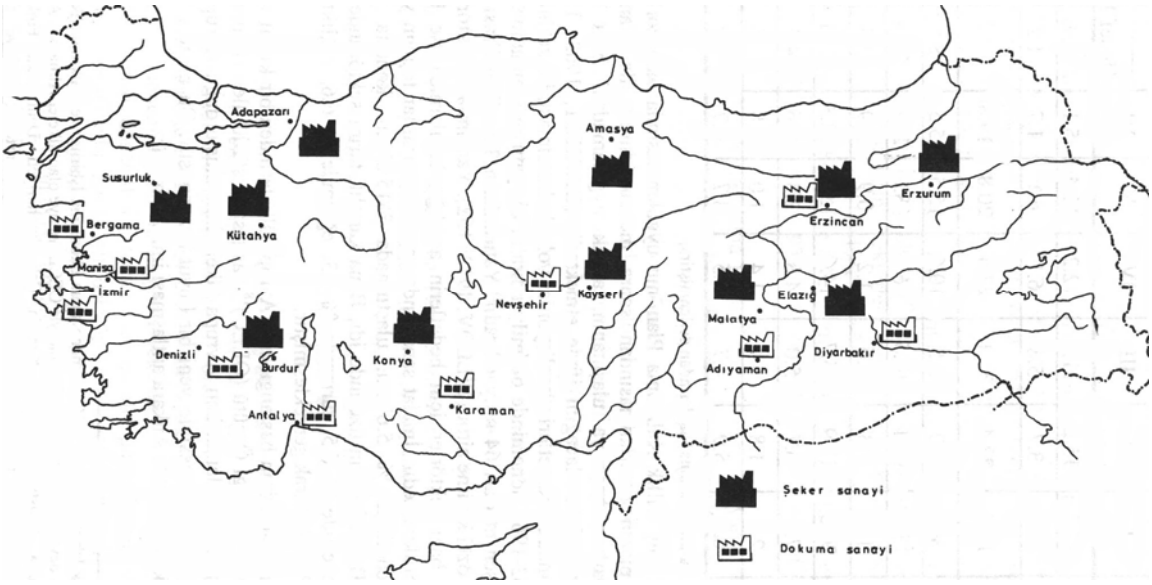
Fig. 5.7. The distribution of industrial establishments in Turkey, 1940s



Source: Avcı, 2000: 39

During 1950s, magnificent industrial investments were made by public sector. It may be seen that governmental investments were concentrated on particularly two sectors: food (especially sugar), and textile (woven) industries (Avcı, 2000: 44). These industries were distributed both developed and less developed areas in Turkey to decrease the spatial disparities among regions.

Fig. 5.8. The distribution of public industrial establishments in Turkey, 1950s



Source: Avcı, 2000: 45

Turkey was exposed rapid growth in manufacturing industry in 1960s. When arriving the years of 1970s, two basic points in relation to industrial development appeared. These are (Eraydın, 1992: 129):

- Industrial investments tended to locate outside the big centers.
- Even though the investments moved outside the centers/cores, they located surroundings of major metropolises and regional centers.

A development model, which is defined as escaping from the increasing costs of metropolises and concentrating periphery points, may be labeled as *an investment model that improves at individual base; do not go away agglomeration economies; and takes on shape due to the firms those integrating gradually*.

In 1980s, these tendencies were broken. Industrial investments returned to metropolises, and even some local production areas emerged. Thus, 1980s is a period in which both the investment character and firm behaviors changed.

Industrial data before 'Great Depression' show that the employment share increased rapidly (8.19 percent between 1971 and 1974). The fastest increase was made in Trakya and Central Anatolia Region. Between 1974 and 1979, when the crisis intensified, the

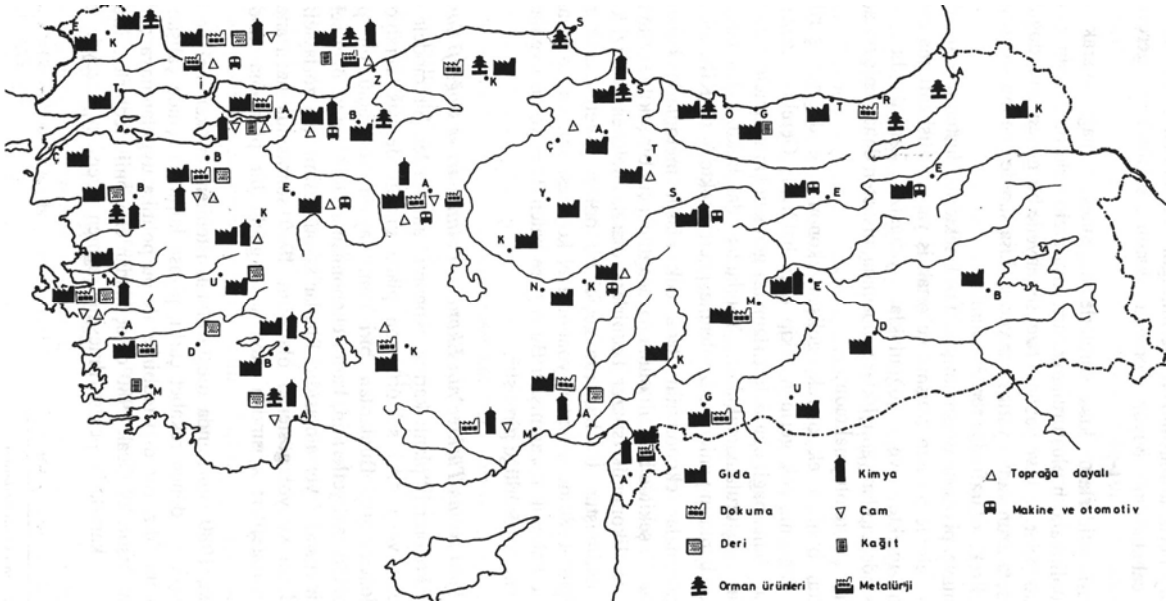
employment share decreased 3.73 percent. Interestingly, the rates of less-developed regions were higher than the developed regions. Between 1971 and 1982, it is seen that the provinces where located at the east side of the country could not increase their employment rates, and the growths were intensified in some groups where located in different regions. Between 1979 and 1982, the employment share in industry decreased 1.85 percent. Meanwhile, the total industry workers decreased (see Table 5.29. and Fig.5.7).

Table 5.29. Annual growth rate of employment in manufacturing industry, 1971-82 (included the workplaces which employed at least 10 people)

PROVINCE	1971-1974	1974-1979	1979-1982	PROVINCE	1971-1974	1974-1979	1979-1982
Adana	14,06	4,05	-0,07	**Izmir**	8,37	1,25	-5,93
Adıyaman	2,26	4,9	5,1	**Kars**	-	31,41	-9,04
Afyon	-5,62	8,06	36,05	**Kastamonu**	4,34	7,47	11,88
Ağrı	-	-	-4,92	**Kayseri**	11,69	6,1	-0,5
Amasya	10,14	1,68	0,96	**Kırklareli**	16,05	3,2	11,73
Ankara	7,71	1,88	2,03	**Kırşehir**	-12,33	17,77	19,59
Antalya	-3,17	10,8	-0,07	**Kocaeli**	9,03	7,96	2,58
Artvin	0	4,08	-5,19	**Konya**	31,82	3,67	2,24
Aydın	4,94	0,39	4,51	**Kütahya**	3,89	-1,02	5,53
Balıkesir	4,63	5,99	0,1	**Malatya**	3,32	5,98	0,37
Bilecik	7,7	17,46	19,51	**Manisa**	11,82	2,21	10,41
Bitlis	-10,05	17,91	-20,33	**K.Maraş**	3,84	11,93	-0,41
Bolu	6,29	12,46	5,96	**Mardin**	-	-	23,47
Burdur	2,54	13,7	6,44	**Muğla**	143,78	4,27	1,94
Bursa	16,61	3,65	3,5	**Muş**	0	13,62	4,77
Çanakkale	78,4	1,33	7,04	**Nevşehir**	-1,6	12,1	5,25
Çankırı	50,28	-3,72	-15,69	**Niğde**	27,51	14,07	0,64
Çorum	6,67	12,04	-1,42	**Ordu**	-3,25	5,78	0,79
Denizli	3,37	12,81	6,01	**Rize**	-2,86	4,49	-4,59
Diyarbakır	2,82	7,33	-4,45	**Sakarya**	20,34	5,21	-1,7
Edirne	19,15	34,81	8,05	**Samsun**	12	9,35	-0,82
Elazığ	6,66	1,2	-4,27	**Siirt**	-50,86	54,78	1,01
Erzincan	4,76	1,96	7,26	**Sinop**	4,17	10,01	7,89
Erzurum	5,32	2,82	-4,52	**Sivas**	0,55	0,4	-4,53
Eskişehir	6,72	1,86	-2,11	**Tekirdağ**	35,57	-32,85	6,26
Gaziantep	4,23	5,99	12,26	**Tokat**	11,68	5,36	2,65
Giresun	17,94	3,94	2,14	**Trabzon**	8,87	3,19	-4,84
Gümüşhane	-	-	-7,17	**Urfa**	9,15	5,12	17,49
Hakkari	-	-	34,2	**Uşak**	5,86	2,68	2,08
Hatay	12,3	42,11	3,24	**Van**	18,93	-3,1	6,21
Isparta	20,42	11,06	4,73	**Yozgat**	80,83	-3,3	25,4
Içel	17,67	2,73	2,41	**Zonduldak**	4,78	3,32	-5,29
Istanbul	6,91	0,69	2,82	**TURKEY**	8,19	3,73	1,85

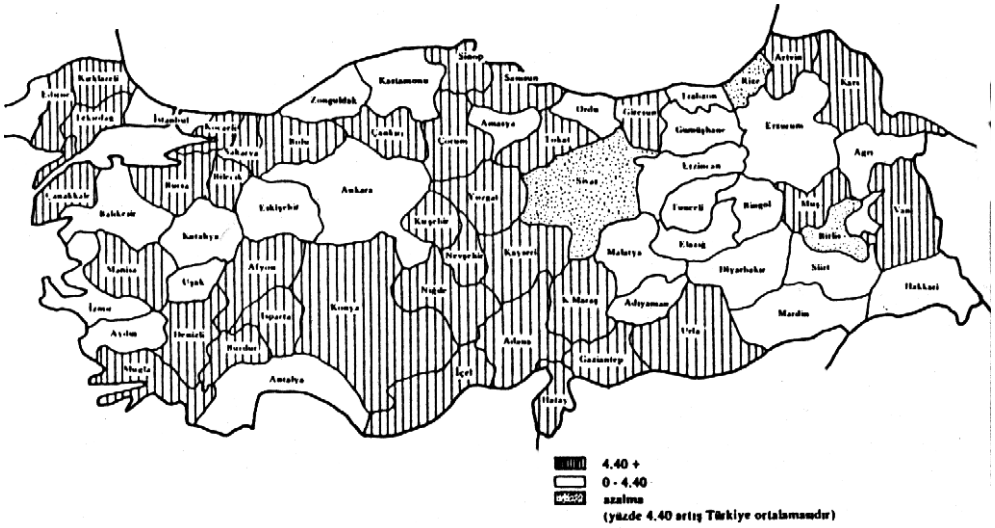
Source: Eraydın, 1992: 130

Fig. 5.9. The distribution of industrial establishments in Turkey, 1970s



Source: Avcı, 2000: 51

Fig. 5.10. Annual employment increase in manufacturing industry, 1981-82 (%)



Source: Eraydın, 1992: 131

Basic findings in relation to the spatial distribution of industry in 1970s are below:

- The growths of Tekirdağ, Bursa, and Kocaeli in 1970s may be evaluated in scope of industrial development in İstanbul and its diffusion processes.
- The growth tendency of İstanbul turned towards east, and diffused to Sakarya and Kocaeli in 1970s.
- In 1970s, Organized Industrial Districts also affected positively the industrial growth in Marmara Region. In the following years, local/domestic capital integrated to these investments.

- The locational and special dynamics of Bursa regularly improved since 1960s. It has become one of the fastest growing industrial centers.
- In 1970s, the Metropolitan Area of İzmir started to diffuse through Manisa.
- Denizli achieved a significant leap by means of the local capitals and small-scale industry skills in depression years. From this respect, it is resembled to the development of flexible production centers in the world.
- Rapid industrialization was made in a group of provinces including Afyon, Isparta, Burdur, and Muğla.
- The third group that has rapid industrialization, following İstanbul region and İzmir region, is Ankara region including Yozgat, Çankırı, Çorum, Niğde, Nevşehir and Kırşehir [perhaps one add, K.Maraş].

5.6. Evaluation of Regional Industrial Development After 1980

It is obvious that industry was agglomerated in certain regions In 1970s. At this point, it is necessary to make the study fit on a region-based ground for both following the regional economies that have been frequently expressed in flexible production literature, and understanding the transformation in regional agglomerations after 1980 in Turkey. In this section, the regional boundaries are described, and then transformation of industry after 1980 is analyzed used by different variables. Finally, the differences at regional scale that have been appeared in relation to Turkey's adaptation processes to flexible accumulation are analyzed.

There are not updated region boundaries in hand due to the lack of effective politics of regional planning. Here, it seems to be the most reliable option to lean on the study including some descriptions about regions that were prepared before. We follow the same traces.

Eraydın (1992) determines four regions to industrial analyses. These regions that also used in this study are below:

İstanbul Region; includes the provinces of İstanbul, Kocaeli, Bursa, Sakarya, Tekirdağ and Yalova.

İzmir Region: includes the provinces of İzmir, Manisa, Aydın and Denizli.

Adana Region: includes the provinces of Adana, Hatay, İçel and Osmaniye.

Ankara Region: includes the provinces of Ankara and Kırıkkale.

Region Centers: formed by the provinces of Kayseri, Samsun, Konya, Eskişehir and Gaziantep. This group is the expression of certain points of industrial agglomeration more than a characterization of a region.

The progress of some indicators after 1980 in respect to the regions is analyzed in following sections.

5.6.1. The Distribution of Industrial Firms

By the year of 1980, 5 percent of 8707 manufacturing industry located belonged to public sector in Turkey. In 1990, the number of the firms increased to 8871, the share of public sector did not change too much. In that period, there was a little increase in the number of the firms in the country (see Table 5.30).

In 1980, 54 percent of overall firms in the country were located in İstanbul Region, which clearly shows the heaviness of the region. By the same year, 14 percent of the firms were located in İzmir Region, 6.5 percent in Ankara Region, and 4 percent in Adana Region. The dimensions of spatial disparities may be seen evidently by the way that only 15 percent of total firms were located outside of the agglomeration centers in 1980. Although the little decrease in the share of Ankara was reflected to the other provinces group positively, uneven situation did not close by the year of 1990.

During the period between 1980 and 1990, although public investments increased 0.49 percent, the governmental shares decreased in İstanbul (-16.67), İzmir (-11.54) and Adana (-21.5) regions. In addition, the public investments completely paused in Ankara Region. It may be said that limited public investments in 1980s were moved from the metropolitan regions to Region Centers. However, this governmental intervention was inadequate to solve uneven distribution of manufacturing industry. On the other hand, the growth in the country was generally carried by private sector.

By the year of 1999, the share of public sector decreased to 2.5 percent. This situation reflected to all regions and the share of public sector decreased in every group. It attracts attention that, between 1990 and 1999 although public investments decreased about 30 percent, general investments increased about 27 percent. This means, in 1990s the public resigned from manufacturing industry, thoroughly and the growth was turned/revolved to private sector.

Table 5.30. The changes in number of firms by regions 1980,1990, and 1999

Regions	Sector (*)	1980		1990		Growth (1980-90) (%)	1999		Growth (1990-99) (%)
		Number of Firms	%	Number of Firms	%		Number of Firms	%	
İSTANBUL REGION	A	4.672	53,66	4.678	52,73	0,13	5.372	47,70	14,84
	B	66	0,76	55	0,62	-16,67	41	0,36	-25,45
	C	4.606	52,90	4.623	52,11	0,37	5.331	47,34	15,31
İZMİR REGION	A	1.217	13,98	1.237	13,94	1,64	1.651	14,66	33,47
	B	26	0,30	23	0,26	-11,54	19	0,17	-17,39
	C	1.191	13,68	1.214	13,69	1,93	1.632	14,49	34,43
ADANA REGION	A	340	3,90	320	3,61	-5,88	492	4,37	53,75
	B	19	0,22	15	0,17	-21,05	10	0,09	-33,33
	C	321	3,69	305	3,44	-4,98	482	4,28	58,03
ANKARA REGION	A	560	6,43	521	5,87	-6,96	897	7,97	72,17
	B	40	0,46	40	0,45	0,00	34	0,30	-15,00
	C	520	5,97	481	5,42	-7,50	863	7,66	79,42
REGION CENTERS	A	607	6,97	608	6,85	0,16	981	8,71	61,35
	B	37	0,42	38	0,43	2,70	29	0,26	-23,68
	C	570	6,55	570	6,43	0,00	952	8,45	67,02
OTHERS	A	1.311	15,06	1.507	16,99	14,95	1.868	16,59	23,95
	B	220	2,53	239	2,69	8,64	156	1,39	-34,73
	C	1.091	12,53	1.268	14,29	16,22	1.712	15,20	35,02
TURKEY	A	8.707	100,00	8.871	100,00	1,88	11.261	100,00	26,94
	B	408	4,69	410	4,62	0,49	289	2,57	-29,51
	C	8.299	95,31	8.461	95,38	1,95	10.972	97,43	29,68

Source: Compiled and calculated from SIS, 2000 (*) A: Total; B: Public Sector; C: Private Sector

Between 1990 and 1999, the increase of the total firm numbers, 72 percent in Ankara Region, 54 percent in Adana Region, 34 percent in İzmir Region, 15 percent in İstanbul Region, and 61 percent in Region centers, is noticeable. During the same period, the growth reached to 24 percent in other provinces. As mentioned above, this growth has been acquired in spite of the regression in public sector. This shows that private sector has played the foremost role in the national market in 1990s. However, this progress has not solved the regional disparities in spite of the little decrease in İstanbul Region.

5.6.2. The Changes in Employment

By the year of 1980, the employment in manufacturing industry was about 787000 persons in Turkey. 37 percent of this number was employed in public sector. Parallel to the investments shares, agglomeration regions played foremost role by workforce distribution. When the distribution of the labours and the number of the firms are compared, it is seen that İstanbul and İzmir regions maintained their superiority. On the other hand, it may be

noteworthy that Adana Region and Region Centers had much employment values comparing to the firm numbers (see Table 5.31).

By the year of 1990, there is not a noticeable change in distribution of labours. The most remarkable change of the period between 1980 and1990 was made in public sector. In this period, the employment of public sector decreased 13 percent. Despite this decrease, total number of labours increased 30 percent due to the effort of the private sector. The growth rate of private sector came close to 55 percent.

It is noticeable that, between 1980 and 1990, while all the regions were being affected from the regression of the workforce in public sector, 7.63 percent increase were made in Adana Region. Furthermore, Adana Region had the lowest growth tendency among all the regions.

Table 5.31. The changes in employment by regions 1980,1990, and 1999

Regions	Sector (*)	1980		1990		Growth (1980-90) (%)	1999		Growth (1990-99) (%)
		Employ-ment	%	Employ-ment	%		Employ-ment	%	
İSTANBUL REGION	A	339.427	43,13	472.726	46,18	39,27	526.411	47,33	11,36
	B	55.763	7,09	39.384	3,85	-29,37	19.721	1,77	-49,93
	C	283.664	36,04	433.342	42,33	52,77	506.690	45,56	16,93
İZMİR REGION	A	96.900	12,31	134.881	13,18	39,20	156.264	14,05	15,85
	B	27.126	3,45	25.370	2,48	-6,47	14.230	1,28	-43,91
	C	69.774	8,87	109.511	10,70	56,95	142.034	12,77	29,70
ADANA REGION	A	71.213	9,05	75.816	7,41	6,46	60.779	5,46	-19,83
	B	22.763	2,89	24.500	2,39	7,63	11.177	1,00	-54,38
	C	48.450	6,16	51.316	5,01	5,92	49.602	4,46	-3,34
ANKARA REGION	A	41.179	5,23	52.181	5,10	26,72	65.188	5,86	24,93
	B	23.588	3,00	21.087	2,06	-10,60	13.501	1,21	-35,97
	C	17.591	2,24	31.094	3,04	76,76	51.687	4,65	66,23
REGION CENTERS	A	73.452	9,33	82.352	8,04	12,12	94.695	8,51	14,99
	B	44.498	5,65	33.058	3,23	-25,71	16.056	1,44	-51,43
	C	28.954	3,68	49.294	4,82	70,25	78.639	7,07	59,53
OTHERS	A	159.471	20,26	198.655	19,41	24,57	208.127	18,71	4,77
	B	113.451	14,42	106.363	10,39	-6,25	59.013	5,31	-44,52
	C	50.837	6,46	98.493	9,62	93,74	149.457	13,44	51,74
TURKEY	A	786.995	100,00	1.023.669	100,00	30,07	1.112.228	100,00	8,65
	B	287.189	36,49	249.762	24,40	-13,03	133.698	12,02	-46,47
	C	499.806	63,51	773.907	75,60	54,84	978.530	87,98	26,44

Source: Compiled and calculated from SIS, 2000 (*) A: Total; B: Public Sector; C: Private Sector

Employment values by the year of 1999 show that İstanbul Region is again the evident attraction center. Among the regions, the decrease of attraction features in Adana Region and the decrease of the share of workforce in the provinces that are outside of the agglomeration centers are also important. In other words, in this period, the hegemony of

İstanbul and regional disparities are highlighted again. Another indicator supporting this assertion is the changes in growth rates between 1990 and 1999. The remarkable widening occurred in İstanbul, İzmir and Ankara regions (between 11 percent and 25 percent) in spite of the decrease of public employment. While a big bottleneck occurred in Adana Region (20 percent in total, 55 percent in public sector), a little widening (4.7 percent) is made in the group of other provinces.

5.6.3. The Changes in Value-Added:

In the country, about 40 percent of total value-added was produced by public sector by the year of 1980. Parallel to the distribution of investments and employment, İstanbul Region played foremost role. On the other hand, it may be noticeable that about 12 percent of total value-added was produced by public sector in İstanbul. This kind of high rate (10,3 percent) can be seen in the provinces that are placed outside of the agglomeration centers. These values may be evaluated as a result of a strategy oriented to the spread of public investments to different regions (see Table 5.32).

Table 5.32. The changes in value-added by regions 1980,1990 and 1999 (*)

Regions	Sector (**)	Value-Added 1980 (million)	1980 (%)	Value-Added 1990 (million)	1990 (%)	Growth (1980-90) (%)	Value-Added 1999 (million)	1999 (%)	Growth (1990-99) (%)
İSTANBUL REGION	A	394.753	48,15	969.025	51,04	145,48	1.023.753	49,46	5,65
	B	97.884	11,94	173.085	9,12	76,83	130.492	6,30	-24,61
	C	296.869	36,21	795.940	41,93	168,11	893.261	43,16	12,23
İZMİR REGION	A	105.896	12,92	309.011	16,28	191,81	335.378	16,20	8,53
	B	41.996	5,12	134.658	7,09	220,64	130.144	6,29	-3,35
	C	63.900	7,79	174.352	9,18	172,85	205.234	9,92	17,71
ADANA REGION	A	108.767	13,27	166.700	8,78	53,26	175.685	8,49	5,39
	B	55.337	6,75	78.871	4,15	42,53	28.661	1,38	-63,66
	C	53.430	6,52	87.829	4,63	64,38	147.025	7,10	67,40
ANKARA REGION	A	30.975	3,78	90.790	4,78	193,11	159.595	7,71	75,79
	B	19.149	2,34	48.153	2,54	151,46	74.745	3,61	55,22
	C	11.826	1,44	42.637	2,25	260,53	84.850	4,10	99,01
REGION CENTERS	A	54.091	6,60	90.883	4,79	68,02	103.465	5,00	13,84
	B	33.087	4,04	34.695	1,83	4,86	14.042	0,68	-59,53
	C	21.004	2,56	56.188	2,96	167,51	89.423	4,32	59,15
OTHERS	A	121.081	14,77	260.663	13,73	115,28	271.189	13,10	4,04
	B	84.915	10,36	124.300	6,55	46,38	76.310	3,69	-38,61
	C	39.902	4,87	146.043	7,69	266,00	195.072	9,43	33,57
TURKEY	A	819.906	100,00	1.898.474	100,00	131,55	2.069.668	100,00	9,02
	B	332.368	40,54	593.763	31,28	78,65	454.394	21,95	-23,47
	C	487.538	59,46	1.304.711	68,72	167,61	1.615.274	78,05	23,80

Source: Compiled and calculated from SIS,
(*) All values fixed by 1980 prices. (**) A: Total; B: Public Sector; C: Private Sector

In the period between1990 and 1999, a progress has been parallel to the two former indicators mentioned above. While İstanbul Region has gone on the leader position as being the most powerful production center, Ankara and İzmir regions have relatively widened. On the other hand, the share of produced value-added in Adana Region, Region Centers and the other provinces decreased. It is noticeable while the share of public sector has generally decreased; little increases have been made in İzmir and Ankara regions. This affected the total produced value-added positively.

On the other hand, between 1980 and 1990, the growth rates of value-added reached relatively high values compared with the investment rates. It may be said that the participation of the enterprises, which established before 1980, to production caused this situation. Furthermore, though produced value-added of manufacturing industry in Turkey increased about 132 percent between 1980 and 1990, it increased only 9 percent between 1990 and 1999. This has reflected to all regions, the growth rates reached to incredible numbers in first half of the last two decades, they, however, decreased too much in second half.

5.6.4. The Changes in Produced Value-Added per Worker:

The values of produced value-added per worker, which has evidently affected on the productivity, have showed changeable structure after 1980. By the year of 1980, it is noteworthy that though Region Centers, Ankara Region and the other provinces had low values, Adana Region had relatively high values (see Table 5.33).

In 1990, even though the values generally increased, the growths in Adana Region, Region Centers and the other provinces remained below Turkey's mean. The most noteworthy growth occurred in İzmir and Ankara regions. By the year of 1990, a recession was seen in whole country. Each group except Adana and Ankara regions were affected by this recession.

Between 1990 and 1999, the rates of produced value-added per worker have decreased in İstanbul and İzmir regions, Region Centers and the other provinces group. It may be said that this decrease has been caused because of the inefficiency of private sector. During same period, Ankara Region has reached to relatively high values on the contrary the other groups.

Table 5.33. The changes in produced value-added per worker by regions, 1980, 1990 and 1999 (*)

Regions	Sector (**)	V.A. Per Worker 1980	V.A. Per Worker 1990	Growth (1980-90) (%)	V.A. Per Worker 1999	Growth (1990-99) (%)
İSTANBUL REGION	A	1.162.998	2.049.866	76,26	1.944.778	-5,13
	B	1.755.357	4.394.816	150,37	6.616.913	50,56
	C	1.046.552	1.836.747	75,50	1.762.933	-4,02
İZMİR REGION	A	1.092.838	2.290.986	109,64	2.146.226	-6,32
	B	1.548.183	5.307.768	242,84	9.145.716	72,31
	C	915.814	1.592.100	73,85	1.444.966	-9,24
ADANA REGION	A	1.527.348	2.198.749	43,96	2.890.560	31,46
	B	2.431.006	3.219.238	32,42	2.564.264	-20,35
	C	1.102.786	1.711.533	55,20	2.964.085	73,18
ANKARA REGION	A	752.204	1.739.896	131,31	2.448.234	40,71
	B	811.811	2.283.537	181,29	5.536.275	142,44
	C	672.276	1.371.215	103,97	1.641.616	19,72
REGION CENTERS	A	736.413	1.103.587	49,86	1.092.612	-0,99
	B	743.562	1.049.522	41,15	874.535	-16,67
	C	725.427	1.139.845	57,13	1.137.138	-0,24
OTHERS	A	759.267	1.312.137	72,82	1.302.999	-0,70
	B	748.473	1.168.637	56,14	1.293.110	10,65
	C	784.901	1.482.778	88,91	1.305.203	-11,98
TURKEY	A	1.041.819	1.854.578	78,01	1.860.830	0,34
	B	1.157.315	2.377.314	105,42	3.398.656	42,96
	C	975.454	1.685.876	72,83	1.650.715	-2,09

Source: Compiled and calculated from SIS,
(*) All values fixed by 1980 prices. (**) A: Total; B: Public Sector; C: Private Sector

The most remarkable result of the indicators can be seen in public sector. A clear widening has existed in the produced value-added per worker of public sector, although there have had rapid decreases in the values of investments, number of labours, and produced value-added (except Adana Region and Region Centers). It is obvious that this has a close relation with the recession politics of governments. In addition, the invalidity of "*idle public worker*" assertion that expressed frequently in privatization programs may be asserted. Furthermore, even though there was an evident recession in private sector (2.09 percent in Turkey, 4.02 percent in İstanbul Region, 9.24 percent in İzmir Region), the number of public workers increased (43 percent in average, 143 percent in Ankara region).

5.6.5. The Changes in Labour Wages:

By the year of 1980, labour wages were below Turkey's mean in İstanbul, İzmir, Adana regions and Region Centers. In 1990, they were below Turkey's mean only in İzmir Region and Region Centers. When arriving the year of 1999, all groups except Region

Centers were above Turkey's mean. The progress of the wages since 1980 may be evaluated as a balancing process (see Table 5.34).

Since 1980, the labour wages of public sector have been generally higher than the wages of private sector. Moreover, the difference between two sectors evidently increased in 1990s. Between 1980 and 1990, the acceleration in the national economy that was gained by foreign trade improvement reflected to the wages. In 1990s, the wages, whereas, considerably decreased. Between 1990 and 1999, although the wages increased about 27 percent in public sector, Turkey's mean decreased about 4 percent.

According to the wage levels, although the relatively high wages were made in Ankara Region and the other provinces in 1980, Adana and Ankara regions went to the fore in 1990. By this year, the other provinces group protected Turkey's mean. This situation can be again seen in 1999. İstanbul Region has had parallel movement with Turkey's mean since 1980. Even though the wages have been generally low in Region Centers and İzmir Region, the public sector wages reached twice Turkey's average).

Table 5.34. The changes in labour wages by regions, 1980, 1990, and 1999 (*)

Regions	Sector (**)	Wage per worker (1980)	Wage per worker (1990)	Growth (1980-90) (%)	Wage per worker (1999)	Growth (1990-99) (%)	Variation of Wages		
							1980	1990	1999
İSTANBUL REGION	A	319.621	406.941	27,32	394.409	-3,08	0,99	1,01	1,02
	B	420.225	540.909	28,72	613.705	13,46	1,30	1,34	1,58
	C	299.844	394.766	31,66	385.874	-2,25	0,93	0,98	0,99
İZMİR REGION	A	275.521	354.382	28,62	343.580	-3,05	0,85	0,88	0,88
	B	321.168	539.552	68	808.043	49,76	0,99	1,33	2,08
	C	257.775	311.484	20,84	297.047	-4,63	0,80	0,77	0,76
ADANA REGION	A	320.672	474.191	47,87	495.025	4,39	0,99	1,17	1,27
	B	413.390	576.822	39,53	701.941	21,69	1,28	1,43	1,81
	C	277.110	425.191	53,44	448.399	5,46	0,86	1,05	1,15
ANKARA REGION	A	389.980	472.767	21,23	445.397	-5,79	1,20	1,17	1,15
	B	520.943	550.395	5,65	705.729	28,22	1,61	1,36	1,82
	C	214.371	420.121	95,98	377.397	-10,17	0,66	1,04	0,97
REGION CENTERS	A	311.224	353.329	13,53	308.143	-12,79	0,96	0,87	0,79
	B	369.500	457.153	23,72	569.837	24,65	1,14	1,13	1,47
	C	221.662	283.702	27,99	254.712	-10,22	0,68	0,70	0,66
OTHERS	A	343.341	406.052	18,26	395.137	-2,69	1,06	1,00	1,02
	B	418.075	507.959	21,5	646.282	27,23	1,29	1,26	1,66
	C	199.756	300.287	50,33	296.626	-1,22	0,62	0,74	0,76
TURKEY	A	323.644	404.392	24,95	388.544	-3,92	***1,00***	***1,00***	***1,00***
	B	409.890	519.977	26,86	660.169	26,96	1,27	1,29	1,70
	C	274.086	367.089	33,93	351.432	-4,27	0,85	0,91	0,90

Source: Compiled and calculated from SIS,
(*) All values fixed by 1980 prices. (**) A: Total; B: Public Sector; C: Private Sector

5.6.6. Evaluation: General Highlighted Points

Here, there are some points to be highlighted:

- As a result of loosing efficiency of Keynesian politics in the world, the recession of public sector from production areas has evidently existed in Turkey.
- The decrease of public sector investments has caused to decrease the number of labours.
- In spite of recession in public sector, general values have increased in the regions that have relatively benefited from public investments. This may show that public investments still play 'engine' role in Turkey.
- Between 1980 and 1990, little steps were taken to solve regional disparities providing by existing public investments transported outside the agglomeration centers. In 1990s, this politic, however, was left. Thus, decreasing public investments fairly deepened regional disparities.
- Turkey's manufacturing industry caught a production trend bigger than the one provided by investments between 1980 and 1990 because the effects of making enterprises, which had worked idle capacity, earned to the national economy. After 1990, both the shrinking of public sector and the reaching to optimum capacity in enterprises have caused to relative regression in production values.
- After 1980, labour productivity in manufacturing industry has tended to increase in public sector in spite of decreasing in private sector. It may be said that this is the contrary view to the dominant rhetoric of privatization politics.
- In 1990s, the labour wages have been evidently decreased in private sector. Although public sector has kept the increasing rates in order to set a kind of balance, Turkey's mean receded due to the employment recession in this sector.
- In public sector, the period of decrease in workforce and recession in production were balanced by the way increasing the labour wages. This factor provided relative stabilization in the productivity field. However, this caused to go out the general stabilization targets.
- In 1990s, a trend such fragmentation of firms due to the dissolution/downfall in scale economies and production in smaller units has been effective in Turkey. Thus, the number of total firms has obviously increased. This is appropriate to the expected results of flexible transformations.

- The emergence of the direct relation between wages per labour and produced value-added after 1980 verifies an idea that the increase of the wages affects production positively. However, Turkey economy that has frequently lived short-time depressions could not provide a consistent wage politics. Hence, the regular productivity increase could not be applied.
- New investment trends have not gone out of agglomeration centers that shaped before 1980. Thus, the spatial disparities have been opened increasingly.
- İstanbul Region is still the most powerful attraction center.
- Adana Region has fairly lost its attraction feature between 1980 and 1999.

5.6.7. The Shift-Share Analysis by Regions

In this section, the shift-share analysis by the regions is implemented according to employment values. Thus, some results related to the regional growth, structural transformation and competitive capability are defined.

Table 5.35. The results of the shift analysis by employment according to regions (*)

Regions	Period between 1980-1990			Period between 1990-1999		
	gij	kij	cij	gij	kij	cij
İstanbul Region	57.519,55	44.556,76	31.222,69	56.781,92	-15.885,75	12.788,83
İzmir Region	16.420,75	12.720,11	8.840,14	16.201,36	-4.532,62	9.714,26
Adana Region	12.067,81	9.348,17	-16.812,98	9.106,71	-2.547,76	-21.595,95
Ankara Region	6.978,22	5.405,59	-1.381,81	6.267,77	-1.753,52	8.492,75
Region Centers	12.447,23	9.642,08	-13.189,31	9.891,79	-2.767,40	5.218,62
Other Provinces	27.024,08	20.933,84	-8.773,92	23.861,63	-6.675,71	-7.713,91

Source: Compiled and calculated from SIS, 2000
(*) The national growth rate for 1980-90 is 0,17; and for 1990-99 is 0,12. The national rate of change in manufacturing industry for 1980-90 is 0,30; and for 1990-99 is 0,09
gij: The regional share related with the national growth; kij: The industrial mix component growth; cij: The competitive growth component (Total regional shift)

Between 1980 and 1990, İstanbul and İzmir regions showed "growth pole" feature, and Ankara Region, Adana Region, Region centers and the other provinces showed "downward transitional area" feature. This shows that Ankara and Adana regions, Region Centers and the other provinces began to lose investment possibilities and competitive advantages in the sector of manufacturing industry. İstanbul Region's high "industrial mix component" and "regional shift" values show that its economic growth and competitive advantages increased rapidly. On the contrary, low "regional shift" value of Adana Region and Region Centers shows that they lost competitive advantages (see Table 5.35).

It is seen that a serious recession has existed in manufacturing industry between 1990 and 1999. Taking the other sectors to the foreground in national economy, and negligence of industrialization resulted that all industrial mix component values are negative. While İstanbul, İzmir, and Ankara regions and Region Centers have kept their competition advantages, Adana Region and the other provinces have lost their competition and investment probabilities.

Fig. 5.11. The distribution of major industrial establishments in Turkey, at beginning of the 2000s

Source: Avcı, 2000: 58

As a result, manufacturing industry has lost its attractiveness due to the plugging of industrial accumulation channels between 1990 and 1999. As it is explained in general economic analysis, this situation indicates the reality of negligence of manufacturing industry that is the engine of stabile and rapid growth. This neglect caused (and will cause) spatial disparities, unstable growth and deepening economic problems.

Table 5.37. The firm structure in private sector by provinces, 1980-1990-1999

PROVINCE	1980		1990		1999		1980-1990		1990-1999	
	Total Number of Firms	Average Firm-Sized	Total Number of Firms	Average Firm-Sized	Total Number of Firms	Average Firm-Sized	Changes in firm number	Changes in firm size	Changes in firm number	Changes in firm size
ADANA	195	171	179	198	223	132	-16	27	44	-66
ADIYAMAN	1	0	4	28	12	57	3	28	8	30
AFYON	37	30	92	39	102	39	55	10	10	-1
AĞRI	4	13	2	0	5	26	-2	-13	3	26
AKSARAY	0	0	11	23	26	36	11	n.a.	15	13
AMASYA	18	31	21	75	26	75	3	44	5	0
ANKARA	520	34	471	65	856	60	-49	31	385	-5
ANTALYA	47	70	38	100	51	96	-9	30	13	-4
ARDAHAN	0	0	0	0	1	0	0	n.a.	1	n.a.
ARTVİN	3	16	1	0	3	76	-2	-16	2	76
AYDIN	75	58	87	69	95	75	12	10	8	7
BALIKESIR	92	41	71	82	95	97	-21	41	24	14
BARTIN	0	0	0	0	18	57	0	n.a.	18	n.a.
BATMAN	0	0	1	0	3	34	1	n.a.	2	34
BAYBURT	0	0	0	0	4	17	0	n.a.	4	n.a.
BİLECİK	24	68	36	297	54	207	12	229	18	-90
BİNGÖL	0	0	1	0	0	0	1	n.a.	-1	n.a.
BİTLİS	0	0	2	0	1	0	2	n.a.	-1	0
BOLU	52	57	90	90	126	107	38	34	36	17
BURDUR	22	28	28	38	41	42	6	11	13	4
BURSA	388	75	438	147	763	125	50	72	325	-22
ÇANAKKALE	25	188	30	217	27	163	5	29	-3	-54
ÇANKIRI	4	25	6	59	17	64	2	34	11	6
ÇORUM	54	25	79	40	87	50	25	15	8	10
DENİZLİ	116	52	94	106	357	98	-22	54	263	-8
DİYARBAKIR	7	19	9	25	23	34	2	6	14	10
EDİRNE	29	96	38	122	53	87	9	27	15	-36
ELAZIĞ	15	71	19	83	25	66	4	12	6	-17
ERZİNCAN	14	32	14	43	10	50	0	12	-4	7
ERZURUM	29	17	19	25	19	43	-10	8	0	19
ESKİŞEHİR	110	57	120	97	163	99	10	40	43	2
GAZİANTEP	135	42	113	105	260	85	-22	63	147	-20
GİRESUN	24	74	23	69	25	105	-1	-5	2	36
GÜMÜŞHANE	0	0	3	46	0	0	3	n.a.	-3	n.a.
HAKKARİ	0	0	1	0	1	0	1	n.a.	0	0
HATAY	52	64	58	72	73	66	6	7	15	-5
İÇEL	74	160	68	172	173	84	-6	12	105	-88
IĞDIR	0	0	0	0	2	0	0	n.a.	2	n.a.
ISPARTA	44	47	50	55	45	80	6	8	-5	25
İSTANBUL	3.885	54	3.734	79	3.622	80	-151	24	-112	2
İZMİR	845	60	868	86	985	79	23	25	117	-7
K.MARAŞ	17	40	38	63	71	110	21	23	33	47
KARABÜK	0	0	0	0	48	165	0	n.a.	48	n.a.
KARAMAN	0	0	17	134	24	214	17	n.a.	7	80
KARS	3	40	6	14	4	68	3	-26	-2	54

KASTAMONU	13	57	25	42	30	67	12	-15	5	25
KAYSERİ	97	105	103	143	177	132	6	38	74	-12
KİLİS	0	0		0	0	0	0	n.a.	0	n.a.
KIRIKKALE	0	0	10	50	7	46	10	n.a.	-3	-4
KIRKLARELİ	33	33	40	152	79	178	7	118	39	27
KIRŞEHİR	7	22	16	55	9	161	9	33	-7	106
KOCAELİ	213	142	258	181	512	112	45	39	254	-69
KONYA	138	34	135	53	263	49	-3	19	128	-4
KÜTAHYA	38	57	43	93	46	137	5	36	3	44
MALATYA	16	45	15	97	49	99	-1	52	34	3
MANİSA	155	54	165	116	195	113	10	63	30	-4
MARDİN	2	0	2	0	10	35	0	0	8	35
MUĞLA	18	27	15	33	31	37	-3	6	16	4
MUŞ	0	0	0	0	3	12	0	n.a.	3	n.a.
NEVŞEHİR	22	35	29	40	29	46	7	5	0	6
NİĞDE	11	130	5	392	13	152	-6	262	8	-239
ORDU	49	56	44	78	50	77	-5	22	6	-1
OSMANİYE	0	0		0	13	59	0	n.a.	13	n.a.
RİZE	11	21	30	80	22	66	19	59	-8	-14
SAKARYA	60	56	83	69	130	87	23	13	47	18
SAMSUN	90	24	99	39	89	49	9	15	-10	10
SİİRT	1	0	0	0	1	0	-1	n.a.	1	n.a.
SİNOP	19	33	22	82	26	32	3	48	4	-50
SİVAS	18	26	15	22	15	43	-3	-5	0	21
ŞANLIURFA	4	118	9	58	11	46	5	-60	2	-11
TEKİRDAĞ	60	155	110	200	275	166	50	45	165	-34
TOKAT	28	42	46	38	40	51	18	-4	-6	13
TRABZON	44	39	32	55	61	44	-12	17	29	-11
TUNCELİ		0	1	0	0	0	1	n.a.	-1	n.a.
UŞAK	74	28	47	65	60	81	-27	37	13	16
VAN	10	27	5	11	7	31	-5	-16	2	20
YALOVA		0		0	29	201	0	n.a.	29	n.a.
YOZGAT	10	56	15	60	17	46	5	5	2	-15
ZONGULDAK	98	33	62	56	54	53	-36	24	-8	-3
TURKEY	8.299	60	8.461	91	10.972	89	162	31	2.511	-2

Source: Compiled and calculated from SIS, 2000

Table 5.38. Wage and profit changes in manufacturing industry by provinces 1980-1990-1999 (private sector)

PROVINCE	1980 Wage Per-Worker	1990 Wage Per-Worker	1999 Wage Per-Worker	1980 Profit Over Per Worker	1990 Profit Over Per Worker	1999 Profit Over Per Worker
ADANA	264.129	418.396	484.761	818.796	1.236.671	1.060.864
ADIYAMAN	0	146.359	212.715	0	482.072	724.539
AFYON	161.378	231.067	195.549	584.769	851.144	902.557
AĞRI	80.000	0	159.869	420.000	0	1.574.359
AKSARAY	0	173.289	128.383	0	822.998	484.739
AMASYA	138.989	407.939	414.762	277.978	187.602	104.012
ANKARA	214.371	423.205	378.336	457.905	960.756	1.268.466
ANTALYA	229.488	234.874	245.899	311.838	626.320	696.277
ARTVİN	41.667	0	265.405	562.500	0	2.543.701
AYDIN	275.650	250.609	257.261	585.499	926.441	854.646
BALIKESIR	216.459	399.470	356.885	1.040.222	1.686.254	2.052.310
BARTIN	0	0	221.501	0	0	920.015
BATMAN	0	0	88.306	0	0	79.066
BAYBURT	0	0	202.210	0	0	970.127
BİLECİK	279.609	415.248	531.507	659.951	1.780.331	1.429.789
BOLU	247.367	391.395	338.547	616.378	1.792.737	1.232.073
BURDUR	121.113	165.371	127.536	487.725	345.515	297.756
BURSA	260.333	351.502	327.850	611.971	1.268.076	1.126.808
ÇANAKKALE	257.216	365.496	296.105	611.842	2.177.173	1.937.066
ÇANKIRI	158.416	188.502	223.409	712.871	557.101	582.640
ÇORUM	64.680	129.766	186.813	317.587	317.735	472.271
DENİZLİ	170.736	238.413	183.988	537.611	833.942	678.594
DİYARBAKIR	67.164	215.040	156.358	410.448	129.377	359.777
EDİRNE	211.323	271.278	256.935	495.492	1.375.970	1.276.825
ELAZIĞ	173.546	269.725	298.139	288.931	826.652	855.093
ERZİNCAN	154.195	198.023	249.644	1.018.141	688.490	102.970
ERZURUM	148.980	236.931	252.890	418.367	1.049.522	1.013.660
ESKİŞEHİR	300.144	412.327	339.418	555.058	1.210.868	921.969
GAZİANTEP	151.858	199.801	181.195	216.814	548.737	645.915
GİRESUN	201.463	267.898	191.277	568.374	1.254.840	626.927
GÜMÜŞHANE	0	156.369	0	0	193.194	0
HATAY	194.370	257.865	254.639	688.230	1.542.592	1.380.124
İÇEL	336.997	505.078	448.265	883.835	1.345.898	5.845.124
ISPARTA	203.954	279.558	315.427	748.312	945.678	1.469.945
İSTANBUL	285.056	368.833	346.137	649.784	1.259.509	1.285.105
İZMİR	281.640	319.298	330.290	724.655	1.334.115	1.263.402
K.MARAŞ	122.239	217.384	192.891	279.823	846.430	610.602
KARABÜK	0	0	398.757	0	0	332.682
KARAMAN	0	134.628	161.189	0	470.829	466.953
KARS	191.667	187.690	387.057	675.000	269.916	924.492
KASTAMONU	202.685	259.790	210.484	991.946	911.186	492.799
KAYSERİ	254.973	265.668	249.683	663.694	867.102	1.006.372
KIRIKKALE	0	229.875	227.636	0	355.057	586.788
KIRKLARELİ	123.862	438.609	470.756	813.297	2.219.322	1.558.898
KIRŞEHİR	177.632	245.465	384.959	381.579	326.797	619.068

KOCAELİ	444.631	666.983	694.731	1.497.315	2.861.709	2.396.464
KONYA	155.232	300.087	300.080	472.985	893.382	984.146
KÜTAHYA	166.667	245.344	238.327	276.230	610.123	525.911
MALATYA	147.222	277.496	188.106	283.333	473.626	369.942
MANİSA	165.727	338.234	372.643	376.424	1.416.343	1.582.971
MARDİN	0	0	420.581	0	0	4.220.592
MUĞLA	808.642	222.250	153.235	281.893	747.311	522.831
MUŞ	0	0	210.213	0	0	188.367
NEVŞEHİR	156.047	179.503	161.340	119.636	356.805	463.992
NİĞDE	246.681	297.183	350.267	345.912	903.035	1.377.414
ORDU	197.464	236.860	237.188	1.308.333	1.224.116	1.411.101
OSMANİYE			272.713	0	0	2.734.416
RİZE	90.517	262.352	175.770	323.276	579.617	734.386
SAKARYA	394.333	384.887	445.961	654.073	1.491.932	1.233.923
SAMSUN	163.453	190.238	206.328	417.355	613.443	968.909
SİNOP	77.409	421.012	103.503	139.021	430.314	242.980
SİVAS	142.251	234.147	357.791	282.378	688.093	1.343.222
ŞANLIURFA	138.298	155.907	146.840	227.660	507.961	1.316.821
TEKİRDAĞ	252.471	293.053	340.075	955.952	1.366.617	1.107.769
TOKAT	134.697	165.323	174.902	192.668	430.217	883.909
TRABZON	194.690	215.535	178.746	674.336	830.778	699.476
UŞAK	152.395	158.322	132.458	237.059	400.499	287.868
VAN	134.831	196.936	186.027	352.060	560.340	1.320.389
YALOVA	0	0	518.623	0	0	2.400.238
YOZGAT	315.978	429.498	434.102	2.382.406	1.528.135	2.338.461
ZONGULDAK	165.149	222.037	180.750	509.576	776.452	795.929
TURKEY	274.086	367.089	351.432	701.368	1.318.787	1.299.283

Source: Compiled and calculated from SIS, 2000

Table 5.39. The produced value-added (VA) per worker in private sector by provinces & the structure of public sector establishments, 1980-1990-1999

PROVINCE	PRIVATE SECTOR			PUBLIC SECTOR					
	1980	1990	1999	1980		1990		1999	
	Produced VA Per Worker	Produced VA Per Worker	Produced VA Per Worker	Firm	Employ-ment	Firm	Employ-ment	Firm	Employ-ment
ADANA	1.082.925	1.655.068	1.545.624	12	6.463	10	8.417	6	3.059
ADIYAMAN	0	628.432	937.255	3	1.123	5	1.712	2	1.647
AFYON	746.147	1.082.210	1.098.106	6	3.535	9	3.836	7	2.614
AĞRI	500.000	0	1.734.228	3	346	4	1.058	1	621
AKSARAY	0	996.286	613.123	0	0	2	108	1	49
AMASYA	416.968	595.541	518.774	2	1.764	2	246	0	0
ANKARA	672.276	1.383.961	1.646.802	40	23.588	31	12.220	26	8.138
ANTALYA	541.326	861.195	942.176	8	2.621	6	2.088	4	709
ARDAHAN	0	0	0	0	0	0	0	0	0
ARTVİN	604.167	0	2.809.106	7	3.570	8	3.634	4	1.260
AYDIN	861.149	1.177.049	1.111.907	4	2.144	4	1.912	5	840
BALIKESIR	1.256.682	2.085.724	2.409.195	10	3.851	6	5.036	5	2.829
BARTIN	0	0	1.141.516	0	0	0	0	0	0
BATMAN	0	0	167.372	0	0	1	607	1	490
BAYBURT	0	0	1.172.337	0	0	1	20	0	0
BİLECİK	939.560	2.195.579	1.961.296	3	743	2	650	0	0
BİNGÖL	0	0	0	0	0	1	95	1	86
BİTLİS	0	0	0	5	1.111	4	557	1	280
BOLU	863.744	2.184.132	1.570.620	5	1.550	6	1.839	3	560
BURDUR	608.838	510.886	425.292	4	1.143	3	1.224	3	952
BURSA	872.304	1.619.578	1.454.658	7	3.657	9	6.591	8	3.577
ÇANAKKALE	869.058	2.542.668	2.233.172	3	234	3	354	2	320
ÇANKIRI	871.287	745.604	806.049	4	240	3	621	1	399
ÇORUM	382.267	447.501	659.084	2	664	2	419	1	579
DENİZLİ	708.347	1.072.355	862.582	1	1.257	5	2.153	1	64
DİYARBAKIR	477.612	344.417	516.135	6	1.678	9	2.598	6	1.189
EDİRNE	706.816	1.647.248	1.533.760	3	209	2	108	0	0
ELAZIĞ	462.477	1.096.377	1.153.232	8	4.018	9	4.725	4	2.464
ERZİNCAN	1.172.336	886.513	352.614	3	1.672	5	2.119	3	1.015
ERZURUM	567.347	1.286.453	1.266.550	7	1.884	7	2.008	3	987
ESKİŞEHİR	855.202	1.623.195	1.261.387	8	10.537	7	6.814	5	4.250
GAZİANTEP	368.673	748.539	827.110	5	1.530	4	1.022	4	395
GİRESUN	769.837	1.522.738	818.204	3	1.392	3	1.251	2	699
GÜMÜŞHANE	0	349.563	0	1	34	0	0	2	149
HAKKARİ	0	0	0	1	24	2	107	1	63
HATAY	882.600	1.800.458	1.634.763	4	15.677	2	14.459	2	7.186
İÇEL	1.220.832	1.850.976	6.293.388	3	623	3	1.624	2	932
ISPARTA	952.266	1.225.236	1.785.372	4	1.669	3	1.358	1	149
İSTANBUL	934.841	1.628.342	1.631.242	34	30.434	27	18.630	20	9.073
İZMİR	1.006.296	1.653.412	1.593.691	16	21.775	11	19.837	10	12.652
K.MARAŞ	402.062	1.063.814	803.492	2	1.267	3	1.907	1	769
KARABÜK	0	0	731.439	0	0	0	0	0	0
KARAMAN	0	605.457	628.142	0	0	2	1.011	1	187
KARS	866.667	457.605	1.311.549	3	735	3	866	3	791

KASTAMONU	1.194.631	1.170.976	703.282	4	1.460	8	2.234	4	1.320
KAYSERİ	918.667	1.132.770	1.256.056	5	4.219	6	3.944	3	1.175
KİLİS	0	0	0	0	0	0	0	1	144
KIRIKKALE	0	584.932	814.424	0	0	9	8.867	8	5.363
KIRKLARELİ	937.158	2.657.931	2.029.654	4	1.925	4	1.539	1	619
KIRŞEHİR	559.211	572.262	1.004.026	1	16	1	390	0	0
KOCAELİ	1.941.946	3.528.692	3.091.196	14	14.452	11	8.952	7	4.085
KONYA	628.216	1.193.469	1.284.226	10	13.561	10	11.167	9	5.678
KÜTAHYA	442.897	855.467	764.238	3	3.523	1	2.283	2	1.388
MALATYA	430.556	751.122	558.047	4	5.796	5	5.086	6	2.892
MANİSA	542.151	1.754.577	1.955.614	5	1.950	3	1.468	3	674
MARDİN	0	0	4.641.173	1	33	2	103	1	183
MUĞLA	1.090.535	969.560	676.066	5	2.285	3	1.868	4	869
MUŞ	0	0	398.580	1	46	3	1.090	1	692
NEVŞEHİR	275.683	536.308	625.332	2	465	2	484	2	463
NİĞDE	592.593	1.200.218	1.727.681	4	605	3	1.452	1	809
ORDU	1.505.797	1.460.976	1.648.289	3	390	2	272	2	227
OSMANİYE	0	0	3.007.130	0	0	0	0	0	0
RİZE	413.793	841.969	910.156	32	18.923	34	11.134	33	8.973
SAKARYA	1.048.406	1.876.819	1.679.884	9	6.741	6	4.662	4	2.481
SAMSUN	580.808	803.681	1.175.237	9	14.651	11	10.111	8	4.558
SİİRT	0	0	0	3	3.661	2	359	0	0
SİNOP	216.430	851.326	346.483	2	1.053	3	835	1	123
SİVAS	424.628	922.239	1.701.013	5	4.294	6	4.591	4	3.443
ŞANLIURFA	365.957	663.868	1.463.661	4	413	7	821	2	132
TEKİRDAĞ	1.208.423	1.659.670	1.447.844	2	479	2	549	2	505
TOKAT	327.366	595.540	1.058.811	4	2.170	5	2.758	4	2.592
TRABZON	869.027	1.046.313	878.223	11	4.765	13	3.626	10	2.661
TUNCELİ	0	0	0	0	0	1	40	1	27
UŞAK	389.453	558.821	420.326	1	1.108	1	939	3	809
VAN	486.891	757.276	1.506.417	4	556	7	1.382	5	1.307
YALOVA	0	0	2.918.861	0	0	0	0	0	0
YOZGAT	2.698.384	1.957.634	2.772.563	2	483	1	340	2	882
ZONGULDAK	674.725	998.489	976.679	14	22.404	9	20.575	2	6.601
TURKEY	975.454	1.685.876	1.650.715	408	287.189	410	249.762	289	133.698

Source: Compiled and calculated from SIS, 2000

Table 5.40. The changes in overall working-hour by private sector, 1980-1990-1999

PROVINCE	1980	1990	1999	Changes	
	Working-hour per worker (annual mean)	Working-hour per worker (annual mean)	Working-hour per worker (annual mean)	1980-1990	1990-1999
ADANA	1.466	1.915	1.941	449	26
ADIYAMAN	n.a.	1.936	1.967	n.a.	32
AFYON	1.838	1.974	1.949	137	-26
AĞRI	2.100	n.a.	2.151	n.a.	n.a.
AKSARAY	n.a.	1.775	1.867	n.a.	92
AMASYA	1.515	1.071	1.769	-443	698
ANKARA	1.852	1.686	1.766	-166	80
ANTALYA	1.373	1.731	1.908	358	177
ARDAHAN	n.a.	n.a.	n.a.	n.a.	n.a.
ARTVİN	1.733	n.a.	1.539	n.a.	n.a.
AYDIN	1.782	1.981	1.857	199	-124
BALIKESIR	1.693	1.885	1.860	192	-25
BARTIN	n.a.	n.a.	1.858	n.a.	n.a.
BATMAN	n.a.	n.a.	2.098	n.a.	n.a.
BAYBURT	n.a.	n.a.	1.991	n.a.	n.a.
BİLECİK	1.651	1.942	1.936	291	-6
BİNGÖL	n.a.	n.a.	n.a.	n.a.	n.a.
BİTLİS	n.a.	n.a.	n.a.	n.a.	n.a.
BOLU	1.639	1.924	1.833	284	-91
BURDUR	1.556	1.903	2.123	347	220
BURSA	1.661	1.962	1.921	301	-41
ÇANAKKALE	1.882	2.186	1.903	304	-283
ÇANKIRI	1.580	1.788	1.822	209	34
ÇORUM	1.876	1.745	2.008	-131	263
DENİZLİ	1.685	2.014	2.070	329	55
DİYARBAKIR	3.939	2.027	1.887	-1.912	-140
EDİRNE	1.493	2.048	1.962	554	-85
ELAZIĞ	1.665	1.587	1.997	-78	411
ERZİNCAN	1.960	1.829	1.514	-131	-315
ERZURUM	2.158	2.028	2.114	-130	86
ESKİŞEHİR	1.784	1.858	1.884	74	25
GAZİANTEP	2.555	2.256	2.129	-299	-126
GİRESUN	1.686	1.705	1.715	19	10
GÜMÜŞHANE	n.a.	1.431	n.a.	n.a.	n.a.
HAKKARİ	n.a.	n.a.	n.a.	n.a.	n.a.
HATAY	1.854	1.950	1.929	96	-21
İÇEL	1.501	1.964	1.959	463	-6
IĞDIR	n.a.	n.a.	n.a.	n.a.	n.a.
ISPARTA	1.577	1.874	1.938	297	64
İSTANBUL	1.742	1.842	1.794	100	-48
İZMİR	1.668	1.843	1.797	175	-46
K.MARAŞ	1.441	2.169	2.141	728	-28
KARABÜK	n.a.	n.a.	2.171	n.a.	n.a.
KARAMAN	n.a.	2.059	1.783	n.a.	-276
KARS	1.898	1.655	1.600	-243	-54
KASTAMONU	1.080	1.926	1.992	846	67

KAYSERİ	1.619	1.993	2.014	374	21
KİLİS	n.a.	n.a.	n.a.	n.a.	n.a.
KIRIKKALE	n.a.	2.045	1.573	n.a.	-472
KIRKLARELİ	1.754	2.039	1.911	285	-128
KIRŞEHİR	1.634	2.118	1.769	484	-348
KOCAELİ	1.424	1.693	1.619	269	-74
KONYA	1.929	1.787	1.963	-142	176
KÜTAHYA	1.802	1.895	2.300	92	405
MALATYA	1.678	2.489	2.077	810	-411
MANİSA	1.961	1.925	1.899	-36	-26
MARDİN	n.a.	n.a.	1.360	n.a.	n.a.
MUĞLA	1.245	1.595	1.916	349	321
MUŞ	n.a.	n.a.	2.008	n.a.	n.a.
NEVŞEHİR	1.621	1.877	2.046	256	169
NİĞDE	1.531	2.137	2.072	606	-65
ORDU	1.639	1.977	1.719	338	-258
OSMANİYE	n.a.	n.a.	1.578	n.a.	n.a.
RİZE	1.801	1.300	1.735	-501	435
SAKARYA	1.587	1.739	1.737	151	-2
SAMSUN	1.834	1.915	1.872	80	-43
SİİRT	n.a.	n.a.	n.a.	n.a.	n.a.
SİNOP	1.612	2.226	1.974	614	-252
SİVAS	1.635	2.158	1.797	523	-362
ŞANLIURFA	3.980	1.918	1.932	-2.062	13
TEKİRDAĞ	1.559	2.022	1.934	463	-88
TOKAT	2.077	1.921	1.977	-156	57
TRABZON	2.082	1.764	1.810	-318	46
TUNCELİ	n.a.	n.a.	n.a.	n.a.	n.a.
UŞAK	2.113	2.238	2.214	124	-23
VAN	1.247	1.927	1.703	680	-224
YALOVA	n.a.	n.a.	1.644	n.a.	n.a.
YOZGAT	1.608	1.750	1.606	142	-145
ZONGULDAK	1.828	2.027	2.146	199	119
TURKEY	**1.698**	**1.874**	**1.861**	**176**	**-12**

Source: Compiled and calculated from SIS, 2000

5.7. Evaluation of the Selected Variables in Relation to Flexible Production

This section aims to prepare a mapping which includes the possibilities and probabilities of flexible production in Turkey's provinces. For this, some requirements ('inputs') have defined by the thesis. These are:

- All industrial analyses should be based on two assertions: first is that industrial development should accelerate the economic growth, and second is that it should increase the productivity.
- Industrial production should provide local economic growth as well as national growth.
- The changes in economic variables are evaluated positively/optimistically if only performing former two facts.

It should be noted here that the studies those focuses on the flexible production generally neglect these three facts, which described above. Indeed, the relationship between a locality/region and flexible production should be analyzed successfully providing by reaching not only the more flexible level, but also higher growth rate and more diversified competitive advantages.

The former chapters of the study include the changes that have occurred by means of the emergence of flexible production. Some of them have been thought as only assertion of specific approaches. This section tries to analyze the assertions that are unavoidably limited by data-sets and spatial units. The main assumption of the indicators is derived from two basic studies: Eraydın (1992) and Sforzi (1988).

The first and most known result of transition to more flexible level in production is *getting smaller the average firm-size, and increasing overall number of the firms*. According to the experiences in many localities and 'new' industrial districts, before all else Third Italy, these types of changes in firm-size and firm numbers facilitate to be formed 'vertical disintegration'; improved 'face-to-face' and 'network' types subcontracting processes.

The second indicator of the transition is about improving *technological innovation* possibilities. Sforzi (1988) describes two main factors that could create technological innovations: *the falling rates of the profit* and/or *the increases of the labour wages* encourage the firms in sequent period to behave more innovative (see Eraydın, 1992). This claim is analyzed in the case study, but it is the fact that this relation cannot be seen directly in less developed or late-industrializing countries like Turkey.

The third indicator of the transition is about produced value-added per worker. Besides increasing the productivity, it is expected to *increase value-added per worker* thorough flexible production.

Additionally, the important *changes in the structure of the employment* with transition to flexibility. The overall employment, for example, generally declined in the transitional processes. *This indicator should be examined related to the firm-size and total number of the firms*. Another change in employment is *the decreasing overall working-hour* in relation to emergence the 'flexible labour market'.

With particular attention, because the transitional processes have emerged parallel to neo-liberal and enterprise economy, *recession of the public investments* is thought as part of the flexible production. However, *this indicator is not be related to only production processes*.

The last indicator that used our analyses is directly related to flexible production is that *decreasing stocks of the commodities*. This is not only an indicator but also necessity of more flexible production.

Finally, it should remind that the analyses are generally implemented by private sector because the public sector does not have efficient role in the transitional processes. In addition, the provinces are used as the spatial unit due to limits of our data-set.

5.7.1. The Distribution of Industrial Firms

Analysis of the total number of firms and the average size of firms (the average number of workers of each firm) indicates that the lower value of the average firm-size is generally caused due to less developed industry; and sometimes little growth of the industry can be reflected the huge growth rates in total number of the firms. In addition, the public sector emphasizes the firm-size misleadingly; so looking at only private sector may be trustworthier. These types of problems make evaluation more difficult. But still we can emphasize some specific points:

In the period between 1980 and 1990, Turkey's provinces, and of course the country, were not faced the noticeable changes in firm structure. Some highlighted points as follows:

- It may be said that the provinces those had developing tendencies in manufacturing industry increased its total number of firms, such as (the number in parentheses shows the numbers of added firms) Afyon (55), Bursa (50), Tekirdağ (50), Kocaeli (45), Bolu

(38), Çorum (25), İzmir (23), Sakarya (23), and K.Maraş (21).

- In that period, some industrial regions had negative (-) values according to the change in overall firm numbers such as İstanbul (-151), Ankara (-49), Zonguldak (-36), Uşak (-27), G.Antep (-22), Denizli (-22), B.Esir (-21), Adana (-16), Trabzon (-12), Antalya (-9), İçel (-6), and Konya (-3).
- The noticeable changes in the firm-size were made in the provinces of Kastamonu (-15) and Tokat (-4).

In the period between 1990 and 1999, the change in the average firm-size of Turkey is –2. This period really differ from the former period according to firm structure, which some highlighted points are:

- Almost all provinces have increased the overall firm number. The provinces those mostly taken attention: Ankara (385), Bursa (325), Denizli (263), Kocaeli (254), Tekirdağ (165), G.Antep (147), Konya (128), İzmir (117), İçel (105), Kayseri (74), Sakarya (47), Adana (44), Eskişehir (43), Kırklareli (39), Bolu (36), Malatya (34), K.Maraş (33), Manisa (30), Trabzon (29), B.Esir (24), Bilecik (18), Muğla (16), Aksaray, Edirne, Hatay (15), D.Bakır (14), Antalya, Burdur, Uşak (13), and Afyon (10).
- In that period, some industrial regions have had negative (-) values according to the change in overall firm numbers such as İstanbul (-112), Samsun (-10), Zonguldak, and Rize (-8).
- 16 provinces have increased the small-sized firms such as Niğde (-239), Bilecik (-90), İçel (-88), Kocaeli (-69), Adana (-66), Sinop (-50), Edirne (-36), Tekirdağ (-34), Bursa (-22), Gaziantep (-20), Elazığ (-17), Yozgat (-15), Kayseri (-12), Ş.Urfa, Trabzon (-11), Denizli (-8), İzmir (-7), Hatay, Ankara (-5), Konya, Antalya, and Manisa (-4). Furthermore, these provinces may be classified as successfully providing two tendencies: increasing the overall firm number and decreasing the average firm-size.

The changes in the overall firm number and the average firm-size could not be evaluated directly paralleled to flexible production. On the other hand, these highlighted provinces are used in following analyses as to compare other indicators.

5.7.2. The Falling Rate of Profits and Innovation Capabilities

Sforzi's (1988) claim that '*the falling rate of profits causes emerging technological and/or flexible innovations*' is tested in this section (see Eraydın, 1992). Firstly, we would

define which provinces' profits decreased in 1980s. Afterwards, the results are compared with emergence the rapid growth and/or locational and competitive advantages in 1990s using by the results of the shift-share analysis.

Although the profit is not equal to the subtraction of value-added from labour wages definitely, this account may be used in place of the profit values (Eraydın, 1992). The results are summarized as follows:

- Between 1980 and 1990, the falling rates of profit in manufacturing industry mostly occurred in these provinces: Yozgat, Artvin, Ağrı, Kars, Erzincan, Diyarbakır, Çankırı, Burdur, Amasya, Ordu, Kastamonu, Kırşehir, and Çorum.
- The provinces, which had lost the rate of profits in 1980s, have not had similar rates in 1990s. They generally increased their profit rates, like that Sforzi says, except Erzincan, Burdur, Amasya, and Kastamonu.

If these results are evaluated compared with the shift-share analysis results in the period between 1990 and 1999:

- Artvin, Ağrı, Kars, Diyarbakır, Çankırı, Burdur, Kastamonu, Kırşehir, and Çorum have positive (+) values in 'industrial mix component' (IMC) and 'competitive growth component' (CGC) according to the overall manufacturing industry.
- There are no provinces that have negative (-) values in both indicators.
- Although Erzincan, Amasya, Ordu and Yozgat have positive (+) values in IMC, they have negative (-) values in CGC according to the overall manufacturing industry.
- According to 'textile' industry (32): Amasya and Kastamonu have positive (+) values in both indicators. Even though Burdur has positive (+) value in IMC, it has negative (-) value in CGC.
- According to 'food, beverage, and tobacco' industry (31): Kars, Kastamonu and Burdur have positive (+) values in both indicators. Although Yozgat, Erzincan, Amasya and Ordu have positive (+) values in IMC, they have negative (-) values in CGC.
- According to 'wood and wood products' industry (33): Ordu has positive value in both indicators. Though Burdur and Kastamonu have positive (+) values in IMC, they have negative values (-) in CGC.
- According to 'non-metallic mineral products' industry (36): Burdur and Ordu have positive values in both indicators. Though Kastamonu and Amasya have (+) value in IMC, they have negative (-) value in CGC.
- We do not have adequate data by sub-sectors for Artvin, Ağrı, Diyarbakır, Kırşehir and Çankırı in order to reach more detailed results.

In the period between 1990 and 1999, the falling rates of profit are mostly made in these provinces: Kırklareli, Giresun, Erzincan, Bolu, Kocaeli, Kastamonu, Bilecik, Aksaray, Eskişehir, Tekirdağ, Sakarya, Çanakkale, K.Maraş, Muğla, Sinop, Adana, Hatay, Denizli, Bursa, Trabzon, Uşak, Malatya, Edirne, Kütahya, Amasya, Aydın, İzmir, Burdur, Erzurum. It is not possible to determine what these provinces are going to face in future. On the other hand, it should not be neglected that Turkey's profit rates generally decreased in 1990s.

5.7.3. The Labour Wages and Innovation Capabilities

The second claim of Sforzi (1988) is that *the increased in labour-wages causes emerging technological and flexible innovations* is tested in this section (see Eraydın, 1992). Firstly, the changes in labour-wages are defined according to provinces. Afterwards, the results are compared with the emergence of rapid growth and/or competitive advantages using by the results of the shift-share analysis. The results are:

- Between 1980 and 1990, the increase of labour wages was made higher than the Turkey's mean in full 20 provinces. 13 of them (Sinop, Kırklareli, Amasya, Ankara, Manisa, Rize, Diyarbakır, Bolu, Bilecik, Malatya, Yozgat, Eskişehir, and K.Maraş) showed 'growth pole' (GP) feature according to shift-share analysis.
- Although Balıkesir, İçel, Adana, Konya, Kocaeli, Çanakkale, and Elazığ had lost their competitive advantages in the period between 1980 and 1990, they continued to pay high wages to workers.
- Balıkesir and Konya had noticeable shift. Even though both provinces were labeled 'downward transitional areas' (DTA) in the period between 1980 and 1990, they continued to cost high labour-wages. Interestingly they leaped up to GP group in the period between 1990 and 1999. This shift may be evaluated as conforming the Sforzi's criteria.
- Beside Balıkesir and Konya, 8 provinces (Kırklareli, Ankara, Rize, Diyarbakır, Bolu, Malatya, Eskişehir, and K.Maraş) have reached the positives (+) values in both indicators between 1990 and 1999. These provinces generally have reached the high rates in 'textile' industry (32) except Bolu, Bilecik, and Elazığ.
- Eight provinces (Kırklareli, Amasya, Kocaeli, Ankara, Konya, Malatya, Çanakkale, and K.Maraş) have showed GP feature according to 'textile' industry (32) in the period between 1990 and 1999.

- Between 1990 and 1999, the increase of labour-wages has been higher than Turkey's mean in 33 provinces. 17 of them have had lost their competitive advantages in the same period. Referring to Sforzi, they would reach more innovative production in following years.

It is seen that Sforzi's wage criterion interestingly provides more efficient results than his profit criteria. According to Turkey's industrial experiences, the increasing costs of labour-wages motivate the employers to invest more flexible sectors despite the fact that does not mean completely 'innovation'.

5.7.4. The Produced Value-Added Per Worker

It is known that the transition to flexible production results to increase produced value-added per worker (see Chapter 3). In this part, we define the provinces that increased this value in the periods 1980-90 and 1990-99.

In the period between 1980 and 1990:

- The Increase of produced value-added per worker is higher than the country's mean in 15 provinces: Kırıkkale, Çanakkale, Kocaeli, Bolu, Bilecik, Manisa, Edirne, Hatay, Balıkesir, Sakarya, Eskişehir, Giresun, Bursa, Erzurum, and Ankara.
- Many provinces have lower value than Turkey's mean, interestingly including İstanbul, İzmir, Adana, Konya, Tekirdağ, Gaziantep, K.Maraş, Denizli and Trabzon

In the period between 1990 and 1999:

- The Increase of produced value-added per worker is higher than the country's mean in 43 provinces:
- The provinces have lower value than Turkey's mean includes İzmir, Adana, Bursa, Hatay, Tekirdağ, Eskişehir, Kocaeli, Sakarya, K.Maraş, Denizli and Trabzon

The changes in the indicator do not provide interpretational results. On the other hand, it is important to define the provinces which reached the highest values. By the year of 1999, (orderly) İçel, Mardin, Kocaeli, Osmaniye, Yalova, Artvin, Yozgat, Balıkesir, Çanakkale, Kırklareli, Bilecik, Manisa, Isparta, Ağrı, Niğde, Sivas, and Sakarya achieved to overcome Turkey's mean.

5.7.5. The Structure of Public Sector

In the periods of 1980-1990 and 1990-1999, the number of firms belonged to public sector in Turkey regularly decreased. During these two decades, the overall number of the

firms in the manufacturing industry declined from 408 to 289. This distributed to provinces by 14 establishments in Ankara and İstanbul, 12 in Zonguldak, 7 in Kocaeli, 6 in Adana and İzmir, 5 in Balıkesir and Sakarya, 4 in Antalya, Bitlis, Elazığ and Erzurum.

Employment in public sector similarly decreased from 287.189 in 1980 to 133.698 in 1999 (153.491 workers) including 21.361 workers in İstanbul, 15.803 in Zonguldak, 15.450 Ankara, 10.367 in Kocaeli, 10.093 in Samsun, 9.950 in Rize, 9.123 in İzmir, 8.491 in Hatay, 7.883 in Konya, 6.287 in Eskişehir, 4.260 in Sakarya, 3.661 in Siirt, 3.404 in Adana, and 3.044 in Kayseri.

These distributions show that although the recession in both public investments and public employment in manufacturing industry may be related to transition to flexible systems, it could not be examined by only this because of existing many outer factors. It may be useful to evaluate in relation to other indicators, which will be done in the last section of the case study.

5.7.6. The Changes in Overall Working-Hour

Flexible systems provide lower working-hour for labour because of improving subcontracting systems, flexible labour market and like. This section aims to analyze how the working-hour changes in Turkey by provinces.

Firstly, the annual mean of working-hour per labour is calculated. Afterwards, the changes in this indicator are determined according to the years of 1980, 1990, and 1999. The findings are as follows:

- By the year of 1980, Turkey's mean is 1.698 hours. 32 provinces have lower values than Turkey's mean including Adana, Antalya, Kocaeli, Tekirdağ, Sakarya, Bursa and İzmir. The lowest values are seen in the provinces of (orderly) Kastamonu, Muğla, Van, Antalya, Kocaeli, Kahramanmaraş, Adana, Edirne and İçel.
- By the year of 1990, Turkey's mean is 1.874 hours. 21 provinces have lower values than Turkey's mean including Ankara, Kocaeli, Antalya, Sakarya, Trabzon, Konya, İstanbul, İzmir and Eskişehir. The lowest values are seen in the provinces of (orderly) Amasya, Rize, Gümüşhane, Elazığ, Muğla, Kars, Ankara and Kocaeli.
- By the year of 1999, Turkey's mean is 1.861 hours. 27 provinces have lower values than Turkey's mean including Kocaeli, Sakarya, Ankara, İstanbul, İzmir and Trabzon. The lowest values are seen in the provinces of (orderly) Mardin, Erzincan, Artvin, Kırıkkale, Osmaniye, Kars, Yozgat, Kocaeli, Yalova, Van and Giresun.

The changes in working-hour are evaluated with shift-share analyses results. By this way, it may be pointed out the provinces while decreasing per working-hour, increased growth and/or competitive capabilities.

- Between 1980 and 1990, the working-hour per worker was decreased in 15 provinces, and all of them could have positive (+) values in IMC. Whereas, only 8 provinces (Diyarbakır, Rize, Amasya, Gaziantep, Ankara, Konya, Çorum, and Manisa) could have positive (+) values in CGC. At the same time, these provinces showed the 'growth pole' (GP) feature.
- Between 1990 and 1999, the working-hour per worker has decreased in 35 provinces, and all of them could have, as being in the former period, positive (+) values in IMC. However, only 15 provinces (Malatya, Sivas, Kırşehir, Van, Diyarbakır, Kırklareli, Gaziantep, Bolu, Tekirdağ, Kars, Bursa, Kahramanmaraş, Balıkesir, Uşak, and Sakarya), which have showed the GP feature, could have positive (+) values in CGC.

5.7.7. The Changes in Stocks

One of the most important fundamental differences between Fordist mass production and flexible production is that although mass production is based on getting stock the standardized goods, flexible production is based on the market demands without stock. Thus, in this part, we try to evaluate changes in stocks in provinces.

Between 1980 and 1990, the provinces those the mostly reduced of their stocks are in row Trabzon, Kocaeli, Samsun, Kayseri, Antalya, Gaziantep, Şanlıurfa, Konya, Kastamonu, Nevşehir, Kırşehir, Çorum, Hatay, Erzurum and Kırklareli. Between 1990 and 1999, the number of the provinces those reduced of the stocks is greatly raised. Some of them: Sakarya, Kocaeli, Afyon, Amasya, İçel, Isparta, Gaziantep, Bilecik, Trabzon, Elazığ, Şanlıurfa, Diyarbakır, Zonguldak, Hatay, Karabük, Kocaeli, Nevşehir, Sinop, and Kayseri.

In the 1980s, the stock reducing was made in concentrating to the sub-sectors of 'manufacture of food, beverages, and tobacco' (31), 'manufacture of paper and paper products' (34), 'manufacture of chemicals' (35), 'manufacture of non-metallic mineral products' (36), and 'basic metal industries' (37). In 1990s, almost whole sub-sectors have been included to them.

5.7.8. Evaluation

This section aims to grade the results of the previous analyses as to define probabilities and potentials of the provinces. By this way, it is possible to prepare a ranking that indicates the flexibility possibilities of each city. In addition, the sift-share analysis is implemented by provinces according to the number of labours in 'textile' (32) industry because many authors in Turkey, e.g. Eraydın (1992) and Pınarcıoğlu (2000), claim that this industry has too much potentials to integrate the world market and passing through more flexible production organizations. According to the analyses (see Table 5.36):

- The provinces those has the most potential to adapt flexible production were not replaced different from agglomeration centers. The most scored provinces, Kocaeli, Ankara, Bursa, İçel, Konya, Sakarya, and Gaziantep, had already reached the advantages of the urban scale economies before 1980.
- The provinces replacing surroundings of the metropoles, such as Denizli, Sakarya, Tekirdağ, Amasya and Balıkesir, have high probabilities that they may try to integrate to world economy using by the metropoles' advantages.
- Adana and İzmir are replaced behind in the row.
- Different types of cities replacing different regions, such as Diyarbakır, Kahramanmaraş, Kayseri, Bolu, Çorum, Eskişehir, Kastamonu, Malatya and Manisa, have had high grades relatively.

At last, if evaluating the results of the shift-share analysis by the 'textile' industry:

- Between 1980 and 1990, the agglomeration centers like İstanbul, Adana, Bursa, İzmir, İçel, Kayseri, Gaziantep and Tekirdağ had the highest 'industrial mix component' values. Aydın, Denizli, Antalya, and Manisa followed them.
- At the same period, Tekirdağ, Denizli, Eskişehir Malatya, and Samsun had the high 'comparative component growth' values.
- Between 1990 and 1999, the results of the former period are confirmed, and Denizli, Tekirdağ, Gaziantep, Kırklareli, Kahramanmaraş, Malatya, Kastamonu and Uşak have reached the higher values.
- Despite these increase, the industrial centers, such as İstanbul, Bursa, and İzmir are still on the top.

It may be said that two different analyses are collided with each other. Hence, besides existing agglomeration centers, some small-cities have had potentials to transform more flexible level if they prefer the correct technologies and strategies.

Fig. 5.12. The shift share analyses on the provinces according to employment values for 'textile' and 'manufacturing' industries

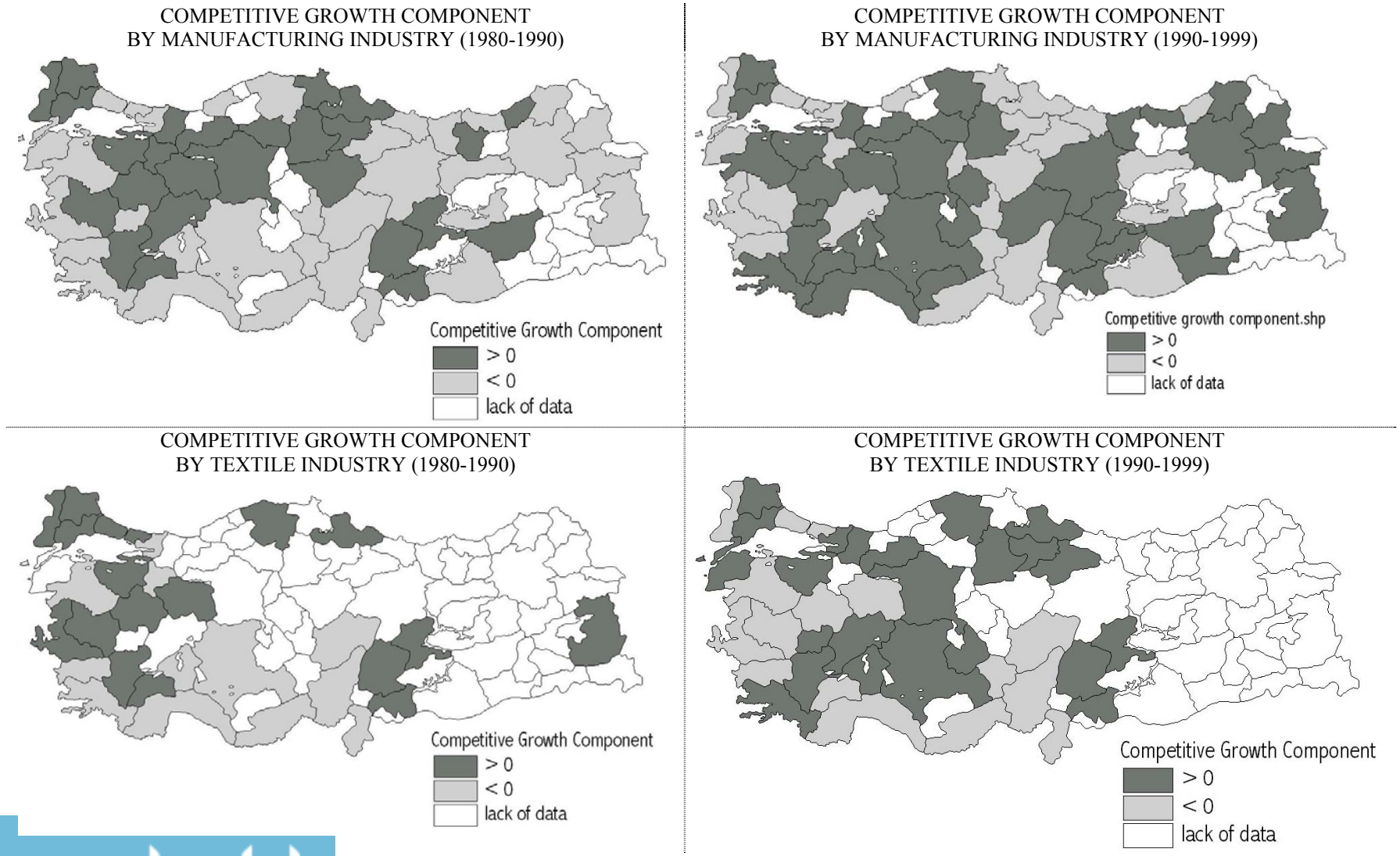


Fig. 5.13. The ranking map by provinces according to possibilities and potentials through flexible transformations

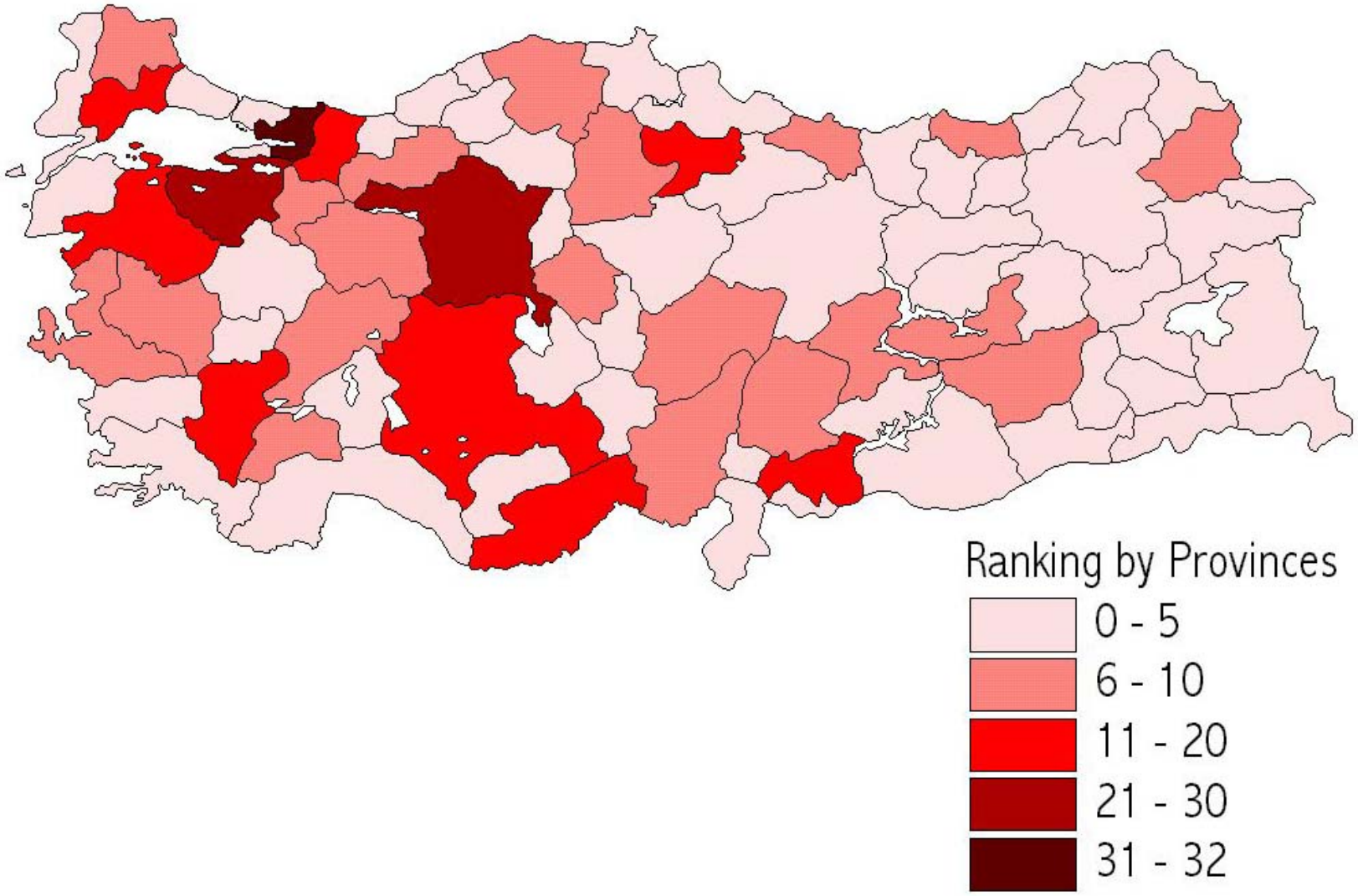


Table 5.36. The ranking table by provinces according to possibilities and potentials of flexible transformations (*)

PROVINCES	Firm Structure	Criteria I	Criteria II	Value-Added per Worker	Public Sector Structure	Working-Hour	Stocks	Total Grade
KOCAELİ	18		4	2	2		6	32
ANKARA	17		3	2	4	1		27
BURSA	19			1		1		21
İÇEL	13		1	2			3	19
KONYA	6		8	1	1	1	1	18
SAKARYA	4			2	2	1	5	14
GAZİANTEP	6			1		2	4	13
DENİZLİ	12							12
TEKİRDAĞ	11					1		12
AMASYA		3	4			1	3	11
BALIKESİR			6	3	1	1		11
ADANA	5		3		2			10
İZMİR	7		1		2			10
KIRKLARELİ	2		5	1		1	1	10
D.BAKIR	1	3	2	1		2		9
K.MARAŞ	3		5			1		9
KAYSERİ	4			1	1		3	9
BOLU	4		2	1		1		8
ÇORUM	2	3		1		1	1	8
ESKİŞEHİR	3		3	1	1			8
KASTAMONU	1	6					1	8
MALATYA	2		5			1		8
MANİSA	2		2	3		1		8
AFYON	3			1			3	7
BİLECİK	2		1	2			2	7
BURDUR	1	5						6
ELAZIĞ	1		1	1	1		2	6
KARS		4		1		1		6
KIRŞEHİR		3		1		1	1	6
ORDU		4	1	1				6
TRABZON	1						5	6
AĞRI		3		2				5
ARTVİN		3		2				5
ÇANAKKALE			3	2				5
HATAY	1		1	1	1		1	5
ISPARTA				2			3	5
İSTANBUL				1	4			5
RİZE			2	1	1	1		5
SAMSUN			1	1	1		2	5
ŞANLIURFA			1	1			3	5
ANTALYA				1	1		2	4
ÇANKIRI		3		1				4
EDİRNE	2		1	1				4
ERZURUM				2	1		1	4
YOZGAT		2		2				4
ZONGULDAK				1	3			4
KIRIKKALE			1	2				3
NEVŞEHİR				1			2	3
NİĞDE			1	2				3
SİVAS				2		1		3

(*) Calculated from previous tables

Chapter 6
CONCLUSION

This thesis has aimed to investigate the debates on the transition from Fordist mass production to flexible production. This productive scope has been enlarged so as to serve to the needs of building a view to provide a complete understanding on the transition debates which have the profound contents concerning economic, social, political, cultural, and spatial dimensions. It should be said that the thesis has mostly intensified economic and spatial dimensions by means of establishing three fundamental legs.

The first leg of the study has regarded the dominant system, 'capitalism', in a universal manner. The interpretation of the capitalist system has been important because the growing importance of flexible production is directly related with it. Many authors have tried to explain what is exactly made in the system by means of the emergence of the transition to flexible production. Thus, 'the discussion of the flexibility' refers to 'the discussion of the capitalist transformation'. Under this perspective, to define what capitalism is and why the relationship between production types (e.g. mass production, craft production, flexible production and the like) and capitalist procedural laws, have been subject to evaluation. The thesis has tried to compensate this need in order to build a leg of the study. Indeed, this leg has built the capabilities to evaluate what the approaches on flexible production say, and to prefer the one to be of help in understanding the whole transformation.

The second leg of the study has regarded the 'city' and the 'region' as the definitely subjects of the flexible production debates. The vital point is underpinned that the current phase of capitalist transformation is linked to urban and regional restructuring. In other words, the shifts towards the emergence of flexible production have brought many questions regarding the city and the region. Furthermore, they have become the key factors of successful capital accumulation. This leg has tried to bring about that any geography, its spaces and places are not constituted entities on which economic-social changes only take place, but rather, are the crucial determining subjects of such changes.

The third leg of the study has regarded the case study on manufacturing industry in Turkey. This leg is underpinned by the comprehension that Turkey should not be isolated from flexible production debates including political, social, institutional and productive changes that has been experienced especially after 1980. The influential changes, which

took place in all national economies following the crisis of Fordism, have evidently affected the organizations of space in Turkey. What's more, Turkey has clearly searched how to adapt to world economy that has been regularly changing. Third leg has concerned the dimensions of these adaptation trials.

It may be claimed that these three legs provide us the general perception on capitalist transformation and changes of the world economy in relation to flexible production; and additionally provide the capabilities to evaluate/determine implications within our geography, Turkey. Certain concluding remarks could be given here under this perspective:

- Following the introduction, the second chapter concerned the agendas on the 'capitalism' as a 'historical' and an 'industrial' system. This section claims that capitalism is a '*growth oriented*' (Harvey, 1989) that means a stable and continual growth is a prerequisite for vitality in order to sustain the capitalist accumulation. This thesis agrees with that the concept of '*mode of production*' should be replaced at the heart of the understanding tries of the system because it provides the explanation of the fundamental factors of capitalism.

In addition, the nature of the system is defined providing by the realization dynamic that is so-called as the '*accumulation of capital*'. It basically refers to the processes that capital acquired, broadly concerns social processes with division of labour. According to it, the class struggle and organization of the labour processes are the most important factors in shaping the capitalist system. Under state of the plugged social reproduction, the general crisis with interrupted capital accumulation is made. One of the assumptions of the thesis is that current crisis in the capitalist system, related to the emergence of flexible production, has appeared due to this type of disequilibrium among 'mode of production', 'accumulation of capital', and 'social reproduction'.

- The approaches on the transition to flexible production are the major focal areas of the third chapter. Thus, three frameworks, which have been the most valid and referred approaches, are evaluated in detail within this chapter. Firstly, it should be noted that these approaches have not only some differences but also some similarities.

The neo-Schumpeterian approach, established by Freeman and Perez (1988), stems from Kondratiev's work on long-waves of 'boom' and 'bust'. According to this framework, Fordism could be labeled as typically 'fourth Kondratiev' that was built on the predomination of mass consumption industries. And the 'fifth Kondratiev', post-Fordist period, is defined by leading the key factors of 'information technologies'.

The second approach, flexible specialization, has been established by Piore and Sabel (1984). The framework draws an opposition between mass production and flexible specialization or craft production. According to Piore and Sabel, the 'first industrial divide' appeared at the early beginning of the twentieth century, coupling with the hegemony of mass production on craft production methods. And the 'second industrial divide' appeared pioneered with the non-specialist, highly flexible manufacturing and design, and the flexible work practices which favors small-scale production in 1970s.

The regulation approach, the third approach, was pioneered in France in 1970s. The important nuance of the framework that it provides the methodological tools to understand how capitalist system could survive in spite of all contradictions. In other words, the aim of the approach has been to build a methodology which could explain the paradoxes within capitalism based on the inherent tendency towards instability, crisis, and changes. For this, they have offered two key concepts, 'regime of accumulation' and 'mode of regulation', to be of use in explaining how to stabilize around a set of institutions, rules, norms, and habits that cause to secure a relatively long period of economic stability.

This thesis agrees with the critics on the neo-Schumpeterian approach as being much 'technology determinist' (Elam, 1990), on the flexible specialization approach as being too naïve (Amin, 1994), and on regulation approach as being much recondite (Cho, 1997). On the other hand, the detailed evaluation on the technological growth, socio-institutional structure, labour relation, institutional structure, and space that have been developed by these frameworks cannot be easily neglected.

Even though none of the approaches is able to define the debate on the transition to flexible production, it cannot be possible neither to produce mixed framework nor to ignore any of them. Indeed, each approach may explain at least one dimension of flexible production, but each is inadequate to offer complete power of understanding. On the other hand, we have to find the way to provide analytical tools to understand changes in the system. Despite its inadequacies, for this study, it can be said that the language of regulation theory is heuristically used in order to understand the changes in capitalist system with the emergence of flexible production. The regulation theory provides a useful framework in examining the mode of production, labour relations, public policies, technological changes and geography associated with historical periods of modern/historical capitalism. Furthermore, regulation theory enables us not to fall into mechanical explanations.

- The changes of the 'city' and the 'region' in transitional periods are the major focal

areas of the fourth chapter. It may be said that current changes in economic and urban structures are related to the emergence of flexible economies. Furthermore, the success of the new regime of accumulation tightly depends on the spatial patterns of the cities and the regions. Thus, the restructuring processes in the cities accompany with the restructuring in the world economy.

Within this chapter, it is revealed that Fordism and the city were interpreted as being perfectly determinants of each other. The effects of the Fordist regime, thus, on productive, social and economic structures are represented in the Fordist city as shaping polycentric large cities with suburbs that based on the economies of scale. On the other hand, the post-Fordist city has been discussed related with information technologies, deindustrialization, small-city economies and the like.

Another important debate areas of 'regional economies' and 'new industrial districts' are summarized with different views that concluded each locality might represent different results. The selected authors, Sabel (1989), Amin and Malmberg (1992), and Peck and Tickell (1994) arrived the very different results spatially and ideologically that none of them could be ignored.

Many geographers and planners have agreed with the Sabel's definition on the regions, where in Europe, East Asia, and America, as the emergence of "new economic unit" and "new doctrine of endogenous growth". Furthermore, Amin and Malmberg's claim that there exists "changing balance between local and global" may be taken into consideration for only thing emerging the project of "Europe of the Regions". On the other hand, when Peck and Tickell says there exists local and global (dis)order 'after Fordism', they touch on the negative points not only in political, but also spatial.

Due to the new mode of production and organizational changes, the 'new industrial districts', which based on not only the high-tech industries but also the craft production, have been unavoidably emerged. However, all assertions on 'new regions' and 'new industrial districts' are referred to specific localities. Thus, it is hard to define general facts. It may be said that this area could be defined only by means of the case studies.

- And finally, the fundamental statements and evaluations derived from the former chapters are explored in the case study on manufacturing industry in Turkey at the fifth chapter. The case study is underpinned by the understanding that Turkey could not be isolated from the flexible production and post-Fordism debates. In addition, the structure of the city and the region has been transformed by means of growing flexibility in the world, and Turkey has tried to be a partner within this system since 1980.

The period after 1980 is evaluated in detail because the changes in Turkey's economy systematically have been brought about since that time, which is called as the 'restructuring process' by many authors. The great depression in 1970s, in fact, which caused as being visible by the transformations in the world economy, evidently began to emphasize Turkish economy at the late of the 1970s. Thus, the "Stabilization and Structural Adjustment Program" (SSAP) was introduced in January 1980 against the background of a great deal of domestic political instability. SSAP led to radical transformation from import substitution under state direction towards export-oriented policies, which could cause the negligence in industrialization. This gave way to the transformation of not only the accumulation regime, but also the urban and regional structures. This thesis evaluated the fact that all restructuring processes partly concerned the aim of the integration to emerging necessity of flexibility. Thus, urban and regional structures in Turkey have been transformed since that time, too.

It may be considered as an inevitable process that the new regulation mechanisms identified different priorities with respect to the new regional structures and urbanization processes during the post-1980 period. Due to Turkey's efforts of integrate to the world economy, new spatial regulations have been emerged. Thus, the regional structure of the country has been unraveled and restructured. With this respect, the main urbanization trends and the changes in regional structure are evaluated in the case study

Firstly found that the disparities among the regions have been opened since 1980. This is evaluated with the fact that each geographical region concentrated certain sector(s) that can be interpreted as 'specialization' such as Marmara Region in 'manufacturing' and 'trade' industries; Aegean Region in 'manufacturing', 'trade', and 'transportation and communication' industries; Mediterranean Region in 'trade' and 'import duties' industries; Central Anatolia Region in 'electricity, gas, water' and 'import duties' industries, and so on. Thus it may be said that the regions those specialized in the sectors of 'industry' and 'trade' could have reached economically more developed level. Similarly, if the results of the shift share analyses are compared with the GDP values, it may be stated again that 'manufacturing' sector is the most efficient sector in order to develop regional economy.

Afterwards, the urbanization tendencies are analyzed by the use of demographic movements. Therefore, it was found that while metropoles pulled the population through its surrounding cities, several older centers – e.g. Adana and Samsun – lost their attraction features. In addition, it is seen that Antalya, İçel, Gaziantep, Urfa, Diyarbakır and Trabzon have protected their central positions during the 1990s. What's more, it may be confirmed

the Eraydın's (1992) assertion that the population changes of metropolitan cities after 1970 in relation to two factors: the first is the process of escaping from the centers, and the second is the process of directing the population movements by a foremost center. As a result of these factors, metropoles have not lost their importance, but some new urban centers have been emerged. It should be noted here that there are many external factors that have affected the population movements such as civil war, special governmental policies, short-term crisis and so on. The most evident results of them could be seen in East and Southeast Anatolia Regions that have had misleading growth rates.

Then, the shift-share analysis is implemented by the major cities in Turkey according to main sectors in order to search whether there exist 'specialization' processes and spatial disparities or not. As a consequence, it is seen that the disparities among Turkish provinces have been made in parallel to improvement of sectoral advantages in certain sector(s) as the like being among the regions.

According to analyses on major cities, there is a total growth relatively in the metropolises those having wide hinterlands. For example, İstanbul has been taken attention by its competitive advantages, investment possibilities and growth rates. Secondly, it can be seen that the rapid development is observed in the provinces those having the high growth rates and/or competition advantages in 'manufacturing industry'. And interestingly, inter-sectoral changes in Turkey's major cities have been made after 1980s that may be evaluated in relation to post-Fordist debates with *turning out the neo-Smithian economy*, pointed at by 'flexible specialization' approach.

In the following section, regional industrial development in Turkey is analyzed by using Eraydın's (1992) description of the 'region'. In this part, all the changes in firm structure, employment, value-added, produced value-added per worker, and labour wages are analyzed. All variables are evaluated by the classification as 'public' or 'private' sectors. These analyses provide lots of important results about industrial agglomeration centers. For example, İstanbul Region is still the most powerful attraction center, and İzmir Region have protected its foremost role. On the other hand, Adana Region has evidently lost its attraction feature. Similarly, region centers, e.g. Kayseri, Samsun, Konya, Eskişehir and so on, has faced the economic recession that may be a result of dragged the public sector from production areas in relation to the loosing efficiency of Keynesian politics in the world. Finally, it should be said that in 1990s, a trend such fragmentation of firms due to the dissolution/downfall in scale economies and production in smaller units has been effective in Turkey. Thus, the number of total firms has obviously increased. This is

appropriate to the expected results of flexible transformations

At the last section of the case study, the assertions that occurred (or just claimed) through flexible production are analyzed used by Turkey's provinces as the unit. These assertions derived from previous chapters and the studies on flexibility, especially of Eraydın (1992) and Sforzi (1988). Afterwards, the provinces are graded. The final results are – again – compared with the results of the shift-share analyses. Eventually, it was fixed that the provinces having much potentials through flexible transformations are not different from the agglomeration centers, which were shaped in the pre-1980 period. In addition to this fact, it is highlighted that the importance of urban scale economies still remains in some major cities. What's more, it may be said that the provinces replacing surroundings of the metropoles have high potentials that means they try to integrate to world economy using by the advantages of neighboring metropoles.

To conclude in a few words, it may be stated that this thesis has provided the coherency of the theoretical evaluations and empirical findings. That the approaches to flexible production offer probabilities has been justified by the Turkish case concerned in this thesis. Moreover, it may be explained by the case study that the urban and regional structures of Turkey cannot be regarded as excluded from these processes. The thesis has tried to identify the Turkey's potentials, possibilities and realities in relation to the flexible production, and hence provide directions for further research within the debate.

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APPENDICES

Appendix A. Developing countries and territories by income group: Classification system of the organization for economic cooperation and development

LICs: 61 Low-income Countries	MICs: 73 Middle-income Countries
Afghanistan (AS)*	Bahamas (LA)
Angola (AF)	Bahrain (ME)
Bangladesh (AS)*	Barbados (LA)
Benin (AF)*	Belize (LA)
Bhutan (AS)*	Bermuda (LA)
Bolivia (LA)	Botswana (AF)
Burkina Faso (AF)*	Brunei (AS)
Burundi (AF)*	Chile (LA)
Cape Verde (LA)*	Colombia (LA)
Central African Republic (AF)*	Congo (AF)
Chad (AF)*	Cook Island (AS)
China (AS)	Costa Rica (LA)
Comoros (AF)*	Cuba (LA)
Djibouti (AF)	Cyprus (ME)
Egypt (AF/ME)	Dominican Republic (LA)
El Salvador (LA)	Falkland Island (LA)
Equatorial Guinea (AF)	Fiji (AS)
Ethiopia (AF)*	Gibraltar (ME)
Gambia (AF)*	Guadeloupe (LA)
Ghana (AF)	Guatemala (LA)
Guinea (AF)*	Guiana, French (LA)
Guinea-Bissau (AF)*	Guyana (LA)
Haiti (LA)*	Israel (ME)
Honduras (LA)	Ivory Coast (AF)
India (AS)	Jamaica ((LA)
Kampuchea (AS)	Jordan (ME)
Kenya (AF)	Kiribati (AS)
Laos (AS)*	Lebanon (ME)
Lesotho (AF)*	Macao (AS)
Liberia (AF)	Malaysia (AS)
Madagascar (AF)	Malta (ME)
Malawi (AF)*	Martinique (LA)
Maldives (AS)*	Mauritius (AF)
Mali (AF)*	Morocco (AF)
Mauritania (AF)	Nauru (AS)
Mayotte (AF)	Netherlands Antilles (AS)
Mozambique (AF)	New Caledonia (AS)
Myanmor (AS)	Nicaragua (LA)
Nepal (AS)*	Niue (AS)
Niger (AF)*	Oman (ME)
Pakistan (AS)	Pacific Islands (U.S.) (AS)
Rwanda (AF)*	Panama (LA)
Saint Helena (LA)	Papua New Guinea (AS)
Sao Tomé and Principe (AF)	Paraguay (LA)
Senegal (AF)	Peru (LA)
Sierra Leone (AF)	Philippines (AS)
Solomon Islands (Br.) (AS)	Polynesia, French (AS)
Somalia (AF)*	Reunion (AF)
Sri Lanka (AS)	Saint-Pierre and Miquelon (LA)
Sudan (AF)*	Seychelles (AF)
Tanzania (AF)*	Surinam (LA)
Togo (AF)	Swaziland (AF)
Tokelau Islands (AS)	Syria (ME)
Tonga (AS)	Thailand (AS)
Tuvalu (AS)	Trinidad and Tobago (LA)

Uganda (AF)*	Tunisia (AF)
Vanuatu (AS)	TURKEY (E)
Vietnam (AS)	Uruguay (LA)
Yemen (ME)*	Wallis and Futuna Islands (AS)
Zaire (AF)	Western Samoa /AS)
Zambia (AF)	West Indies (LA)
	Zimbabwe (AF)
NICs: 11 Newly Industrializing Countries	**OPEC: 13 Organization of Petroleum Exporting Countries**
Argentina (LA)	Algeria (AF)
Brazil (LA)	Ecuador (LA)
Greece (E)	Gabon (AF)
Hong Kong (AS)	Indonesia (AS)
Mexico (LA)	Iran (ME)
Portugal (E)	Iraq (ME)
Singapore (AS)	Kuwait (ME)
South Korea (AS)	Libya (AF)
Spain (E)	Nigeria (AF)
Taiwan (AS)	Qatar (ME)
Yugoslavia (E)	Saudi Arabia (ME)
	United Arab Emirates (ME)
	Venezuela (LA)

Source: Todaro, 1994: 29-0
* LLDCs (29 least-developed countries)

NOTE: AF = Africa (and offshore islands); AS = Asia (including the Pacific); LA = Latin America (including the Caribbean); ME = Middle East; E = Europe.

Appendix B. Distribution of population by provinces 1990-2000 (Ordered in row by urban growth rate)

PROVINCES	1990 TOTAL	1990 URBAN	2000 TOTAL	2000 URBAN	Annual Growth Rate TOTAL	Annual Growth Rate URBAN
01. Hakkari	172 479	71 522	236 581	139 455	31,59	66,76
02. Van	637 433	262 562	877 524	446 976	31,96	53,19
03. Şırnak	262 006	125 264	353 197	211 328	29,86	52,28
04. Ağrı	437 093	158 758	528 744	252 309	19,03	46,31
05. Mardin	558 275	249 032	705 098	391 249	23,34	45,16
06. Batman	344 121	194 664	456 734	304 166	28,30	44,62
07. Antalya	1 132 211	602 194	1 719 751	936 330	41,79	44,13
08. Muş	376 543	103 089	453 654	159 503	18,63	43,64
09. Rize	348 776	134 082	365 938	205 245	4,80	42,56
10. Tekirdağ	468 842	258 440	623 591	395 377	28,52	42,51
11. Şanlıurfa	1 001 455	551 614	1 443 422	842 129	36,55	42,30
12. Adıyaman	510 827	222 102	623 811	338 939	19,98	42,26
13. Bitlis	330 115	144 029	388 678	219 511	16,33	42,13
14. Yozgat	578 719	209 947	682 919	315 156	16,55	40,61
15. Iğdır	142 601	55 547	168 634	81 582	16,76	38,43
16. Trabzon	795 849	331 321	975 137	478 954	20,31	36,84
17. Bingöl	249 074	86 648	253 739	123 470	1,86	35,40
18. Bursa	1 596 161	1 153 007	2 125 140	1 630 940	28,62	34,67
19. Erzurum	848 201	400 983	937 389	560 551	10,00	33,49
20. Siirt	243 435	110 221	263 676	153 522	7,98	33,13
21. Aksaray	330 569	144 217	396 084	200 216	18,08	32,80
22. Bilecik	175 797	90 471	194 326	124 380	10,02	31,82
23. Diyarbakır	1 096 447	595 440	1 362 708	817 692	21,73	31,71
24. Gaziantep	1 010 396	738 245	1 285 249	1 009 126	24,05	31,25
25. Çankırı	249 344	104 132	270 355	141 186	8,09	30,43
26. Muğla	562 809	198 080	715 328	268 341	23,97	30,35
27. Malatya	704 359	369 243	853 658	499 713	19,22	30,25
28. Konya	1 752 658	963 128	2 192 166	1 294 817	22,37	29,59
29. İstanbul	7 195 773	6 779 594	10 018 735	9 085 599	33,09	29,27
30. Elazığ	498 225	274 045	569 616	364 274	13,39	28,45
31. Bolu	262 919	107 551	270 654	142 685	2,90	28,26
32. Karaman	215 181	106 051	243 210	139 912	12,24	27,70
33. Kahramanmaraş	894 264	407 215	1 002 384	536 007	11,41	27,47
34. Isparta	434 771	229 796	513 681	301 561	16,67	27,17
35. Osmaniye	384 104	237 847	458 782	311 994	17,76	27,13
36. Kütahya	577 905	243 151	656 903	318 869	12,81	27,10
37. Niğde	301 691	97 286	348 081	126 812	14,30	26,50
38. Gümüşhane	168 845	59 551	186 953	77 570	10,18	26,43
39. Tokat	718 738	308 999	828 027	401 762	14,15	26,24
40. Aydın	824 816	384 711	950 757	493 114	14,21	24,82
41. Çanakkale	432 263	168 629	464 975	215 571	7,29	24,55
42. İzmir	2 694 770	2 137 721	3 370 866	2 732 669	22,38	24,55
43. Artvin	212 833	66 097	191 934	84 198	-10,33	24,20
44. İçel	1 267 253	788 576	1 651 400	999 220	26,47	23,67
45. Giresun	499 617	223 678	523 819	283 316	4,73	23,63

46.	Kırklareli	309 512	149 532	328 461	189 202	5,94	23,52
47.	Ankara	3 236 378	2 836 802	4 007 860	3 540 522	21,37	22,15
48.	Kocaeli	920 255	579 681	1 206 085	722 905	27,04	22,07
49.	Adana	1 549 233	1 125 149	1 849 478	1 397 853	17,71	21,70
50.	Uşak	290 398	146 809	322 313	182 040	10,42	21,50
51.	Düzce	273 679	105 834	314 266	130 632	13,82	21,05
52.	Balıkesir	974 274	468 758	1 076 347	577 595	9,96	20,87
53.	Denizli	750 882	337 416	850 029	413 914	12,40	20,43
54.	Çorum	608 660	254 272	597 065	311 897	-1,92	20,42
55.	Afyon	738 979	306 209	812 416	371 868	9,47	19,42
56.	Amasya	359 265	162 343	365 231	196 621	1,65	19,15
57.	Manisa	1 154 418	590 374	1 260 169	714 760	8,76	19,11
58.	Nevşehir	289 509	112 955	309 914	136 523	6,81	18,95
59.	Kayseri	944 091	606 001	1 060 432	732 354	11,62	18,93
60.	Samsun	1 161 207	527 362	1 209 137	635 254	4,04	18,61
61.	Ordu	826 886	348 028	887 765	416 631	7,10	17,99
62.	Erzincan	299 251	144 144	316 841	172 206	5,71	17,78
63.	Kırıkkale	350 360	243 378	383 508	285 294	9,04	15,89
64.	Sinop	265 153	86 441	225 574	101 285	-16,16	15,84
65.	Kastamonu	423 206	148 861	375 476	174 020	-11,96	15,61
66.	Ardahan	163 731	34 038	133 756	39 725	-20,22	15,45
67.	Eskişehir	641 301	477 436	706 009	557 028	9,61	15,41
68.	Kırşehir	256 684	126 745	253 239	147 412	-1,35	15,10
69.	Sakarya	683 281	404 742	756 168	459 824	10,13	12,76
70.	Yalova	135 121	87 032	168 593	98 661	22,13	12,54
71.	Bartın	205 834	43 662	184 178	48 002	-11,11	9,47
72.	Edirne	404 599	210 421	402 606	230 908	-0,49	9,29
73.	Sivas	766 821	384 832	755 091	421 804	-1,54	9,17
74.	Hatay	1 109 754	531 707	1 253 726	581 341	12,19	8,92
75.	Kars	355 823	130 391	325 016	142 145	-9,05	8,63
76.	Burdur	254 899	129 112	256 803	139 897	0,74	8,02
77.	Tunceli	133 584	50 799	93 584	54 476	-35,58	6,99
78.	Zonguldak	653 739	235 546	615 599	250 282	-6,01	6,07
79.	Karabük	244 177	152 469	225 102	157 756	-8,13	3,41
80.	Bayburt	107 330	41 295	97 358	41 356	-9,75	0,15
81.	Kilis	130 198	87 219	114 724	74 985	-12,65	-15,11
	TOTAL	56 473 035	33 656 275	67 803 927	44 006 274	18,28	26,81

Source: SIS, 2001 (www.die.gov.tr)

Appendix C. International standard industrial classification of manufacturing industry – second revision -

3	MANUFACTURING INDUSTRY
31	Manufacture of food, beverages, and tobacco
32	Textile, wearing apparel, and leather industries
33	Manufacture of wood, and wood products including furnish
34	Manufacture of paper of paper products, printing and publishing
35	Manufacture of chemicals and of chemical petroleum, coal, rubber, and plastic products
36	Manufacture of non-metallic mineral products except products of petroleum and cool
37	Basic metal industries
38	Manufacture of fabricated metal products, machinery and equipment, transport equipment, professional and scientific and measuring and controlling equipment
39	Other manufacturing industries

Source: SIS, 1996: 40-3; Genel Sanayi ve İşyerleri Sayımı: Kapsam ve Yöntem

Appendix D. The results of the shift share analysis by provinces according to employment, 1980-1990-1999

PROVINCES	SECTOR	1980	1990	gij	rbj	kij	cij
ADANA	38	1.319	2.821	224,23	0,48	413,16	864,61
ADANA	36	1.309	1.433	222,53	0,38	268,77	-367,30
ADANA	35	3.135	6.455	532,95	0,43	800,36	1.986,69
ADANA	34	182	0	30,94	0,69	94,09	-307,03
ADANA	33	415	241	70,55	0,24	29,27	-273,82
ADANA	32	23.534	19.719	4000,78	0,77	14.031,64	-21.847,42
ADANA	31	3.271	4.444	556,07	0,47	995,70	-378,77
ADANA	3	33.283	35.455	5658,11	0,55	12.594,78	-16.080,89
AFYON	36	198	1.677	33,66	0,38	40,65	1.404,69
AFYON	35	363	678	61,71	0,43	92,67	160,62
AFYON	31	403	830	68,51	0,47	122,67	235,82
AFYON	3	1.103	3.619	187,51	0,55	417,39	1.911,10
AFYON	38	0	225	0	0,48	0,00	0,00
AĞRI	3	50	0	8,5	0,55	18,92	-77,42
AMASYA	31	394	1.341	66,98	0,47	119,93	760,09
AMASYA	3	554	1.578	94,18	0,55	209,64	720,18
AMASYA	38	0	32	0	0,48	0,00	0,00
AMASYA	36	0	205	0	0,38	0,00	0,00
ANKARA	38	6.808	15.434	1157,36	0,48	2.132,53	5.336,11
ANKARA	37	977	1.673	166,09	0,45	272,47	257,44
ANKARA	36	1.665	2.123	283,05	0,38	341,86	-166,91
ANKARA	35	661	732	112,37	0,43	168,75	-210,12
ANKARA	34	911	1.098	154,87	0,69	470,97	-438,84
ANKARA	33	624	1.495	106,08	0,24	44,01	720,91
ANKARA	31	5.467	5.329	929,39	0,47	1.664,16	-2.731,55
ANKARA	3	17.591	30.598	2990,47	0,55	6.656,69	3.359,84
ANTALYA	38	66	0	11,22	0,48	20,67	-97,89
ANTALYA	35	113	113	19,21	0,43	28,85	-48,06
ANTALYA	32	2.038	2.286	346,46	0,77	1.215,11	-1.313,57
ANTALYA	31	939	1.121	159,63	0,47	285,83	-263,46
ANTALYA	3	3.303	3.799	561,51	0,55	1.249,90	-1.315,41
ANTALYA	36	0	165	0	0,38	0,00	0,00
ARTVİN	3	48	0	8,16	0,55	18,16	-74,32
AYDIN	38	220	746	37,4	0,48	68,91	419,69
AYDIN	36	362	850	61,54	0,38	74,33	352,13
AYDIN	35	79	76	13,43	0,43	20,17	-36,60
AYDIN	32	3.262	3.481	554,54	0,77	1.944,90	-2.280,44
AYDIN	31	397	574	67,49	0,47	120,85	-11,34
AYDIN	3	4.386	5.976	745,62	0,55	1.659,73	-815,35
BALIKESİR	38	491	831	83,47	0,48	153,80	102,73
BALIKESİR	37	117	0	19,89	0,45	32,63	-169,52
BALIKESİR	35	598	945	101,66	0,43	152,67	92,67
BALIKESİR	32	1.121	750	190,57	0,77	668,37	-1.229,94
BALIKESİR	31	1.294	2.750	219,98	0,47	393,89	842,13
BALIKESİR	3	3.779	5.846	642,43	0,55	1.430,03	-5,46
BALIKESİR	36	0	497	0	0,38	0,00	0,00
BİLECİK	38	619	4.693	105,23	0,48	193,89	3.774,88
BİLECİK	36	321	4.184	54,57	0,38	65,91	3.742,52

BİLECİK	32	242	0	41,14	0,77	144,29	-427,43
BİLECİK	31	144	135	24,48	0,47	43,83	-77,31
BİLECİK	3	1.638	10.693	278,46	0,55	619,84	8.156,70
BİLECİK	37	0	719	0	0,45	0,00	0,00
BOLU	38	701	1.320	119,17	0,48	219,58	280,25
BOLU	36	486	1.285	82,62	0,38	99,79	616,59
BOLU	35	268	635	45,56	0,43	68,42	253,02
BOLU	33	813	2.272	138,21	0,24	57,34	1.263,45
BOLU	31	636	2.012	108,12	0,47	193,60	1.074,28
BOLU	3	2.943	8.124	500,31	0,55	1.113,67	3.567,02
BURDUR	36	196	328	33,32	0,38	40,24	58,44
BURDUR	31	154	191	26,18	0,47	46,88	-36,06
BURDUR	3	611	1.073	103,87	0,55	231,21	126,92
BURDUR	38	0	239	0	0,48	0,00	0,00
BURDUR	33	0	129	0	0,24	0,00	0,00
BURDUR	32	0	186	0	0,77	0,00	0,00
BURSA	38	9.809	19.976	1667,53	0,48	3.072,55	5.426,92
BURSA	37	900	0	153	0,45	251,00	-1.304,00
BURSA	36	1.170	1.329	198,9	0,38	240,23	-280,13
BURSA	35	1.285	2.468	218,45	0,43	328,06	636,49
BURSA	33	465	828	79,05	0,24	32,79	251,16
BURSA	32	12.831	31.213	2181,27	0,77	7.650,21	8.550,52
BURSA	31	2.331	7.354	396,27	0,47	709,56	3.917,17
BURSA	3	28.936	64.237	4919,12	0,55	10.949,81	19.432,07
BURSA	34	0	411	0	0,69	0,00	0,00
ÇANAKKALE	36	3.550	4.204	603,5	0,38	728,89	-678,39
ÇANAKKALE	31	1.103	2.239	187,51	0,47	335,75	612,74
ÇANAKKALE	3	4.712	6.521	801,04	0,55	1.783,09	-775,13
ÇANKIRI	3	101	353	17,17	0,55	38,22	196,61
ÇORUM	38	80	292	13,6	0,48	25,06	173,34
ÇORUM	36	1.012	2.086	172,04	0,38	207,78	694,18
ÇORUM	31	233	330	39,61	0,47	70,93	-13,54
ÇORUM	3	1.376	3.183	233,92	0,55	520,70	1.052,38
DENİZLİ	38	1.465	1.674	249,05	0,48	458,89	-498,94
DENİZLİ	37	473	861	80,41	0,45	131,91	175,68
DENİZLİ	36	197	121	33,49	0,38	40,45	-149,94
DENİZLİ	35	445	328	75,65	0,43	113,61	-306,26
DENİZLİ	33	182	228	30,94	0,24	12,84	2,22
DENİZLİ	32	2.579	5.798	438,43	0,77	1.537,67	1.242,90
DENİZLİ	31	526	441	89,42	0,47	160,11	-334,53
DENİZLİ	3	6.062	9.999	1030,54	0,55	2.293,95	612,51
DİYARBAKIR	31	42	101	7,14	0,47	12,78	39,08
DİYARBAKIR	3	134	224	22,78	0,55	50,71	16,51
EDİRNE	32	1.473	2.611	250,41	0,77	878,24	9,35
EDİRNE	31	1.052	1.414	178,84	0,47	320,23	-137,07
EDİRNE	3	2.773	4.653	471,41	0,55	1.049,34	359,25
EDİRNE	36	0	233	0	0,38	0,00	0,00
ELAZIĞ	38	48	86	8,16	0,48	15,04	14,80
ELAZIĞ	36	327	594	55,59	0,38	67,14	144,27
ELAZIĞ	31	129	568	21,93	0,47	39,27	377,80
ELAZIĞ	3	1.066	1.586	181,22	0,55	403,39	-64,61
ERZİNCAN	38	73	0	12,41	0,48	22,87	-108,28

ERZİNCAN	31	218	140	37,06	0,47	66,36	-181,42
ERZİNCAN	3	441	606	74,97	0,55	166,88	-76,85
ERZİNCAN	36	0	259	0	0,38	0,00	0,00
ERZURUM	38	54	0	9,18	0,48	16,91	-80,09
ERZURUM	31	301	376	51,17	0,47	91,62	-67,79
ERZURUM	3	490	471	83,3	0,55	185,42	-287,72
ESKİŞEHİR	38	817	4.031	138,89	0,48	255,92	2.819,19
ESKİŞEHİR	37	253	1.021	43,01	0,45	70,56	654,43
ESKİŞEHİR	36	2.195	1.889	373,15	0,38	450,68	-1.129,83
ESKİŞEHİR	33	154	273	26,18	0,24	10,86	81,96
ESKİŞEHİR	32	291	1.558	49,47	0,77	173,50	1.044,03
ESKİŞEHİR	31	2.393	2.637	406,81	0,47	728,43	-891,24
ESKİŞEHİR	3	6.257	11.680	1063,69	0,55	2.367,74	1.991,57
GAZİANTEP	38	379	404	64,43	0,48	118,72	-158,15
GAZİANTEP	37	39	108	6,63	0,45	10,88	51,49
GAZİANTEP	35	714	756	121,38	0,43	182,28	-261,66
GAZİANTEP	34	99	191	16,83	0,69	51,18	23,99
GAZİANTEP	32	3.634	8.878	617,78	0,77	2.166,69	2.459,53
GAZİANTEP	31	502	1.151	85,34	0,47	152,81	410,85
GAZİANTEP	3	5.650	11.812	960,5	0,55	2.138,04	3.063,46
GİRESUN	31	1.673	1.350	284,41	0,47	509,26	-1.116,67
GİRESUN	3	1.777	1.585	302,09	0,55	672,44	-1.166,53
GÜMÜŞHANE	3	0	139	0	0,55	0,00	0,00
HATAY	38	516	1.195	87,72	0,48	161,63	429,65
HATAY	36	126	139	21,42	0,38	25,87	-34,29
HATAY	35	511	459	86,87	0,43	130,46	-269,33
HATAY	33	68	0	11,56	0,24	4,80	-84,36
HATAY	32	1.541	740	261,97	0,77	918,79	-1.981,76
HATAY	31	577	432	98,09	0,47	175,64	-418,73
HATAY	3	3.339	4.151	567,63	0,55	1.263,53	-1.019,16
HATAY	37	0	1.113	0	0,45	0,00	0,00
İÇEL	38	819	1.090	139,23	0,48	256,54	-124,77
İÇEL	36	1.997	2.250	339,49	0,38	410,03	-496,52
İÇEL	35	1.789	2.452	304,13	0,43	456,73	-97,86
İÇEL	33	158	0	26,86	0,24	11,14	-196,00
İÇEL	32	6.257	4.922	1063,69	0,77	3.730,60	-6.129,29
İÇEL	31	808	818	137,36	0,47	245,96	-373,32
İÇEL	3	11.828	11.710	2010,76	0,55	4.475,89	-6.604,65
ISPARTA	33	440	380	74,8	0,24	31,03	-165,83
ISPARTA	32	612	1.013	104,04	0,77	364,89	-67,93
ISPARTA	31	494	324	83,98	0,47	150,37	-404,35
ISPARTA	3	2.074	2.752	352,58	0,55	784,83	-459,41
ISPARTA	35	0	443	0	0,43	0,00	0,00
İSTANBUL	39	2.443	4.285	415,31	0,53	890,75	535,94
İSTANBUL	38	70.984	80.851	12067,28	0,48	22.234,91	-24.435,19
İSTANBUL	37	11.015	11.826	1872,55	0,45	3.071,95	-4.133,50
İSTANBUL	36	13.493	12.600	2293,81	0,38	2.770,40	-5.957,21
İSTANBUL	35	26.657	34.974	4531,69	0,43	6.805,48	-3.020,17
İSTANBUL	34	8.239	12.756	1400,63	0,69	4.259,37	-1.143,00
İSTANBUL	33	4.387	3.279	745,79	0,24	309,38	-2.163,17
İSTANBUL	32	59.258	116.279	10073,86	0,77	35.331,30	11.615,84
İSTANBUL	31	15.205	17.825	2584,85	0,47	4.628,41	-4.593,26

İSTANBUL	3	211.681	294.675	35985,77	0,55	80.103,22	-33.094,99
İZMİR	39	397	285	67,49	0,53	144,75	-324,24
İZMİR	38	11.668	15.381	1983,56	0,48	3.654,86	-1.925,42
İZMİR	37	2.299	3.590	390,83	0,45	641,16	259,01
İZMİR	36	2.958	3.875	502,86	0,38	607,34	-193,20
İZMİR	35	4.295	5.180	730,15	0,43	1.096,51	-941,66
İZMİR	34	1.511	2.633	256,87	0,69	781,15	83,98
İZMİR	33	764	781	129,88	0,24	53,88	-166,76
İZMİR	32	11.078	22.119	1883,26	0,77	6.605,02	2.552,72
İZMİR	31	16.017	20.492	2722,89	0,47	4.875,59	-3.123,48
İZMİR	3	50.987	74.336	8667,79	0,55	19.294,23	-4.613,02
K.MARAŞ	37	33	0	5,61	0,45	9,20	-47,81
K.MARAŞ	31	152	323	25,84	0,47	46,27	98,89
K.MARAŞ	3	679	2.395	115,43	0,55	256,94	1.343,63
K.MARAŞ	38	0	157	0	0,48	0,00	0,00
K.MARAŞ	32	0	1.704	0	0,77	0,00	0,00
KARS	31	120	83	20,4	0,47	36,53	-93,93
KARS	3	120	83	20,4	0,55	45,41	-102,81
KASTAMONU	33	529	501	89,93	0,24	37,31	-155,24
KASTAMONU	31	52	67	8,84	0,47	15,83	-9,67
KASTAMONU	3	745	1.055	126,65	0,55	281,92	-98,57
KASTAMONU	36	0	309	0	0,38	0,00	0,00
KASTAMONU	32	0	121	0	0,77	0,00	0,00
KAYSERİ	38	1.759	3.382	299,03	0,48	550,99	772,98
KAYSERİ	37	1.077	488	183,09	0,45	300,36	-1.072,45
KAYSERİ	35	181	0	30,77	0,43	46,21	-257,98
KAYSERİ	33	38	0	6,46	0,24	2,68	-47,14
KAYSERİ	32	6.139	7.479	1043,63	0,77	3.660,25	-3.363,88
KAYSERİ	31	885	2.950	150,45	0,47	269,39	1.645,16
KAYSERİ	3	10.205	14.771	1734,85	0,55	3.861,72	-1.030,57
KIRKLARELİ	38	48	522	8,16	0,48	15,04	450,80
KIRKLARELİ	31	978	775	166,26	0,47	297,70	-666,96
KIRKLARELİ	3	1.098	6.060	186,66	0,55	415,50	4.359,84
KIRKLARELİ	36	0	2.624	0	0,38	0,00	0,00
KIRKLARELİ	32	0	1.422	0	0,77	0,00	0,00
KIRŞEHİR	3	152	875	25,84	0,55	57,52	639,64
KOCAELİ	38	9.421	12.486	1601,57	0,48	2.951,02	-1.487,59
KOCAELİ	37	5.254	9.227	893,18	0,45	1.465,28	1.614,54
KOCAELİ	36	3.431	4.856	583,27	0,38	704,46	137,27
KOCAELİ	35	8.076	14.012	1372,92	0,43	2.061,79	2.501,29
KOCAELİ	34	1.244	1.192	211,48	0,69	643,12	-906,60
KOCAELİ	32	1.209	0	205,53	0,77	720,84	-2.135,37
KOCAELİ	31	1.284	1.302	218,28	0,47	390,85	-591,13
KOCAELİ	3	30.351	46.708	5159,67	0,55	11.485,27	-287,94
KOCAELİ	33	0	696	0	0,24	0,00	0,00
KONYA	38	907	1.957	154,19	0,48	284,11	611,70
KONYA	37	202	354	34,34	0,45	56,34	61,32
KONYA	36	684	528	116,28	0,38	140,44	-412,72
KONYA	35	321	235	54,57	0,43	81,95	-222,52
KONYA	32	510	0	86,7	0,77	304,08	-900,78
KONYA	31	1.938	3.514	329,46	0,47	589,93	656,61
KONYA	3	4.664	7.156	792,88	0,55	1.764,93	-65,81

KONYA	34	0	455	0	0,69	0,00	0,00
KÜTAHYA	36	1.081	2.144	183,77	0,38	221,95	657,28
KÜTAHYA	33	412	304	70,04	0,24	29,06	-207,10
KÜTAHYA	31	127	798	21,59	0,47	38,66	610,75
KÜTAHYA	3	2.154	3.997	366,18	0,55	815,11	661,71
KÜTAHYA	35	0	181	0	0,43	0,00	0,00
KÜTAHYA	32	0	570	0	0,77	0,00	0,00
MALATYA	36	58	0	9,86	0,38	11,91	-79,77
MALATYA	32	407	1.163	69,19	0,77	242,66	444,15
MALATYA	31	138	76	23,46	0,47	42,01	-127,47
MALATYA	3	720	1.449	122,4	0,55	272,46	334,14
MANİSA	38	654	5.977	111,18	0,48	204,86	5.006,96
MANİSA	36	4.397	4.030	747,49	0,38	902,80	-2.017,29
MANİSA	35	239	2.234	40,63	0,43	61,02	1.893,35
MANİSA	32	1.875	4.350	318,75	0,77	1.117,93	1.038,32
MANİSA	31	907	1.935	154,19	0,47	276,09	597,72
MANİSA	3	8.339	19.200	1417,63	0,55	3.155,60	6.287,77
MANİSA	37	0	184	0	0,45	0,00	0,00
MUĞLA	33	59	83	10,03	0,24	4,16	9,81
MUĞLA	32	279	127	47,43	0,77	166,35	-365,78
MUĞLA	31	42	0	7,14	0,47	12,78	-61,92
MUĞLA	3	486	500	82,62	0,55	183,91	-252,53
NEVŞEHİR	38	31	0	5,27	0,48	9,71	-45,98
NEVŞEHİR	36	111	528	18,87	0,38	22,79	375,34
NEVŞEHİR	31	405	420	68,85	0,47	123,28	-177,13
NEVŞEHİR	3	769	1.157	130,73	0,55	291,00	-33,73
NİĞDE	3	1.431	1.959	243,27	0,55	541,51	-256,78
ORDU	31	2.089	2.824	355,13	0,47	635,89	-256,02
ORDU	3	2.760	3.443	469,2	0,55	1.044,42	-830,62
ORDU	35	0	72	0	0,43	0,00	0,00
RİZE	3	232	2.396	39,44	0,55	87,79	2.036,77
SAKARYA	38	251	2.489	42,67	0,48	78,62	2.116,71
SAKARYA	35	1.336	335	227,12	0,43	341,08	-1.569,20
SAKARYA	33	651	490	110,67	0,24	45,91	-317,58
SAKARYA	31	807	1.914	137,19	0,47	245,65	724,16
SAKARYA	3	3.388	5.727	575,96	0,55	1.282,07	480,97
SAKARYA	36	0	215	0	0,38	0,00	0,00
SAMSUN	38	351	343	59,67	0,48	109,95	-177,62
SAMSUN	36	232	478	39,44	0,38	47,63	158,93
SAMSUN	35	515	763	87,55	0,43	131,48	28,97
SAMSUN	32	194	497	32,98	0,77	115,67	154,35
SAMSUN	31	760	1.122	129,2	0,47	231,34	1,46
SAMSUN	3	2.178	3.875	370,26	0,55	824,19	502,55
SAMSUN	37	0	339	0	0,45	0,00	0,00
SAMSUN	33	0	333	0	0,24	0,00	0,00
SİNOP	36	476	1.244	80,92	0,38	97,73	589,35
SİNOP	3	633	1.797	107,61	0,55	239,54	816,85
SİVAS	31	293	160	49,81	0,47	89,19	-272,00
SİVAS	3	471	324	80,07	0,55	178,23	-405,30
ŞANLIURFA	3	470	518	79,9	0,55	177,85	-209,75
TEKİRDAĞ	38	3.639	5.579	618,63	0,48	1.139,87	181,50
TEKİRDAĞ	36	347	1.094	58,99	0,38	71,25	616,76

TEKİRDAĞ	35	246	0	41,82	0,43	62,80	-350,62
TEKİRDAĞ	32	3.338	11.739	567,46	0,77	1.990,21	5.843,33
TEKİRDAĞ	31	1.517	2.466	257,89	0,47	461,78	229,33
TEKİRDAĞ	3	9.308	21.995	1582,36	0,55	3.522,28	7.582,36
TEKİRDAĞ	34	0	591	0	0,69	0,00	0,00
TEKİRDAĞ	33	0	317	0	0,24	0,00	0,00
TOKAT	36	627	693	106,59	0,38	128,74	-169,33
TOKAT	31	296	636	50,32	0,47	90,10	199,58
TOKAT	3	1.173	1.757	199,41	0,55	443,88	-59,29
TOKAT	33	0	137	0	0,24	0,00	0,00
TRABZON	38	168	213	28,56	0,48	52,62	-36,18
TRABZON	37	63	180	10,71	0,45	17,57	88,72
TRABZON	36	225	0	38,25	0,38	46,20	-309,45
TRABZON	35	232	92	39,44	0,43	59,23	-238,67
TRABZON	31	927	992	157,59	0,47	282,18	-374,77
TRABZON	3	1.695	1.774	288,15	0,55	641,41	-850,56
UŞAK	38	68	0	11,56	0,48	21,30	-100,86
UŞAK	36	372	367	63,24	0,38	76,38	-144,62
UŞAK	32	1.439	2.602	244,63	0,77	857,97	60,40
UŞAK	31	144	0	24,48	0,47	43,83	-212,31
UŞAK	3	2.067	3.052	351,39	0,55	782,18	-148,57
VAN	3	267	56	45,39	0,55	101,04	-357,43
VAN	31	267	56	45,39	0,47	81,28	-337,67
YOZGAT	36	373	0	63,41	0,38	76,58	-512,99
YOZGAT	31	40	253	6,8	0,47	12,18	194,02
YOZGAT	3	557	907	94,69	0,55	210,78	44,53
ZONGULDAK	38	119	0	20,23	0,48	37,28	-176,51
ZONGULDAK	37	1.430	1.584	243,1	0,45	398,81	-487,91
ZONGULDAK	36	803	912	136,51	0,38	164,87	-192,38
ZONGULDAK	31	565	523	96,05	0,47	171,99	-310,04
ZONGULDAK	3	3.185	3.493	541,45	0,55	1.205,25	-1.438,70
TURKEY	39	3.077	4.722	523,09			
TURKEY	38	125.524	186.182	21339,08			
TURKEY	37	24.632	35.689	4187,44			
TURKEY	36	47.514	65.347	8077,38			
TURKEY	35	53.158	75.766	9036,86			
TURKEY	34	13.622	22.980	2315,74			
TURKEY	33	11.475	14.235	1950,75			
TURKEY	32	148.829	262.866	25300,93			
TURKEY	31	71.975	106.120	12235,75			
TURKEY	3	499.806	773.907	84967,02			

PROVINCES	SECTOR	1990	1999	gij	rbj	kij	cij
ADANA	38	2821	3542	338,52	0,25	369,84	12,64
ADANA	36	1433	1009	171,96	0,16	53,49	-649,45
ADANA	35	6455	5217	774,60	0,17	346,76	-2.359,36
ADANA	33	241	267	28,92	0,81	165,15	-168,07
ADANA	32	19719	15273	2.366,28	0,37	4.882,38	-11.694,66
ADANA	31	4444	3418	533,28	0,16	191,57	-1.750,85
ADANA	3	35455	29511	4.254,60	0,26	5.119,79	-15.318,39
ADANA	37	0	315	0,00	0,12	0,00	0,00
ADANA	34	0	470	0,00	0,08	0,00	0,00
ADIYAMAN	3	111	688	13,32	0,26	16,03	547,65
AFYON	38	225	529	27,00	0,25	29,50	247,50
AFYON	36	1677	1686	201,24	0,16	62,60	-254,84
AFYON	35	678	246	81,36	0,17	36,42	-549,78
AFYON	31	830	1034	99,60	0,16	35,78	68,62
AFYON	3	3619	3937	434,28	0,26	522,59	-638,87
AFYON	33	0	130	0,00	0,81	0,00	0,00
AFYON	32	0	312	0,00	0,37	0,00	0,00
AĞRI	3	0	128	0,00	0,26	0,00	0,00
AKSARAY	31	170	175	20,40	0,16	7,33	-22,73
AKSARAY	3	251	930	30,12	0,26	36,25	612,63
AKSARAY	38	0	340	0,00	0,25	0,00	0,00
AKSARAY	32	0	239	0,00	0,37	0,00	0,00
AMASYA	38	32	0	3,84	0,25	4,20	-40,04
AMASYA	36	205	123	24,60	0,16	7,65	-114,25
AMASYA	31	1341	1218	160,92	0,16	57,81	-341,73
AMASYA	3	1578	1956	189,36	0,26	227,87	-39,23
AMASYA	32	0	465	0,00	0,37	0,00	0,00
ANKARA	38	15434	26182	1.852,08	0,25	2.023,46	6.872,46
ANKARA	37	1673	1660	200,76	0,12	-2,80	-210,96
ANKARA	36	2123	3488	254,76	0,16	79,25	1.030,99
ANKARA	35	732	2023	87,84	0,17	39,32	1.163,84
ANKARA	34	1098	1975	131,76	0,08	-47,90	793,14
ANKARA	33	1495	2549	179,40	0,81	1.024,48	-149,88
ANKARA	31	5329	5353	639,48	0,16	229,72	-845,20
ANKARA	3	30598	51365	3.671,76	0,26	4.418,43	12.676,81
ANKARA	39	0	85	0,00	0,65	0,00	0,00
ANKARA	32	0	8050	0,00	0,37	0,00	0,00
ANTALYA	36	165	550	19,80	0,16	6,16	359,04
ANTALYA	35	113	570	13,56	0,17	6,07	437,37
ANTALYA	32	2286	2805	274,32	0,37	566,01	-321,33
ANTALYA	31	1121	701	134,52	0,16	48,32	-602,84
ANTALYA	3	3799	4884	455,88	0,26	548,59	80,53
ANTALYA	38	0	112	0,00	0,25	0,00	0,00
ARTVİN	3	0	228	0,00	0,26	0,00	0,00
AYDIN	38	746	1264	89,52	0,25	97,80	330,68
AYDIN	36	850	1266	102,00	0,16	31,73	282,27
AYDIN	35	76	0	9,12	0,17	4,08	-89,20
AYDIN	32	3481	3491	417,72	0,37	861,89	-1.269,61
AYDIN	31	574	864	68,88	0,16	24,74	196,38
AYDIN	3	5976	7148	717,12	0,26	862,95	-408,07

AYDIN	33	0	154	0,00	0,81	0,00	0,00
BALIKESİR	38	831	1146	99,72	0,25	108,95	106,33
BALIKESİR	36	497	598	59,64	0,16	18,55	22,81
BALIKESİR	35	945	747	113,40	0,17	50,76	-362,16
BALIKESİR	32	750	392	90,00	0,37	185,70	-633,70
BALIKESİR	31	2750	5959	330,00	0,16	118,55	2.760,45
BALIKESİR	3	5846	9196	701,52	0,26	844,18	1.804,30
BALIKESİR	37	0	70	0,00	0,12	0,00	0,00
BALIKESİR	33	0	284	0,00	0,81	0,00	0,00
BİLECİK	38	4693	3940	563,16	0,25	615,27	-1.931,43
BİLECİK	37	719	0	86,28	0,12	-1,20	-804,08
BİLECİK	36	4184	5579	502,08	0,16	156,19	736,73
BİLECİK	31	135	167	16,20	0,16	5,82	9,98
BİLECİK	3	10693	11161	1.283,16	0,26	1.544,10	-2.359,26
BİLECİK	35	0	632	0,00	0,17	0,00	0,00
BİLECİK	34	0	463	0,00	0,08	0,00	0,00
BOLU	38	1320	2188	158,40	0,25	173,06	536,54
BOLU	36	1285	0	154,20	0,16	47,97	-1.487,17
BOLU	35	635	1692	76,20	0,17	34,11	946,69
BOLU	33	2272	2103	272,64	0,81	1.556,93	-1.998,57
BOLU	31	2012	4970	241,44	0,16	86,73	2.629,83
BOLU	3	8124	13486	974,88	0,26	1.173,13	3.213,99
BOLU	37	0	647	0,00	0,12	0,00	0,00
BOLU	32	0	842	0,00	0,37	0,00	0,00
BURDUR	38	239	488	28,68	0,25	31,33	188,99
BURDUR	36	328	633	39,36	0,16	12,24	253,40
BURDUR	33	129	85	15,48	0,81	88,40	-147,88
BURDUR	32	186	237	22,32	0,37	46,05	-17,37
BURDUR	31	191	284	22,92	0,16	8,23	61,85
BURDUR	3	1073	1727	128,76	0,26	154,94	370,30
BURSA	38	19976	25325	2.397,12	0,25	2.618,93	332,95
BURSA	36	1329	1931	159,48	0,16	49,61	392,91
BURSA	35	2468	4118	296,16	0,17	132,58	1.221,26
BURSA	34	411	0	49,32	0,08	-17,93	-442,39
BURSA	33	828	1446	99,36	0,81	567,40	-48,76
BURSA	32	31213	47546	3.745,56	0,37	7.728,27	4.859,17
BURSA	31	7354	10122	882,48	0,16	317,01	1.568,51
BURSA	3	64237	95000	7.708,44	0,26	9.275,99	13.778,57
BURSA	37	0	3534	0,00	0,12	0,00	0,00
ÇANAKKALE	36	4204	1575	504,48	0,16	156,93	-3.290,41
ÇANAKKALE	31	2239	2193	268,68	0,16	96,52	-411,20
ÇANAKKALE	3	6521	4408	782,52	0,26	941,65	-3.837,17
ÇANAKKALE	32	0	368	0,00	0,37	0,00	0,00
ÇANKIRI	3	353	1095	42,36	0,26	50,97	648,67
ÇORUM	38	292	590	35,04	0,25	38,28	224,68
ÇORUM	36	2086	2123	250,32	0,16	77,87	-291,19
ÇORUM	31	330	421	39,60	0,16	14,23	37,17
ÇORUM	3	3183	4348	381,96	0,26	459,63	323,41
ÇORUM	37	0	76	0,00	0,12	0,00	0,00
ÇORUM	32	0	694	0,00	0,37	0,00	0,00
D.BAKIR	3	224	791	26,88	0,26	32,35	507,77
DENİZLİ	38	1674	1889	200,88	0,25	219,47	-205,35

DENİZLİ	37	861	1042	103,32	0,12	-1,44	79,12
DENİZLİ	36	121	2240	14,52	0,16	4,52	2.099,96
DENİZLİ	35	328	556	39,36	0,17	17,62	171,02
DENİZLİ	33	228	0	27,36	0,81	156,24	-411,60
DENİZLİ	32	5798	27403	695,76	0,37	1.435,57	19.473,67
DENİZLİ	31	441	1029	52,92	0,16	19,01	516,07
DENİZLİ	3	9999	35074	1.199,88	0,26	1.443,88	22.431,24
DENİZLİ	34	0	544	0,00	0,08	0,00	0,00
EDİRNE	36	233	328	27,96	0,16	8,70	58,34
EDİRNE	32	2611	2410	313,32	0,37	646,48	-1.160,80
EDİRNE	31	1414	1673	169,68	0,16	60,95	28,37
EDİRNE	3	4653	4602	558,36	0,26	671,91	-1.281,27
ELAZIĞ	38	86	197	10,32	0,25	11,27	89,41
ELAZIĞ	36	594	555	71,28	0,16	22,17	-132,45
ELAZIĞ	31	568	499	68,16	0,16	24,49	-161,65
ELAZIĞ	3	1586	1662	190,32	0,26	229,02	-343,34
ERZİNCAN	31	140	128	16,80	0,16	6,04	-34,84
ERZİNCAN	3	606	498	72,72	0,26	87,51	-268,23
ERZURUM	31	376	363	45,12	0,16	16,21	-74,33
ERZURUM	3	471	826	56,52	0,26	68,01	230,47
ESKİŞEHİR	38	4031	6263	483,72	0,25	528,48	1.219,80
ESKİŞEHİR	37	1021	0	122,52	0,12	-1,71	-1.141,81
ESKİŞEHİR	36	1889	2486	226,68	0,16	70,52	299,80
ESKİŞEHİR	33	273	711	32,76	0,81	187,08	218,16
ESKİŞEHİR	32	1558	1855	186,96	0,37	385,76	-275,72
ESKİŞEHİR	31	2637	3434	316,44	0,16	113,68	366,88
ESKİŞEHİR	3	11680	16112	1.401,60	0,26	1.686,62	1.343,78
ESKİŞEHİR	35	0	660	0,00	0,17	0,00	0,00
ESKİŞEHİR	34	0	472	0,00	0,08	0,00	0,00
GAZİANTEP	38	404	782	48,48	0,25	52,97	276,55
GAZİANTEP	37	108	72	12,96	0,12	-0,18	-48,78
GAZİANTEP	35	756	1368	90,72	0,17	40,61	480,67
GAZİANTEP	34	191	341	22,92	0,08	-8,33	135,41
GAZİANTEP	32	8878	16799	1.065,36	0,37	2.198,17	4.657,47
GAZİANTEP	31	1151	1976	138,12	0,16	49,62	637,26
GAZİANTEP	3	11812	22025	1.417,44	0,26	1.705,68	7.089,88
GAZİANTEP	36	0	412	0,00	0,16	0,00	0,00
GAZİANTEP	33	0	275	0,00	0,81	0,00	0,00
GİRESUN	31	1350	2506	162,00	0,16	58,20	935,80
GİRESUN	3	1585	2619	190,20	0,26	228,88	614,92
HATAY	38	1195	1347	143,40	0,25	156,67	-148,07
HATAY	37	1113	1853	133,56	0,12	-1,86	608,30
HATAY	36	139	286	16,68	0,16	5,19	125,13
HATAY	35	459	0	55,08	0,17	24,66	-538,74
HATAY	32	740	624	88,80	0,37	183,22	-388,02
HATAY	31	432	489	51,84	0,16	18,62	-13,46
HATAY	3	4151	4828	498,12	0,26	599,42	-420,54
İÇEL	38	1090	1445	130,80	0,25	142,90	81,30
İÇEL	36	2250	2829	270,00	0,16	83,99	225,01
İÇEL	35	2452	1864	294,24	0,17	131,72	-1.013,96
İÇEL	32	4922	5762	590,64	0,37	1.218,68	-969,32
İÇEL	31	818	1846	98,16	0,16	35,26	894,58

İÇEL	3	11710	14491	1.405,20	0,26	1.690,95	-315,15
İÇEL	34	0	160	0,00	0,08	0,00	0,00
İÇEL	33	0	444	0,00	0,81	0,00	0,00
ISPARTA	33	380	521	45,60	0,81	260,40	-165,00
ISPARTA	32	1013	1693	121,56	0,37	250,82	307,62
ISPARTA	31	324	591	38,88	0,16	13,97	214,15
ISPARTA	3	2752	3619	330,24	0,26	397,40	139,36
ISPARTA	36	443	375	53,16	0,16	16,54	-137,70
İSTANBUL	39	4285	6400	514,20	0,65	2.253,54	-652,74
İSTANBUL	38	80851	76923	9.702,12	0,25	10.599,87	-24.229,99
İSTANBUL	37	11826	7137	1.419,12	0,12	-19,78	-6.088,34
İSTANBUL	36	12600	11232	1.512,00	0,16	470,35	-3.350,35
İSTANBUL	35	34974	31697	4.196,88	0,17	1.878,77	-9.352,65
İSTANBUL	34	12756	11198	1.530,72	0,08	-556,53	-2.532,19
İSTANBUL	33	3279	3588	393,48	0,81	2.247,00	-2.331,48
İSTANBUL	32	116279	128521	13.953,48	0,37	28.790,44	-30.501,92
İSTANBUL	31	17825	14834	2.139,00	0,16	768,40	-5.898,40
İSTANBUL	3	294675	291530	35.361,00	0,26	42.551,83	-81.057,83
İZMİR	39	285	501	34,20	0,65	149,89	31,91
İZMİR	38	15381	19255	1.845,72	0,25	2.016,51	11,77
İZMİR	37	3590	5013	430,80	0,12	-6,00	998,20
İZMİR	36	3875	4469	465,00	0,16	144,65	-15,65
İZMİR	35	5180	7445	621,60	0,17	278,26	1.365,14
İZMİR	34	2633	3378	315,96	0,08	-114,88	543,92
İZMİR	33	781	1498	93,72	0,81	535,19	88,09
İZMİR	32	22119	18247	2.654,28	0,37	5.476,62	-12.002,90
İZMİR	31	20492	18005	2.459,04	0,16	883,37	-5.829,41
İZMİR	3	74336	77811	8.920,32	0,26	10.734,31	-16.179,63
K.MARAŞ	38	157	435	18,84	0,25	20,58	238,58
K.MARAŞ	32	1704	6528	204,48	0,37	421,91	4.197,61
K.MARAŞ	31	323	419	38,76	0,16	13,92	43,32
K.MARAŞ	3	2395	7799	287,40	0,26	345,84	4.770,76
K.MARAŞ	37	0	118	0,00	0,12	0,00	0,00
KARAMAN	31	2279	4573	273,48	0,16	98,24	1.922,28
KARAMAN	3	2279	5136	273,48	0,26	329,09	2.254,43
KARS	3	83	272	9,96	0,26	11,99	167,05
KASTAMONU	36	309	341	37,08	0,16	11,53	-16,61
KASTAMONU	33	501	0	60,12	0,81	343,32	-904,44
KASTAMONU	32	121	928	14,52	0,37	29,96	762,52
KASTAMONU	31	67	125	8,04	0,16	2,89	47,07
KASTAMONU	3	1055	2023	126,60	0,26	152,34	689,06
KAYSERİ	38	3382	5570	405,84	0,25	443,39	1.338,77
KAYSERİ	37	488	786	58,56	0,12	-0,82	240,26
KAYSERİ	32	7479	8256	897,48	0,37	1.851,78	-1.972,26
KAYSERİ	31	2950	2051	354,00	0,16	127,17	-1.380,17
KAYSERİ	3	14771	23323	1.772,52	0,26	2.132,97	4.646,51
KAYSERİ	36	0	305	0,00	0,16	0,00	0,00
KAYSERİ	33	0	5434	0,00	0,81	0,00	0,00
KIRIKKALE	38	270	232	32,40	0,25	35,40	-105,80
KIRIKKALE	3	496	322	59,52	0,26	71,62	-305,14
KIRIKKALE	31	226	90	27,12	0,16	9,74	-172,86
KIRKLARELİ	38	522	841	62,64	0,25	68,44	187,92

KIRKLARELİ	36	2624	2571	314,88	0,16	97,95	-465,83
KIRKLARELİ	32	1422	6339	170,64	0,37	352,08	4.394,28
KIRKLARELİ	31	775	2337	93,00	0,16	33,41	1.435,59
KIRKLARELİ	3	6060	14094	727,20	0,26	875,08	6.431,72
KIRKLARELİ	35	0	1165	0,00	0,17	0,00	0,00
KIRKLARELİ	33	0	159	0,00	0,81	0,00	0,00
KIRŞEHİR	3	875	1448	105,00	0,26	126,35	341,65
KOCAELİ	38	12486	20469	1.498,32	0,25	1.636,96	4.847,72
KOCAELİ	37	9227	7519	1.107,24	0,12	-15,43	-2.799,81
KOCAELİ	36	4856	3892	582,72	0,16	181,27	-1.727,99
KOCAELİ	35	14012	18077	1.681,44	0,17	752,71	1.630,85
KOCAELİ	34	1192	1083	143,04	0,08	-52,01	-200,03
KOCAELİ	33	696	1116	83,52	0,81	476,95	-140,47
KOCAELİ	31	1302	3182	156,24	0,16	56,13	1.667,63
KOCAELİ	3	46708	57389	5.604,96	0,26	6.744,76	-1.668,72
KOCAELİ	39	0	45	0,00	0,65	0,00	0,00
KOCAELİ	32	0	2006	0,00	0,37	0,00	0,00
KONYA	38	1957	3956	234,84	0,25	256,57	1.507,59
KONYA	37	354	478	42,48	0,12	-0,59	82,11
KONYA	36	528	1299	63,36	0,16	19,71	687,93
KONYA	35	235	1016	28,20	0,17	12,62	740,18
KONYA	34	455	757	54,60	0,08	-19,85	267,25
KONYA	31	3514	4249	421,68	0,16	151,48	161,84
KONYA	3	7156	12831	858,72	0,26	1.033,34	3.782,94
KONYA	33	0	297	0,00	0,81	0,00	0,00
KONYA	32	0	779	0,00	0,37	0,00	0,00
KÜTAHYA	36	2144	4928	257,28	0,16	80,03	2.446,69
KÜTAHYA	35	181	202	21,72	0,17	9,72	-10,44
KÜTAHYA	33	304	338	36,48	0,81	208,32	-210,80
KÜTAHYA	32	570	0	68,40	0,37	141,13	-779,53
KÜTAHYA	31	798	255	95,76	0,16	34,40	-673,16
KÜTAHYA	3	3997	6311	479,64	0,26	577,18	1.257,18
MALATYA	32	1163	3749	139,56	0,37	287,96	2.158,48
MALATYA	31	76	660	9,12	0,16	3,28	571,60
MALATYA	3	1449	4856	173,88	0,26	209,24	3.023,88
MALATYA	36	-362	101	-43,44	0,16	-13,51	519,95
MANİSA	38	5977	8803	717,24	0,25	783,61	1.325,15
MANİSA	37	184	253	22,08	0,12	-0,31	47,23
MANİSA	36	4030	4987	483,60	0,16	150,44	322,96
MANİSA	35	2234	1156	268,08	0,17	120,01	-1.466,09
MANİSA	32	4350	1787	522,00	0,37	1.077,05	-4.162,05
MANİSA	31	1935	4478	232,20	0,16	83,41	2.227,39
MANİSA	3	19200	22001	2.304,00	0,26	2.772,53	-2.275,53
MANİSA	34	0	190	0,00	0,08	0,00	0,00
MANİSA	33	0	347	0,00	0,81	0,00	0,00
MARDİN	3	0	347	0,00	0,26	0,00	0,00
MUĞLA	33	83	0	9,96	0,81	56,88	-149,84
MUĞLA	32	127	319	15,24	0,37	31,44	145,32
MUĞLA	31	0	126	0,00	0,16	0,00	0,00
MUĞLA	3	500	1159	60,00	0,26	72,20	526,80
MUĞLA	38		154	0,00	0,25	0,00	0,00
MUĞLA	36		472	0,00	0,16	0,00	0,00

NEVŞEHİR	36	528	378	63,36	0,16	19,71	-233,07
NEVŞEHİR	31	420	271	50,40	0,16	18,11	-217,51
NEVŞEHİR	3	1157	1341	138,84	0,26	167,07	-121,91
NİĞDE	3	1959	1981	235,08	0,26	282,88	-495,96
NİĞDE	32	1959	1195	235,08	0,37	485,04	-1.484,12
ORDU	35	72	0	8,64	0,17	3,87	-84,51
ORDU	31	2824	2748	338,88	0,16	121,74	-536,62
ORDU	3	3443	3872	413,16	0,26	497,18	-481,34
ORDU	36	0	460	0,00	0,16	0,00	0,00
ORDU	33	0	467	0,00	0,81	0,00	0,00
RİZE	3	2396	1443	287,52	0,26	345,99	-1.586,51
SAKARYA	38	2489	5392	298,68	0,25	326,32	2.278,00
SAKARYA	36	215	424	25,80	0,16	8,03	175,17
SAKARYA	35	335	1144	40,20	0,17	18,00	750,80
SAKARYA	33	490	480	58,80	0,81	335,78	-404,58
SAKARYA	31	1914	2576	229,68	0,16	82,51	349,81
SAKARYA	3	5727	11369	687,24	0,26	826,99	4.127,77
SAKARYA	32	0	910	0,00	0,37	0,00	0,00
SAMSUN	38	343	495	41,16	0,25	44,97	65,87
SAMSUN	37	339	499	40,68	0,12	-0,57	119,89
SAMSUN	36	478	516	57,36	0,16	17,84	-37,20
SAMSUN	35	763	515	91,56	0,17	40,99	-380,55
SAMSUN	33	333	409	39,96	0,81	228,19	-192,15
SAMSUN	32	497	941	59,64	0,37	123,06	261,30
SAMSUN	31	1122	973	134,64	0,16	48,37	-332,01
SAMSUN	3	3875	4348	465,00	0,26	559,56	-551,56
SİNOP	36	1244	508	149,28	0,16	46,44	-931,72
SİNOP	3	1797	825	215,64	0,26	259,49	-1.447,13
SİVAS	31	160	72	19,20	0,16	6,90	-114,10
SİVAS	3	324	646	38,88	0,26	46,79	236,33
ŞANLIURFA	3	518	507	62,16	0,26	74,80	-147,96
TEKİRDAĞ	38	5579	9402	669,48	0,25	731,43	2.422,09
TEKİRDAĞ	36	1094	1212	131,28	0,16	40,84	-54,12
TEKİRDAĞ	34	591	889	70,92	0,08	-25,78	252,86
TEKİRDAĞ	33	317	429	38,04	0,81	217,23	-143,27
TEKİRDAĞ	32	11739	28034	1.408,68	0,37	2.906,55	11.979,77
TEKİRDAĞ	31	2466	3612	295,92	0,16	106,30	743,78
TEKİRDAĞ	3	21995	45562	2.639,40	0,26	3.176,13	17.751,47
TEKİRDAĞ	35	0	1668	0,00	0,17	0,00	0,00
TOKAT	36	693	768	83,16	0,16	25,87	-34,03
TOKAT	33	137	0	16,44	0,81	93,88	-247,32
TOKAT	31	636	668	76,32	0,16	27,42	-71,74
TOKAT	3	1757	2056	210,84	0,26	253,72	-165,56
TOKAT	32	0	519	0,00	0,37	0,00	0,00
TRABZON	38	213	426	25,56	0,25	27,93	159,51
TRABZON	37	180	202	21,60	0,12	-0,30	0,70
TRABZON	35	92	101	11,04	0,17	4,94	-6,98
TRABZON	31	992	1446	119,04	0,16	42,76	292,20
TRABZON	3	1774	2693	212,88	0,26	256,17	449,95
TRABZON	36	0	242	0,00	0,16	0,00	0,00
TRABZON	33	0	179	0,00	0,81	0,00	0,00
UŞAK	36	367	0	44,04	0,16	13,70	-424,74

UŞAK	32	2602	3740	312,24	0,37	644,25	181,51
UŞAK	3	3052	4834	366,24	0,26	440,72	975,04
UŞAK	31	0	91	0,00	0,16	0,00	0,00
VAN	31	56	215	6,72	0,16	2,41	149,87
VAN	3	56	215	6,72	0,26	8,09	144,19
YOZGAT	31	253	90	30,36	0,16	10,91	-204,27
YOZGAT	3	907	781	108,84	0,26	130,97	-365,81
ZONGULDAK	37	1584	216	190,08	0,12	-2,65	-1.555,43
ZONGULDAK	36	912	1086	109,44	0,16	34,04	30,52
ZONGULDAK	31	523	461	62,76	0,16	22,55	-147,31
ZONGULDAK	3	3493	2879	419,16	0,26	504,40	-1.537,56
ZONGULDAK	38	474	309	56,88	0,25	62,14	-284,02
ZONGULDAK	33	0	277	0,00	0,81	0,00	0,00
ZONGULDAK	32	0	530	0,00	0,37	0,00	0,00
TURKEY	39	4722	7772	566,64			
TURKEY	38	186182	232933	22.341,84			
TURKEY	37	35689	39912	4.282,68			
TURKEY	36	65347	75628	7.841,64			
TURKEY	35	75766	88928	9.091,92			
TURKEY	34	22980	24735	2.757,60			
TURKEY	33	14235	25698	1.708,20			
TURKEY	32	262866	359495	31.543,92			
TURKEY	31	106120	123429	12.734,40			
TURKEY	3	773907	978530	92.868,84