

# Economic Restructuring and Regional Disparity after the IMF Crisis in Korea\*

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## IMF 경제위기 이후 경제재구조화와 지역격차\*

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**Abstract :** This paper aims to explore the recent economic restructuring and regional disparity after the IMF crisis in Korea in terms of uneven regional development. The so-called IMF crisis brought about changing Korean society and economy greatly. Although the Korean economy has been almost completely recovered from the IMF crisis, some structural problems remain. In particular, regional disparity has been deepening in the process of economic restructuring for overcoming the IMF crisis. While the Seoul metropolitan area including Kyunggi province has recovered from the crisis relatively fast and industrial production in the area has been kept active, the productive activities of local areas such as Pusan, Taegu, Kwaju and Ulsan province have shrunk significantly. On the contrary, the economic situation of Taejeon province is not so bad in comparison with other local areas. The recent deepening of regional disparity after the IMF crisis can be seen as a process of economic restructuring to overcome the crisis. However, it is necessary to point out that production system has already been gradually transformed from Fordism toward post-Fordism since the early 1990s. In this context I argue that the IMF crisis, as an accelerating trigger of such spatial reconfiguration, has deepened regional disparity.

**Key words :** regional disparity, uneven regional development, Fordism, Post-fordism, economic restructuring, IMF crisis, economic crisis

**요약 :** IMF 경제위기는 한국의 사회·경제에 큰 충격을 주었다. 경제위기가 다른 나라에 비해 비교적 빠르게 극복은 되었으나 그 충격은 여전하다. 특히 경제회복의 속도가 지역 간에 다르게 전개되면서 종전의 지역격차가 더욱 심화되는 추세에 있다. 이 논문은 지역불균등발전의 관점에서 IMF 경제위기 이후 경제재구조화와 지역격차의 문제를 고찰하는데 목적이 있다. 서울과 경기도 등 수도권은 경제위기 상태를 상대적으로 빠르게 회복하였으며 활발한 경제활동을 유지하였다. 그러나 수도권 이외의 다른 지역은 경제침체 상태가 상당히 오랜 기간 지속되었으며 구조적 한계를 벗어나지 못하고 있다. 예외적으로 대전의 생산활동이 다른 지역에 비해 안정적이다. 이러한 지역 간의 차별화는 각 지역의 경제구조의 차이에서 발생한다. 따라서 현재의 지역격차는 1960년대 이후 지속된 지역불균등발전의 결과이며, 특히 1990년대 초부터 진행된 포디즘에서 포스트 포디즘으로의 전환에 따른 공간적 재편성의 연장이라고 할 수 있다. IMF 경제위기는 그러한 공간적 재편성을 강화하고 여전히 포디즘적 생산체계에 의존하는 지역을 강타하였으며, 최근 지역격차의 심화는 그 결과이다.

**주요어 :** 지역격차, 지역불균등발전, 포디즘, 포스트 포디즘, 경제재구조화, 경제위기, IMF 위기

### 1. Introduction

Korea had experienced a high economic growth for decades before the IMF bailout in the late 1997. However, the so-called IMF crisis greatly shocked nearly all aspects of Korean society with the rapid economic downturn. Of course, the Korean economy now is almost

recovering from the IMF crisis. Korean government has even repaid IMF loans ahead of schedule due to the rapid economic recovery. After more than four years since the IMF crisis, Korea currently achieves higher economic growth rate than other Newly Industry Countries. Thus, she has been recently exemplified as a good model of overcoming the economic crisis in

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virtue of the IMF bailout program. However, Korean economy is still said to have structural problems and to need a continuous economic restructuring. Furthermore, some provinces are not yet out of a swamp of stagnation despite the Korean economic recovery in general.

The economic depression after the IMF crisis did not influence only a certain region, but it is nationwide problem. However, economic depression of each region has shown considerable differences. As a result, regional disparity has been deepened with economic restructuring since the IMF crisis. In order to fully understand the nature of the Korean economic crisis, we must investigate the regional features of economic restructuring in the process of overcoming the crisis by capital. It is important to note how the economic restructuring after the IMF crisis has been realized in regional context.

This paper aims at examining the recent economic restructuring and regional disparity after the IMF crisis in Korea. The paper is broadly divided into two sections. The first section deals with the uneven regional development in Korea since the capitalist industrialization in the 1960s. The 1960s are the period when Korean capitalist industrialization started in earnest. Contemporary regional disparity was only at a phase of shifting from one stage of capitalist development to another stage in the process of overcoming the structural crisis by capital. In my view, regional disparity seems to be inherent in the process of capitalist economic development. The second section discusses how regional disparity has been deepened after the IMF crisis in Korea. The focus of discussion is on the effects of economic restructuring in the regional context.

## 2. Theoretical Perspective

Uneven regional development does not simply

mean that the types and quantities of socio-economic activities vary from place to place. Rather, it refers to the uneven process development that derives from the particular characters of capitalism. Indeed, uneven development in space and time is central to the processes of capitalist production and social reproduction. Because development in one place and time is causally linked with underdevelopment elsewhere, development in one area of life is causally linked with underdevelopment in another, and the conditions that both create lead to further uneven development (Duncan and Goodwin, 1988).

In other words, regional differentiation of development is really inherent in capitalist economy. It means that the capitalist division of labor itself bases on socio-spatial inequality (Massey, 1984). Because economic growth is the product of division of labor, it is possible only through restructuring the organization of production continuously in response to crises (Kim, 1994). On the one hand, the capitalist economy continuously seeks to maximize profit through the higher organic composition of capital. On the other hand, it permanently faces the tendency of decreasing profit rate due to the higher composition. Realization of produced value is also in great difficulties periodically.

That is to say, capitalist economic development does not continue at a fixed rate, but tends to proceed with the regional appearance of inherent crises and shifts from one stage to another stage through the process of overcoming the economic crisis generated at each stage by capital. Furthermore economic crises themselves are effective ways of solving the inherent problems in the process of capitalist accumulation. The attempts to overcome such inherent crises in the capitalist economic system are the economic restructuring, which involves structural adjustment of industry. Thus the economic restructuring

can be seen as a strategy of capital and capitalist state to overcome an immediate crisis and to develop the process of capitalist accumulation.

The economic restructuring is not only projected on but also mediated by space, as it is necessarily related to the spatial division of labor. At any point in time the spatial division of labor is both a legacy of past investment and an influence of future investment (Lovering, 1989). Hence uneven regional development usually becomes the important basis of economic restructuring, because the capital seeks higher profit rate through regional differentiation. In this context, a contemporary landscape of regional disparity should be treated as the structured differentiation of capital investment and its spatial process that derives from the inherent characters of capitalism (Hurh, 2000).

### 3. Overview of Uneven Regional Development in Korea

At present Korea is one of the newly industrial countries (NICs) and a member of Organization for Economic Cooperation and

Development (OECD) which mostly consist of advanced capitalist countries. But Korea has been an agricultural society with no significant industrial development until the 1950s. At that time economic conditions of Korea were similar to those of any resource-poor and low-income developing country. From the early 1960s, with the introduction of the First Five Year Economic Development Plan, Korea began to industrialize (Park, 2000). Korea's economy accelerated throughout the 1960s by adopting an export-oriented development strategy centering on labor-intensive manufacturing. Korean industrialization, particularly the development of capitalism and accumulation of capital since the 1960s has been strongly led by the state.

Since the 1960s before the IMF crisis in 1997 Korean capitalism had already experienced three periodical crises: the crisis in the early 1970s, the early and the late 1980s. Periodical crises and business cycle can refer to the stages of capitalist development, and each stage of development showed a characteristic mode of economic development, spatial restructuring is a projection of it. Government has supported the accumulation of capital and economic restruc-

Table 1. Number of Employees by region in the Manufacturing Industry, 1958~1988

(Unit: 1,000 persons, %)

	1958	1968	1978	1988
National total	260 (100.0)	748 (100.0)	2,111 (100.0)	3,120 (100.0)
Seoul metropolitan area	34.6	43.5	47.8	48.5
Seoul	25.0	34.0	25.4	17.7
Incheon·Kyonggi	9.6	9.5	22.4	30.8
Southeast region	38.6	35.5	40.2	38.4
Pusan·Kyongnam	23.6	23.3	28.1	26.1
Daegu·Kyongbuk	15.0	12.2	12.1	12.3
Southwest region	13.1	10.2	5.3	5.8
Kwangju·Cheonnam	6.8	5.8	2.8	3.3
Cheonbuk	6.3	4.4	2.5	2.5
Daejun·Chungchong	10.0	7.7	5.7	6.2
Other regions	3.8	3.0	1.3	1.0

Source: Park, 2000, p.181.

turing in each stage through economic policy and/or regional planning. Government's spatial and non-spatial policies are one of the most important factors that have created the structured regional disparity in Korea.

Korea has experienced rapid industrialization and changes in the industrial composition since the early 1960s. Such changes were largely due to the export-oriented industrial policy adopted in the 1960s. The core of the policy was to promote labor-intensive, export-oriented manufacturing industries in which Korea had comparative advantages. As a result, Korea could achieve very high economic growth for the period of the 1960s, which she had never experienced previously.

However, the growing economic picture began to fade in the beginning of the 1970s. The two major oil shocks plunged the world economy into stagflation and consequent resurgence of protectionism (Jin, 1988). This is the first crisis of Korean economy since the capitalist industrialization was promoted in earnest. Korean capitalism needs a new growth strategy to overcome the crisis and the state intervened extensively in the market mechanism. Korean government's strategies were to advance the structure of capitalist accumulation through the investment into heavy and chemical industries and to reorganize 'traditional space' into 'planned space'. Thereby Korean capitalism entered the monopoly stage at which the capital was concentrated into a few conglomerates called Chaebol through the heavy and chemistry industrialization in the 1970s. At the same time, productive force concentrated in the Seoul metropolitan area and Southeast coastal area in virtue of the active investment of social overhead capital. Since the 1970s Southeast region including Kyongnam and Kyongbuk provinces has been one of the regions where heavy and chemical industries were largely

agglomerated.

As a result, Southeast region had 40% of total workers in the manufacture and 47.4% of the fixed capital as of 1980, while Southwest region including Chunnam and Chunbuk provinces became stagnant areas that had only 6% and 10% of them respectively (Kim, 1994). The rapid growth of new industrial cities like Kumi, Pohang, Ulsan, Changwon is the examples of a large scale industrialization in Southeast region in the 1970s. Especially, Kyonnam province adjacent to Pusan became the core of industrial regions in Korea in parallel with Kyonggi province nearby Seoul.

A new phase of uneven regional development has been deployed in Korea since the 1970s due to the investment into heavy and chemical industries and concentration of productive force in Seoul metropolitan area (i.e. the Capital region) and Southeast region. These regions have been two axes of industrialization in Korea since the 1970s. On the contrary, other regions like Southwest region lagged behind relatively. Because industrialization and investment of capital were limited to a few large cities such as Seoul, Pusan, Daegu and so on, regional differentiation was mainly a problem between them and the remnants of territory before the 1970s.

Korean government's strong drive to develop the heavy and chemical industries not only proved successful but also brought changes in the structure of the manufacturing industries in general. The focus of Korean industry moved from light industries such as textiles and clothes to heavy and chemical industries. However, Korea faced a deep economic crisis again in the end of 1970s because of excessive investment into the heavy and chemical industries and global economic stagnation. At that time Korean economy experienced a serious drop of profit rate and the delay of capital circulation.

Korean capitalism facing such crisis attempted to restructure the industry through the rationalization of the eclipsed industries such as shoes industry, the adjustment of investment into the heavy and chemical industries and capital investment into new industrial facilities, etc. Therefore the industrial restructuring and uneven regional development in the 1980s can be also seen as a process by which the capital attempted to overcome the economic crisis and keep the rapid economic growth of the 1970s with the strong support of government.

In this process, regions were reorganized by Fordist accumulation system. Of course, it already began to be introduced in the 1970s. However, it was not until the 1980s that the Fordism was fully mature. In more details the Fordist division of labor generated a social-spatial hierarchy in the nationwide scale in the 1980s. For instance, headquarters of companies tended to be concentrated on Seoul, while branch plants to be decentralized to other regions. Thus at that time uneven regional development was characterized as a vertical integration of core-periphery.

On the other hand, there was growing importance of information industry with rapid technological changes in the world economy since the 1980s. Hereby, Korean economy began to move to knowledge-based and technology-intensive activities in the mid-1980s. Korean government paid greater attention to the development of a telecommunication infrastructure (Lee, 1994, 384). The Korean government asserted the anticipated information society, and played a positive leadership role in promoting the use of information technology. At the same time it supported development of information infrastructure and the electronic industry. Thereafter, a number of productive forces have come into play to contribute to this shift to an information society in Korea. At the same time, the advanced

industries like semiconductors, computers and electronic and electrical goods had made the most rapid growth since the 1980s.

However, Korean economy had not yet been transformed toward the post-Fordism in the 1980s. It was not until the 1990s that Korean economy was legitimately transformed toward the post-Fordist accumulation system. In the beginning of the 1990s capitalist development of Korea faced a serious crisis again due to the shortage of domestic technology and the dependency on foreign technology. Transformation toward the post-Fordism began in the process of overcoming the crisis. The efforts of the state and capital to overcome the economic crisis concentrated on technological innovation deployed new industrial restructuring in the 1990s.

Thereby, Korean economy has gradually been transformed toward flexible accumulation system since the 1990s. However, this transformation deepened uneven regional development through accelerating the concentration of high technology industries in Seoul metropolitan area. The information rich environment contributes to the concentration of information technology industries, R & D laboratories and information related activities. Seoul metropolitan area initially served as a manufacturing location, but has become a specialized center of information related activities. Information technology has not led to the equal development among regions. Economic situation of Korea just before the IMF crisis can be characterized by the rapid expansion of regional differentiation by information technology. The IMF crisis can be viewed as being overlapped on the process of such regional differentiation.

In summary, capital accumulation of Korean economy based on labor-intensive, light industry-centered structure was launched centering on a few large cities in which cheap labor was concentrated and agglomerated in the 1960s. The

change of industrial structure to the heavy and chemical industry in the 1970s strengthened and reorganized the pivot of development by which Seoul metropolitan area are connected with Southeast region by the formation of large industrial complexes in Southeast coastal area.

While industrialization of the 1960s had showed the urban-rural disparity, the characteristics of the early regional uneven development, the heavy and chemical industrialization of the 1970s brought the disparity between industrial regions and non-industrial regions with the state's extensive intervention in spatial organization. New regional disparity of the 1970s was due to differentiation of productivity, being overlapped on the existing urban-rural disparity. Uneven regional development of the 1980s can be seen as an overlapping phenomenon of the past processes. However, it had a characteristic of Fordist spatial division of labor. In the 1990s uneven regional development was transformed toward post-Fordist accumulation system with the rapid advance of information technology.

#### 4. New Political Economy of Regional Disparity after the IMF Crisis

##### 1) Regional variation of economic crisis and recovery

During the year of 1998(so-called the IMF bailout), the Korean economy experienced the deepest decline since the Korean War in 1950.

GDP marked minus 7.0 percent growth at the second half of 1998 and per capita GNP returned to the level as it was ten years ago. Industrial production also sharply went down by 9.6 point from the previous year level, and the shrinkage of production enforced a couple of millions to get out of their job, tripling the rate of unemployment from 2.2 percent in 1997 to 6.7 percent in 1998. Korea began to stabilize the economy again from next year, 1999, but it took a lot of time that Korean economy was restored to health. For instance, construction investment remarked over minus 10 percent growth in 1999 (for more details, see Table 2 and Table 3). It is not easy to say that Korean economy has been completely restored to health even at present.

Economic decline took place not only because across different industrial sectors and firms, but also among regions, each with a different set of industries(Hassink, 1999). Regional variation in the deployment of economic decline indicated that each region was subject to the different impact of the economic crisis and underwent a different path of regional industrial restructuring.

First, large cities and Kyonggi province were shocked most strongly during the early period of the IMF crisis, from the end of 1997 to 1998. Table 1 shows that these regions experienced so high unemployment rates at that time. This is because most firms are concentrated in the regions.

In addition, distribution of firm size and types

Table 2. Changes in Major Economic Indicators during the IMF crisis (Unit %)

Economic Indicators	1997	1998		1999	
	Total	1st Half	2nd Half	1st Half	2nd Half
Economic Growth Rate	5.0	-6.4	-7.0	8.2	12.9
Private Consumption	3.5	-12.4	-12.9	8.5	15.0
Fixed Investment	-2.2	-22.1	-20.3	0.6	7.3
Facilities Investment	-8.7	-42.3	-34.6	24.8	51.9
Construction Investment	2.3	-6.6	-12.9	-10.8	-10.0

Source: Bank of Korea, Economic Statistics; Korea National Statistics Office, Statistics DB.

Table 3. Change of manufacturing production and unemployment rate by region (Unit %)

	Change of manufacturing production (Oct 1997 - Apr 1998)		Unemployment rate	
			1997	April 1998
City Provinces				
Seoul	-19.5		2.1	7.4
Pusan	-16.1		3.6	8.5
Taegu	-17.8		3.6	8.2
Incheon	-35.1		2.9	8.1
Kangju	-11.3		2.8	7.5
Taejun	-17.2		2.4	6.2
Ulsan	-16.0		-	7.1
Provinces				
Kyunggi	-0.5		2.4	8.0
Kangwon	-14.4		0.5	3.3
Chungbuk	-22.2		1.4	5.3
Chungnam	-27.4		1.1	3.5
Cheonbuk	-25.8		2.2	5.4
Cheonnam	-11.8		1.2	4.3
Kyungbuk	-13.3		1.4	4.6
Kyungnam	-10.6		1.3	4.8
Cheju	-14.5		1.1	3.0
total	-13.5		2.2	6.7

Source: Korea National Statistics Office, Statistics DB.

of industry seem to be important factors in facing the IMF crisis and overcoming it. In general small-medium sized enterprises are the most serious sufferers of the crisis in terms of firm size. Financial agencies attempt to support large-sized enterprises because their survival is directly related to the default of large-sized enterprises. Thus, probably large sized enterprises have a principal advantage in the crisis situation, comparing to small-medium sized ones, and regions in which they are located experienced worse decline than regions with large-medium sized ones. In fact, Seoul and Kyonggi province are regions that have a lot of small-medium sized enterprises in Korea as Table 4 shows. These regions where small-medium sized enterprises are concentrated also showed the fast economic recovery among provinces during the late of the IMF crisis. Especially Kyonggi province recorded the fastest economic recovery. On the contrary, the economies of other

provinces are recovering slowly or still in the swamp of stagnation.

Table 5 also shows the regional variation of economic decline and recovery since 1997. While Seoul metropolitan area is revealed to have considerable increase in industrial production, most other regions is improving their economic situations very slowly. Especially Daegu is still in a serious swamp of stagnation, which is one of the largest cities in Southeast region. Daegu is a city based on traditional labor-intensive industries such as textile industry.

However, there is a fact that we should consider carefully. It is that Daejun and Chungchong provinces have a trend of relatively fast economic recovery. These regions were weakly struck by the IMF crisis than other provinces. One of the reasons why these regions were struck by the IMF crisis weakly is that they are adjacent to Seoul metropolitan area. However, it is also important factor that their

Table 4. Number of mining and manufacturing establishment by employee size (Year 2000)  
(Unit: Number, %)

	Total	5~19	20~99	100~299	300~
<b>Large Cities</b>					
Seoul	18.6	20.6	9.7	7.0	7.7
Pusan	9.1	9.3	7.7	6.9	5.0
Daegu	6.1	6.2	5.8	4.6	3.5
Incheon	8.7	8.8	8.5	7.4	6.2
Kwongju	1.5	1.5	1.5	1.4	1.9
Daejun	1.3	1.2	1.3	2.0	1.8
Ulsan	1.3	1.0	2.4	4.9	5.2
<b>Provinces</b>					
Kyounggido	29.4	29.6	29.8	27.4	23.0
Kangwondo	1.4	1.3	1.5	1.3	2.5
Chungbuk	2.6	2.1	4.0	5.7	5.5
Chungnam	3.0	2.6	4.8	7.6	6.4
Cheonbuk	2.2	1.9	2.7	2.9	3.9
Cheonnam	2.5	2.5	2.3	2.5	2.6
Kyongbuk	5.0	4.3	7.5	7.7	11.9
Kyongnam	7.2	6.5	10.2	10.6	12.9
Cheju	0.3	0.3	0.2	0.1	0.0
<b>Whole Country</b>	<b>98,784</b> (100.0)	<b>72,439</b> (100.0)	<b>22,890</b> (100.0)	<b>2,717</b> (100.0)	<b>738</b> (100.0)

Source: Korea National Statistics Office, Statistics DB.

Table 5. Changes of industrial production index by region (1995=100)

	1997	1998	1999	2000	2001
<b>Large Cities</b>					
Seoul	89.5	74.9	96.4	108.7	108.0
Pusan	93.0	79.5	83.7	93.9	104.9
Daegu	96.6	79.1	89.0	92.3	87.7
Incheon	104.1	77.5	97.0	107.2	87.9
Kwongju	101.4	84.9	110.5	125.0	127.1
Daejun	108.9	92.9	104.0	117.4	126.5
Ulsan	118.0	105.5	118.9	125.4	126.1
<b>Provinces</b>					
Kyonggi	119.1	127.2	183.1	238.1	251.2
Kangwon	109.2	91.8	97.2	100.2	99.7
Chungbuk	135.2	134.5	180.0	216.6	190.6
Chungnam	145.0	131.1	168.5	190.7	196.0
Cheonbuk	126.0	102.1	121.9	127.9	121.0
Cheonnam	124.9	120.9	129.9	136.8	146.0
Kyongbuk	123.7	115.8	155.7	175.8	192.3
Kyongnam	117.8	107.3	122.0	131.6	146.8
Cheju	102.9	105.5	117.2	136.2	136.7
<b>Total</b>	<b>113.6</b>	<b>103.2</b>	<b>131.9</b>	<b>154.0</b>	<b>156.7</b>

Source: Korea National Statistical Office, Statistics DB.



economic structures are different from the ones of other non-Capital region. Because high-tech industries like Taedok Science Park have relatively more advanced than other region. As a result, table 6 shows that Regional Economic Recovery Index (RERI) of the Capital region is over two times as much as one of other regions in 2000. Particularly, large cities have revealed to be at a very low level of economic recovery. It might be due to the fact that the regions were based on declining industries or traditional labor-intensive industries.

**2) Causal relation of regional disparity and economic structure**

Spatial variation in economic declining and

process of overcoming the crisis, Korean production system began to be transformed from Fordism to more flexible post-Fordism. At the same time Korea has entered information society (Lee, 1994). For instance, the growth rate of information technology industries is four times as much as other industries, and their growth has been more accelerated recently. As table 7 shows, the weight of information technology industries in GDP has increased rapidly every year, and it was multiplied from 5.6% in 1995 to 16.1% in 2000. The weight how much they contribute to the growth of GDP increased 19.1% in 1995 to 50.4%. Information technology industries play a role of locomotive for the growth of Korean economy(Lim, 2001).

Table 6. Comparison of RERI<sup>1)</sup> between Seoul metropolitan area and other regions

	1997	1998	1999	2000
Capital Region	14.8	-22.8	0.7	47.2
Other Regions	14.8	-35.9	-4.6	21.9
Large Cities		-29.3	-1.5	19.6
Provinces		-42.2	-8.5	22.3

Note: RERI means Regional Economic Recovery Index  
Source: Park, 2001, p.14.

recovery after the IMF bailout has deepen regional disparity between the Seoul metropolitan area and other regions. Particularly, it should be taken note that the economy of Southeast region, which is one of the core industrial regions with Seoul metropolitan area, is recovering too slowly after the IMF, comparing to Seoul metropolitan area. As mentioned above, it can be explained in terms of the distribution of firm size.

However, regional economic structure is much more significant factor in understanding spatial differentiation of economic deveopment and regional disparity. Production system is very important along with industrial structure in the process of economic recovery. Korean economy already faced the crisis of Fordist mass-production system in the end of 1980s. In the

Especially, Seoul metropolitan area has led the socio-economic changes. But the changes are not complete. An absolute majority of information technology industries concentrates in Seoul metropolitan area including Seoul. 65.2% of employees, 46.5% of establishments and 60.7% of added value in information technology industries are concentrated in Seoul metropolitan area(Lim, 2001).

On the contrary, most other regions show the feeble growth of information technology industries and still have traditional industrial structure. Table 8 and Table 9 shows this situation very well. For example, textiles and footwear manufacturing remain the status of specialized industry in Dague and Pusan. Also, the specialized industry of Ulsan and Cheonnam

Table 7. Growth of IT industries since the 1990s

(Unit : %)

	1995	1999p	2000 1/4~3/4p
Growth rate of IT industries	38.3(8.9)	41.1(10.7)	42.2(10.4)
Weight of IT industries in GDP	5.6	12.7	16.1
Contribution rate of IT industries to GDP	19.1	38.3	50.4

Note 1: IT industries include office machinery, calculator and accounting machinery, semiconductor and communication apparatuses, telecommunication and broadcasting, software and computer related service, except publishing and printing, recorded media, measuring and testing, and other precision instruments manufacturing

Note 2: The growth rate of IT industries is the increasing rate comparing to the same period of previous year, and numbers of parentheses are the increasing rates of GDP.

Source: Bank of Korea, 2000, Analysis of The Spreading Economic Effects of IT Industries, p.7, recited from Lim(2001)

is traditional heavy and chemical industries. Exceptionally location Quotient of Electronic component, television and communication equipment in Kyongbuk is high, because Kumi electronic industrial complex is there. Kyonggi has only a specialized manufacturing, computers and office Machinery. But it does not mean that manufacturing has not developed in Kyonggi; rather, various manufacturing industries has

developed maturely. Today, manufacturing is not so important in Seoul, because service industries including finance, insurance and business activity lead its economy. However, as mentioned above, fordist mass-production system still exists in Korean economy and has a significant weight depending on region.

In this context, the IMF crisis can be seen as an explosion of potential crisis of the existing

Table 8. Regional weight of IT industries

(Unit : %)

	Number of establishment		Number of employee		Added value	
	1990	2000	1990	2000	1990	2000
<b>Large Cities</b>						
Seoul	33.6	34.7	34.1	33.4	23.6	20.2
Pusan	8.3	7.5	4.4	4.1	3.5	3.0
Daegu	5.2	5.2	3.1	2.3	2.6	1.9
Incheon	4.6	5.2	3.8	4.2	2.0	1.9
Kwongju	3.0	3.1	2.1	1.9	1.6	1.4
Daejun	3.2	3.5	1.7	2.0	1.4	1.4
Ulsan	1.5	1.5	1.5	1.4	2.6	2.6
<b>Provinces</b>						
Kyonggi	14.4	16.6	24.5	27.6	36.0	38.6
Kangwon	2.6	2.1	1.6	1.2	1.1	0.8
Chungbuk	2.7	2.6	4.4	4.1	5.2	5.4
Chungnam	3.0	2.4	3.1	3.2	2.9	3.9
Cheonbuk	3.5	2.9	2.3	2.1	1.4	1.5
Cheonnam	3.2	2.4	1.0	0.7	0.3	0.2
Kyongbuk	4.9	4.5	8.2	7.9	13.3	14.9
Kyongnam	5.4	5.1	3.6	3.3	2.2	2.0
Cheju	0.9	0.8	0.6	0.4	0.2	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Korea National Statistical Office, 2000, 1999 Report on IT Industries Statistics.

Fordist mass-production system. This is the most important reason of the regional variation in economic declining and recovery after the IMF bailout. Thus we can say that first of all, the IMF crisis hit the residuals of Fordism in Korea. In terms of region the IMF crisis hit the spatial configuration of the Fordist production system. Therefore regions which were configured to the Fordist production system in the past can but be the most terrible sufferers of the IMF crisis. Of course, Seoul metropolitan area which has the high autonomy of local economy and already entered flexible production system with the high level information infrastructure was also hit by the IMF crisis, but it was a temporary crisis relatively, comparing to other regions. The beginning of crisis was nationwide and its

impact stretched throughout territory, but its end was different depending on regions.

As Table 10 shows, Korea has experienced fundamental changes of economic structure and production-consumption system since the 1990s. Such changes have reconfigured the spatial structure to a new capitalist accumulation system. Seoul in which most headquarters of large enterprises are concentrated is the control tower of national economy, and especially its service economy is very important nationwide. Kyonggi, a part of Seoul metropolitan area is characterized as a region in which high-tech industries such as semiconductor industry are agglomerated in virtue of adjacency of Seoul. This differentiation between Seoul metropolitan area and other regions is exposed in agglomera-

Table 9. Specialized Manufacturing(Location Quotient  $\geq 2$ ) by region

Type of Industry	Employee	Added value
Tabacco Products	J	
Food Products and Beverage	I, L, P	I, J, L, P
Textiles	C, N	B, C, N
Swen Wearing Apprael and Fur Articles	A, B, L	A, B
Leather, Luggage and Footwear	B	A, B, F
Wood and Products of Wood	D, L	B, D, L
Pulp, Paper and Paper Products	F, L	F, K, L
Publishing, Printing and Recorded Media	A, P	A, P
Coke and Refined Petroleum Products	G, K, M	G, K
Chemicals and Chemical Products	M	G, M
Rubber and Plastic Products	F	E, F, I
Non-metallic Mineral Products	I, J, L, P	I, J, L, P
Basic Metals	M, N	M, N
Fabricated Metal Products		B, D
Other Machinery and Equipment	E	E, O
Computers and Office Machinery		H, N
Other Electrical Machinery and Apparatuses		
Electronic Components, Television and Communication Equipment	N	N
Medical, Precision and Optical Instruments		I
Motor Vehicles, Trailers and Semitrailers	E, G	G, L
Other Transport Equipment	G, O	B, G, O
Furniture and Articles	D	D
Recycling	L	D

Note: Seoul: A, Pusan: B, Daegu: C, Incheon: D, Kwongju: E, Daejun: F, Ulsan: G, Kyonggi: H, Kangwon: I, Chungbuk: J, Chungnam: K, Cheonbuk: L, Cheonnam: M, Kyongbuk: N, Kyongnam: O, Cheju: P

Source : Korea National Statistical Office, 2000, Report on Mining and Manufacturing Survey.

Table 10. Changes of Economic Structure and Production-Consumption System

	1970	1980	1990	2000
Economic structure	Heavy and chemical industry		Development of hi-tech industry Growth of finance and service sectors	
Economic policy	Government-leading type		Expansion of capital influence	
Production system	mass-production system		crisis of mass-production and restructuring	
Enterprise	A few agglomerates		Many small-sized subcontracting firms	
Consumption system	Mass-export system		Crisis of mass-export system Expansion of domestic market	

Source: Park, 2000, p.39. (partly revised by author)

tion of high-tech industries or venture companies. The number of establishment and employee of high-tech industries in Seoul metropolitan area is nearly three times as many as in Southeast region (for more details, see Table 11).

The bigger difference between Seoul metropolitan area and other regions come out in the distribution of venture companies. According to Small and Medium Business Administration's

survey, there are 106 agglomerates and 32 agglomerates of venture companies in Seoul and in Kyonggi respectively. This number is 82.6% of total agglomerates in Korea. Ulsan, the biggest industrial city in Korea, does not any agglomerates of venture companies. Kwangju also has no agglomerate of venture companies. The situation of other regions except Daejun is not greatly different from Ulsan and Kwangju.

Table 11. Comparison of agglomeration of high-tech Industries between Seoul metropolitan area and Southeast region  
(Unit: Number, %)

	Establishments	Employees
National total	26,918 (100.0)	601,755 (100.0)
Seoul metropolitan area		
Seoul	23.8	17.1
Incheon	9.5	7.0
Kyonggi	33.1	39.1
Southeast region		
Pusan	6.6	2.6
Daegu	6.1	2.2
Ulsan	1.0	1.6
Kyongbuk	4.2	9.6
Kyongnam	4.7	6.6

Source: Korea National Statistical Office, Statistics DB.

Incheon of Seoul metropolitan area is comparable with Ulsan of Southeast region in the aspect of industrial structure. Both of Incheon and Ulsan are typical industrial cities. However, there are 7 venture agglomerates in Incheon, while Ulsan does not any agglomerates of venture companies. Furthermore, as mentioned above, Incheon has a great number of small-medium sized enterprises, while Ulsan is the industrial city of large branch factories. And also, Incheon is fundamentally different from Ulsan in that it has one of leading port and the largest international airport in Korea.

As a result, the weight of Seoul metropolitan in GDP increase continuously, while the weight of Southeast region has decreased since 1990s (see table 9). Southeast region as an agglomerate area of heavy and chemical industries or an agglomerate area of light industries such as textiles and footwear manufacturing could develop by the mid-1980s. The decline of Southeast region shows the deployment of regional development in Korea

recently very well. Why has this situation occurred? As mentioned above, most other regions except Daejun-Chungchong province have still some elements of Fordist production system, based on the declining industries. In this point, it is very important that the economic forces of Southeast region, which is one of the most major industrial regions with Seoul metropolitan area, have gone down gradually since the mid-1980s. In this context expansion of regional disparity can be seen as a necessary consequence in the process of overcoming the IMF crisis. Thus the present disparity is in the continuum of regional differentiation of industrial readjustment toward the post-Fordist production system after the economic crisis in the end of 1980s from a long-term view.

In the future, Korean economy will be transformed toward flexible production system much fundamentally in the process of economic restructuring to overcome the crisis. At the same time regional structure will be reconfigured in response to such transformation of economy.

Table 12. Agglomerates of venture companies by region (Unit : number)

	Agglomerate	Establishment
Seoul	106	1,104
Pusan	4	63
Daegu	2	9
Incheon	7	55
Kwongju	0	0
Daejun	9	107
Ulsan	0	0
Kyonggi	32	109
Kangwon	1	66
Chungbuk	1	2
Chungnam	1	34
Cheonbuk	0	0
Cheonnam	1	1
Kyongbuk	3	7
Kyongnam	0	0
Cheju	0	0
Total	167	1,557

Source: Ministry of Science & Technology, 2001, Regional S & T Yearbook

Table 13. Weight of gross domestic product by region

(Unit : %)

	Seoul metropolitan area	Southeast region	Southwest region	Daejun Chungchong	Other regions	Total
1970	37.2	30.0	15.3	11.7	5.9	100.0
1975	39.3	30.8	14.1	10.5	5.3	100.0
1980	43.5	30.9	12.0	8.8	4.8	100.0
1985	42.0	31.0	12.3	9.9	4.8	100.0
1990	46.2	29.9	11.0	8.8	4.0	100.0
1995	45.7	29.6	11.3	9.7	3.8	100.0
1999	46.3	28.6	10.9	10.6	3.6	100.0

Note: Southeast region includes Pusan, Daegu, Kyongbuk and Kyongnam, and Southwest region does Kwangju, Cheonbuk and Cheonnam.

Source: Korea National Statistical Office, Statistics DB.

But it doesn't mean that uneven regional development will disappear in front of our eyes. It is only transformed in the process of economic restructuring. Neo-liberal regional policy of Korean government also accelerates a new phase of uneven regional development according to the changes of accumulation system toward post-Fordism. Recent deregulation of protection from concentration in Seoul metropolitan area reflects some changes in the base of regional policy.

## 5. Concluding Remarks

The IMF crisis, which began at the end of

1997, brought the worst suffering to Korean people after Korean War. It greatly shocked almost all aspects of Korean society with the rapid economic downturn. In spite of rapid recovery of Korean economy in general, some regions are not yet out of a swamp of stagnation.

The recent deepening of regional disparity after the IMF crisis can be seen as a process of economic restructuring to overcome it by capital. However, deepening of regional disparity has already been potential in the situation. Its potential situation has continued since the end of 1980s. Production system from Fordism toward post-Fordism (flexible production system) has

Table 14. Regional hierarchy and economic structure in Korea since the 1990s

Region		Regional economic structure
Seoul metropolitan area	Seoul	- headquarter, information technology industry - center of finance, service economy - R & D, venture capital
	Inchoen-Kyonggi	- high value added manufacturing - high-tech industry, semiconductor industry - venture capital, information technology industry
Other regions	Daejun-Chungchong	- R & D, high-tech industry(including IT) - independent small-medium sized firms - branch factories of Cheobul firms
	Large cities	- large-scale branch factories - heavy and chemical industry - traditional labour-intensive industries
	Other provinces	- agricultural economy - large-scale branch factories - traditional labour-intensive industries

been transformed gradually since the 1990s. Socio-spatial relation has already been reconfigured in response to the transformation of economic structure. We can find its symptoms. One of them is the declining of Southeast region and the strengthening of the Capital region (Seoul metropolitan area) centered polarizing. Therefore, it is more important that production system from Fordism toward post-Fordism has been already transformed gradually since the early 1990s. In this context the IMF crisis as an accelerating trigger of such spatial reconfiguration can be said to deepen regional disparity.

Korean government also contributes to deepen this regional disparity through neo-liberal policies. In the process of recovery from the IMF crisis Korean government got rid of regulation policies or relieved them to promote capital investment. Especially, Korean government has tried to reduce its intervention against market and introduce the principle of free competing to regional development policies under the plea of strengthening national competing force. As a result, neo-liberalism is an important factor that deepens the regional disparity. However, this paper has not dealt with the matter of neo-liberal regional policies. Neo-liberalism and the role of capitalist state are very important in the following research on regional disparity.

## Note

- 1) RERI = (Manufacturing Production Index Weight) - (Unemployment Rate Index Weight) - (Default Index Weight) - (Construction Receiving Amount Index Weight) + (Whole Sale, Food and Lodging Sale Index Weight)

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