

The Evolution of Regional Economic Disparities in Korea

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Abstract

Regional economic disparities in Korea are analyzed in this paper using available data on employment, income (measured by gross regional domestic product), and income tax. The conventional claim that regional economic disparities are partly a result of regional favoritism—the interpretation by political geography—is not unequivocally supported at least during the period from 1985 to 2001. Even though one can make a plausible case for regional favoritism before 1985, it is still difficult to fathom out the effect of politics from the effect of economic geography. Regional cleavage between the southwestern and the southeastern part of the country is thus concluded to be a product of politics of regional sentiment rather than a product of regional economic reality. The paper finds, however, a worrisome trend of divergence in regional income disparities between Korea’s Capital region and the rest of the country since 1993. This center-periphery like relationship between the Capital region and the rest of the country poses a great challenge in Korea’s future territorial management.

Key words: 8-10개 정도 뽑아 주십시오. Regional economic disparity, regional favoritism, regionalism, convergence of regional per capita income, politics of regional development, economic geography

Introduction

서식 있음

Regionalism has both good and bad aspects. Regionalism in the sense of regional attachment or identity is a source of regional development. But regionalism in the sense of exclusion and discrimination against other regions is a source of conflict. In an era of globalization, regions as units of political community requires “good” regionalism to adapt to global changes as well as to utilize global forces for their survival. Regionalism in Korea has, however, mainly negative connotations and it is often manifested as antagonism between regions or the resentment of people from a particular region against the power elites in the center. The perceived conflict between Yeongnam (the southeastern part of Korea) and Honam (the southwestern part of Korea) regions is an example.¹ “Bad” regionalism surfaces during election times as people cast votes along local or regional lines. In recent Korean elections, political parties seeking power have explicitly or implicitly used regional sentiments or affiliations to draw supports from voters. Regionalism is thus perceived to be a divisive and harmful element in social integration.

The reasons for the negative perception of regionalism in Korea can be found from in three sources: historical, economic and political. Among these, the economic and political interpretations are more or less widely accepted (Kim Wang-Bae in this volume). Persisting economic disparities between the poor and the rich regions tend to breed frustration and resentment in the poor regions. Especially when these disparities are compounded by regional favoritism by power elites, regional sentiments may turn into a sense of relative deprivation (Kim 1997).² Unfortunately, Korea’s recent history

¹ Since 1997, Korea is has been administratively divided into 6 six metropolitan cities and 9 nine provinces. In political geography, the country is often divided into Honam (Gwangju, Jeonbuk and Jeonnam), Yeongnam (Busan, Daegu, Gyeongbuk and Gyeongnam), and Chungcheong (Chungbuk and Chungnam). The Capital region consisting of Seoul, Incheon and Gyeonggi is not associated with any political factions. The Gangwon-do Province is treated independently, as is the island province of Jeju.

² Hirschman (1973) has termed this phenomenon as a tunnel effect. A sense of relative deprivation is

provides a case for a “bad” regionalism, wherein power elites at the center often mobilize regional sentiments for power consolidation. The politics of regional development at the center sometimes work in a reverse fashion to appease regional resentments in particular regions (the Honam region during the 1980s). These interpretations by the politics of regional development are correct to a certain extent but they often ignore the fact that regional economic inequalities are also partly the result of economic geography. Some regions are better endowed with resources and geographical features favorable for industrial development such as agglomeration economies and coastal locations, whereas other regions are less fortunate in terms of resources and accessibility to outside world. Geographically even development, i.e., achieving the same level of economic development across a country or world, is impossible as long as the economics of geography works out in a market economy. Therefore, both interpretations by the politics of regional development and the economics of geography should be carefully examined with the empirical data on regional economic disparities.

Since other essays in this volume discuss about the political and social and cultural (이정더 교수의 글을 엄두한 표현입니까?) dimensions of regionalism, I will focus on the economic dimension and, in particular, regional economic disparities, their trajectory over the past forty years, and their causes. The central question in my analysis is whether regional favoritism by the power elite has made produced any visible effects in regional economic disparities. An allied question is whether the perception of regional disparities has contributed to the convergence of regional income over time. In answering these questions, I will reexamine interpretations posited by the politics of regional development and the economics of geography. One major caveat of the analysis in this paper arises from inadequate data both in terms of variables and the number of cases. The results of the analysis are therefore subject to different interpretations.

more intense in Korea than other countries because of a strong egalitarian consciousness (Kim 1997).

Economic Development Phases and Uneven Territorial Development³

서식 있음

Export-oriented Development Strategy and the Promotion of Heavy and Chemical Industries (1963-1979)

Since the Korean War at the beginning of the 1950s, Korea has made remarkable economic achievements. Its development pattern has, however, produced marked sectorial imbalances and territorial disparities and favored population ~~polarization~~ concentration in some metropolitan areas. In the 1950s, Korea was a poor, agrarian society. The level of urbanization was at a mere 28% in 1960, ~~concentrated in~~ in a few major cities. The period from 1963 to 1979 under the authoritarian political regime of Park Chung-eong H-hee (1963-79) can be divided into two phases: from 1963 to 1970 and from 1971 to 1979. During the 1960s, the Korean government took an export-oriented strategy utilizing its inexpensive, and-yet diligent labor force. Textiles, apparel, shoes and plywood industries were promoted as export industries and they were located in the bigger cities, such as Seoul, Busan, Daegu and Incheon. The growth of labor-intensive manufacturing in large cities in turn drew migrants ~~ion~~ from rural areas. The rapid industrialization in the 1960s and the 1970s was possible at the sacrifice of the rural sector and the urban workers. The suppression of agricultural prices for urban wageworkers adversely affected rural household incomes in the late 1960s and the latter half of the 1970s (Park 1998).

In the early 1970s, shaken by the first oil crisis, the Korean government ~~took~~ adopted a development strategy emphasizing the heavy and chemical industries. Together with ~~an~~ the expansion of transportation and communication networks, the government promoted the development of large industrial bases to accommodate steel, non-ferrous metal, machinery, shipbuilding, electronics and chemicals. These large industrial complexes were constructed in the cities of Gumi, Pohang, Ulsan, Changwon, Geoje and Yeochon in the southeastern part of the country. Industrial deepening pursued

³ Korea's economic development phases can be constructed differently depending on the purpose of the analysis. From the political economy perspective, the period from the early 1960s to 1979 under ~~the~~ Park's rule can be characterized as a state-led autocratic development phase. During the period from 1980 to 1992, it was a state-capital collusive and still autocratic development. The period from 1993 to present may be considered as a phase of the democratization of development with partial decentralization (Kim 1999). Focusing more on ~~the~~ spatial development, we can divide the phases into three: ~~an~~-accelerated urban industrial growth (1963-1984), globalization (1985-1997), and the financial crisis and recovery (1997-present) (Douglass, 2000).

during the 1970s had social and economic consequences (Haggard and Moon 1993). The bias toward heavy industry and the creation of general trading companies produced a high level of business concentration ~~into to a few the~~ hands of a few chaeboljaebeol, the owners of which ~~are were~~ mostly from the Yeungnam Yeongnam region. In terms of regional distribution, the construction of those industrial complexes undoubtedly generated fast manufacturing growth in the southeastern part of the country. The major rice-supplying southwestern part of the country (Jeonnam and Jeonbuk) was largely left out ~~from of~~ this massive drive towards industrialization in Korea. In addition, the concentration of population and economic activities in Seoul ~~were as~~ perceived to be a problem and several measures including ~~the a~~ containment policy ~~was were~~ pursued by the government (Korea Research Institute for Human Settlements 1996).

Towards a Structural a Adjustment (1980-1992)

The heavy and chemical industries promotion ~~of~~ policy of the 1970s gave rise to sectorial and territorial imbalances. In the mid-1980s, the export of heavy industry surpassed that of light industry. The bipolar pattern of development concentrated ~~ing~~ in the Seoul Capital ~~r~~egion and the southeastern part of the country was more or less entrenched in the early 1980s. However, the appreciation of the Korean currency and the rise of wages drastically weakened the competitiveness of exports ~~since after~~ the 1985 Plaza Accord. Labor-intensive industries such as footwear, toys, textiles and apparels moved to Southeast Asian countries for cheap labor, impacting such cities as Busan and Daegu, ~~which were which had~~ specialized in those industries. These factors forced Korean manufacturers to target more high value-added production. The government under the leadership of Chun Du-~~h~~-Hwan (1980-88), who succeeded Park Chung-~~h~~-Hee, reoriented its industrial policies in the early 1980s, supporting the transformation of the industrial structure toward technologically intensive industries and R&D research and development activities. Seoul and Gyeonggi-~~do~~ province took advantage of this policy shift. Another important change that took place in the early 1990s was the rapid growth of the service sector in the national economy. From 1990 the manufacturing sector began to decline in terms of employment, while the service sector became the leading sector for employment growth. Over the same period, modern manufacturing industries such as electronics, automobile and semiconductor industries marked a dramatic growth, while more traditional manufacturing industries such as textiles, shoes and apparels recorded sluggish growth.

Industrial structural changes from the late-1970s to the early 1990s were also punctuated with important political changes. The infamous May 1980 Gwangju massacre of citizens by military forces left a deep scar in people's minds and deepened anti-government sentiments. Regional sentiments, particularly from in the Honam region, hardened against the power elites from the Youngnam Yeongnam region. As a token for of balanced regional development and more accurately as an effort to reduce the political burden (Gwangju massacre), the Chun administration designated a few national industrial complexes in Gwangyang and Daebul in Jeonnam Province. The 1988 Olympic Expressway was built as a symbolic effort to build a linkage between the Honam and the Youngnam Yeongnam regions (Hong 1997). In accordance with the economic strategy of industrial restructuring, the government implemented a policy favoring lagging regions and built numerous local and rural industrial estates throughout the 1980s. The June 1987 democracy movement brought a change in the political leadership from Chun Du-hwan to Roh Tae-woo, who was a military general sharing with the same regional background with as Chun Du-hwan. Recognizing the widespread resentment against the dictatorial rule and the growth-first policy, the Roh administration attempted various welfare-oriented policies as well as promoted balanced regional development, adopting investment policies favoring the Honam region and other lagging regions (Korea Research Institute for Human Settlements 1996).

Globalization and Market Reforms (1992-1996)

Kim Young-sam, who was from the Busan-Gyeongnam area, won the 1992 presidential election, ending the a long period of military rules in Korea. During the Kim Young-sam administration, important steps were taken towards a freer economy and a more democratic society. Over the same period, Korea became an active member in multilateral trade negotiations and in the Uruguay Rounds. In December 1996, Korea joined the Organization for Economic Co-operation and Development (OECD). Open competition became the new byword in Korea's internal and external policies. This approach towards the globalization of the Korean economy favored the industrial restructuring process, which emphasized technology and labor flexibility. The Seoul eCapital region fared much better than other regions because of its specialization in high-technology industries. Labor-intensive industries tended to relocate abroad while the government encouraged direct foreign direct investment by making bureaucratic procedures more apparent transparent. The year 1995 has special importance

significance in Korea's territorial regional politics. It saw the direct election of mayors, governors and council members by local residents. The state-led development planning and implementation began to be partly decentralized to regional authorities from that year. Regions with more fiscal resources took advantage of this decentralization process.

The 1997 fFinancial eCrisis and rRecovery (1997-~~present~~Present)

In the period from 1997 to 1999, Korea faced the worst economic crisis since the end of the Korean War. In November 1997, the rise of foreign debt forced the Korean government to request a bailout from the International Monetary Fund. A few months later, the Korean currency was devalued by nearly half. The gross domestic product decreased for the first time in 18 years. Unemployment rose from 2.6 percent in 1997 to 7.0 percent in 1998. The combination of high interest rates with the reluctance of banks to lend to entrepreneurs caused a massive credit crunch and a severe recession. To cope with the problem, the government led by Kim Dae-jung-Joong, who was the first president from the Honam region in the modern history of Korea, took reform measures targeted at ~~the~~ four areas: the financial sector, the enterprise sector, the labor market and the public sector. The government also tried to increase its reserve of foreign currency by attracting direct foreign-~~direct~~ investment through the removal of restrictions and the opening of the real estate market. Rapid ~~E~~conomic recovery ~~was fast~~ has taken place since 1999 and ~~the~~ unemployment rate was reduced from 7 percent in 1998 to around 3 percent in 2002.

The impact of the crisis and the recovery afterwards was, however, uneven between among the sectors and regions. Traditional manufacturing sectors such as food, textiles and apparel suffered greatly, whereas non-traditional manufacturing sectors such as electronics, computers and telecommunication industries endured (Kim 2000). Producer-related services such as banking and accounting grew fast, while more traditional services declined. Cities and provinces that ~~were had~~ specialized in traditional manufacturing and heavy industries lost their economic vitality, whereas cities and provinces with modern manufacturing and advanced services recovered quickly. In general, the crisis and the consequent economic recovery deepened the spatial polarization concentration of income and wealth mainly in Seoul and Gyeonggi province.

Indicators of Regional Economic Disparities

The absence of consistent and reliable data on regional economic indicators precludes any rigorous analysis on the causes of the regional economic disparities. The following analysis is an attempt to put the pieces together so as to draw reasonable inferences. The major indicator used is the gross regional domestic product (GRDP) produced by the National Statistical Office of Korea. However, ~~the~~ data is ~~only~~-available only from 1985 and therefore other indicators like manufacturing employment are used to measure regional disparities before 1985. Caution is also necessary in reading the statistics on GRDP, because the regional income produced is not equal to the regional income received. Profits and income streams produced by plants in provincial areas are largely transferred to corporate headquarters in Seoul. To gauge the impact of the politics of regional favoritism, I mainly use the government policy of industrial complex development.⁴ Broadly the government uses two kinds of industrial complexes or estates: national and local industrial estates (KRIHS 1996; Hong 1997).⁵ In this paper, it is assumed that national rather than local industrial complexes better represent ~~better~~ regional favoritism by the central power elites, ~~if it exists, there is any~~. Considering that transportation is another policy variable, which can affect regional economic development, road building is also used as an indicator for regional disparity.

Regional ~~e~~Economic ~~d~~Disparities before 1985

The period from 1963 to 1979 marks the formative years of industrial development in Korea and yet it was critical in shaping the economic geography of Korea. It was also a period ruled by an authoritarian government, represented by Park Chung-~~H~~hee, who was born in Seonsan, Gyeongbuk ~~P~~province and educated in Daegu. An import substitution strategy in combination with an export promotion strategy emphasizing light industry and the promotion of heavy and chemical industries were used to transform an agrarian economy into an industrial economy. Large cities with a sufficient

⁴ Another justification ~~for not to not~~ including ~~e~~-local industrial estates is that local estates are built for the purpose of ameliorating regional economic inequalities and therefore their geographical distribution is more or less even. Furthermore, central government subsidies to these local estates are smaller than those ~~for given to~~ national industrial estates.

⁵ ~~Differently~~ from the industrial location policy during the 1960s and the 1970s, the government actively promoted local industrial estates to achieve ~~a~~-more balanced regional development during the 1980s and the 1990s. These local industrial estates were smaller in size than their national counterparts and they were not as successful as the national estates (KRIHS 1996.)

supply of labor were the natural sites for export-oriented labor-intensive industries. Light industry export bases were built in Guro (Seoul), and Bupyeong (Incheon) in the mid-1960s. Busan and Daegu were also the sites for textiles, apparels and plywood industries. During the 1970s, large industrial complexes were constructed in Gumi, Pohang, Ulsan, Geoje, Changwon, and Yecheon to develop heavy and chemical industries. Free export zones were also established in Masan and Iksan. The territorial consequences of these industrial strategies were a polarization the concentration of manufacturing employment growth in the Seoul Capital region and Gyeongnam and Gyeongbuk provinces (Table 1). Although other provinces like Gangwon, Chungbuk, Chungnam, Jeonbuk and Jeonnam experienced positive manufacturing employment growth, they did not fare well in terms of absolute numbers. Furthermore, all of these provinces except for Chungnam lost their population during 1966-1985 through outmigration out of those provinces.

Out of the net manufacturing employment increase in the country (1,871,332 persons), 33.1% went to Gyeonggi province and 16.2% to Seoul. In other words, the Capital region (Incheon was not separated from Gyeonggi Province in 1966) absorbed 49.3% of the manufacturing employment growth, whereas the Youngnam Yeongnam Region region absorbed 29.6%.⁶ A remarkable increase in manufacturing employment in the Gyeonggi Province demonstrates agglomeration economies working in the Capital region. Without a doubt, one can say that the Capital Region and the Youngnam Yeongnam region benefited partly by the government policy promoting exports and heavy and chemical industries. However, it is difficult to separate the effect of geography from politics. Seoul, Busan, Daegu and Incheon were large cities having with agglomeration economies. Promoting labor-intensive export industries in those cities was perhaps the most realistic option to for increasing e-exports. Different interpretations are, however, possible with regards to the selection of sites for the heavy and chemical industries. The government planners' efficiency argument is acceptable to the extent that port cities in the southeastern part of the country provided better sites for heavy and chemical industries, which had to use imported raw materials (Hong 1997). Pohang, Ulsan and Changwon can be regarded to have met those conditions especially in terms of infrastructure and industrial base. The selection of Gumi, however, was not fully justified in terms of objective criteria for site selection for the an electric and electronics industry complex. On the whole, one can argue that the concentration of

⁶ The YoungnamYeongnam region can be further divided into two: the TK region (Daegu City and Gyeongbuk Province) and the PK (Busan and Gyeongnam) regions. Presidents Park Chung-hee, Chun Du-hwan, and Roh Tae-woo are were all from the TK region, whereas President Kim Young-Sam is was from the PK region.

industrial and infrastructure investment in the YoungnamYeongnam region by policymakers during the 1970s reflected a mix of both an orientation toward efficiency-orientation as well as regional favoritism.

Regardless of the workings of regional favoritism, regional income disparities seemed to have declined during the course of export-oriented industrialization, suggesting that either market forces or government policies helped to contribute to the closing of the economic gap across regions in Korea. One can easily guess that the political liability of the Chun ~~Du~~-Du-hHwan and Roh Tae-~~w~~-Woo regimes helped to bring about more or less equal distribution of public investment funds across the country during the 1980s. According to the estimated trend of regional income disparities by both Mera (1988) and Byun (1999), regional income disparities peaked around the late 1960s and declined afterwards until the early 1980s.⁷ Despite a tendency of polarization concentration in the Capital ~~r~~region and the YoungnamYeongnam region, the surge of manufacturing growth and massive migration from rural to urban areas during the 1960s and the 1970s helped reduce regional income disparities in Korea. In this respect, the regions with lesser lower incomes at least until 1980s had a hopes to of catching up with the prosperous regions at least until 1980s.

Table 1. Population and Manufacturing Employment Change across ~~r~~Regions, 1966-85

	Population (1,000 persons)		Change (%)	Employment (1,000 persons)		Change (%)
	1966	1985	1966-85	1966	1985	1966-85
Seoul	3,793	9,626	153.8	180	483	167.8
Busan	1,426	3,512	146.3	103	368	258.2
Gyeonggi	3,102	6,178	99.2	52	671	1195.8
Gangwon	1,831	1,724	-5.8	13	22	68.5
Chungbuk	1,549	1,390	-10.3	14	50	262.1
Chungnam	2,903	3,000	3.3	33	94	183.7
Jeonbuk	2,521	2,201	-12.7	29	62	113.6
Jeonnam	4,049	3,748	-7.4	36	70	94.0
Gyeongbuk	4,473	5,038	12.6	72	293	306.0
Gyeongnam	3,175	3,515	10.7	31	321	948.5
Jeju	337	488	44.8	4	4	-0.8
Nation	29,160	40,420	38.6	567	2,438	330.2

⁷ Mera (1988) estimated regional income disparities as follows using the coefficient of variation: 0.369 in 1961; 0.309 in 1965; 0.339 in 1970; 0.256 in 1974; 0.208 in 1978; and 0.192 in 1983. On the other hand, Byun (1999), adopting the same measure of the coefficient of variation to gauge the dispersion of regional income, came up with the following figures:

1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
.2478	.2006	.2892	.3401	.4298	.4008	.3216	.3265	.2751	.2671	.3364	.2799	.2736
1976	1977	1978										
.2763	.2653	.2279										

Source: Economic Planning Board (1967, 1986), Population Census and Report on Mining and Manufacturing Survey.

Regional Economic Disparities after 1985

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As discussed in the literature on regional income convergence (or divergence), regional income disparities tend to rise during the ~~period of~~ early development stages (Williamson 1965; Amos 1988; Sala-i-Martin 1996). But they tend to decrease as the national economy matures. For example, in the U.S., Japan, and ~~other the~~ advanced economies of Europe, we observe regional income inequalities to have declined over time (Table 2). The hypothesis of regional income convergence is, however, affected by political systems as well. Henderson (1988), for example, ~~found out~~ that a federal system tends to produce lesser regional income inequalities, whereas a unitary system is more prone to generate ~~larger~~ greater regional income inequalities.

Table 2. Estimates of Convergence of Regional Per Capita Income

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Country	Regional Income Inequality (σ -convergence)			
	1940	1950	1970	1990
U.S.	0.35	0.24	0.17	0.17
Japan	0.63	0.29	0.23	0.15
Germany	-	0.31	0.20	0.19
France	-	0.21	0.17	0.14
Italy	-	0.43	0.33	0.27

Source: Adapted from Armstrong and Taylor (2000), p. 83.

Differently from the experience of advanced economies, Korea after 1985 reveals a trend of widening regional income disparities especially after 1993, as shown in Figure 1. Such a trend is not only unexpected but also worrisome, because it indicates that balanced regional development policies adopted by the government during the 1970s and the 1980s did not work effectively. More troublesome is that differentials in per capita income (measured by gross regional domestic product) rates rose over time (Table 3). For example, during the period from 1985 to 1992, the difference between the fastest growing region and the slowest growing region was 4.8 percent. The difference, however, increased to 9.7 percent during the period from 1997 and 2001. It is interesting to observe that the growth rate differential between the regions was the largest during the Kim Dae-Joong administration (1998-2002), while it was smallest under the Chun Du-h Hwan (1980-1987) and Roh Tae-Tae-w Woo administrations (between

1988 and 1992).

FIGURE 1

If we accept the claim that regional favoritism has been working in government development policies, we ~~could~~ can expect ~~that~~ the regions that produced the leadership to have benefited from the policies more than other regions and thus recorded higher per capita income growth. The facts, however, indicates that such expectations does not hold. During the period from 1985 to 1992, when two ~~formers~~ generals from the Daegu-Gyeongbuk area (the so-called TK faction) ruled the country, the largest growth was seen in the provinces of Jeonnam and Chungnam provinces. Daegu (the TK stronghold) and Busan (the PK stronghold)⁸ experienced below average growth rates, although Gyeongbuk and Gyeongnam recorded relatively high growth rates. During the Kim Young Sam administration (1993-1997), regional per capita income growth rates diverged, indicating the further worsened position of Daegu and Busan. In contrast, Chungbuk, Chungnam and Jeonnam provinces made a recorded rapid growth.

The period from 1997 to 2001, which roughly coincides with the term of the Kim Dae Joong Dae-jung government, ~~was~~ is exceptional in terms of regional per capita income growth rate differentials. The 1997 crisis was a fatal blow to the national economy as a whole and in particular to regional economies specializing ed with in traditional manufacturing industries or composed of branch plants. Busan, Daegu and Incheon were the cases in point (Kim 2000). The survivors in the crisis were Gyeonggi and Gyeongbuk, which had more advanced manufacturing sectors than the other regions did. During the whole period from 1985 to 2001, Gyeongbuk, Jeonnam and Chungnam provinces experienced the fastest growth rates in their per capita income, while Incheon, Daegu and Busan recorded ~~the~~ the lowest growth rates. These cities have the common characteristics of being specializing ed in labor-intensive industries and having proportionately more small- and medium-sized firms.

In sum, as manifested revealed in the comparison of the three ~~sub~~ periods,

⁸ In the old romanization system, Daegu-Gyeongbuk and Busan-Gyeongnam were written as Taegu-Kyongbuk and Pusan-Kyongnam, respectively.

1985-1992, 1992-1997 and 1997-2001, the influence of the domestic politics of regional development seemss to have been waning-its influence as the country has been gradually integrated-with into the global economy. The economics of geography in terms of agglomeration economies and industrial clusters played a greater role in regional economic restructuring than government policies did.

Table 3. Per eCapita eAnnual GRDP eGrowth eRate, 1985-2001

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	1985-2001	1985-92	1992-97	1997-2001
Nation	6.49%	8.52%	5.90%	3.75%
Seoul	5.88%	8.71%	5.02%	2.15%
Busan	5.13%	6.00%	4.92%	3.89%
Daegu	4.62%	7.68%	3.71%	0.56%
Incheon	4.18%	6.04%	4.11%	1.11%
Gyeonggi	6.74%	7.75%	3.90%	8.59%
Gangwon	5.16%	6.94%	7.89%	-1.11%
Chungbuk	6.55%	6.62%	9.50%	2.85%
Chungnam	7.59%	10.17%	8.43%	2.23%
Jeonbuk	5.56%	7.45%	6.46%	1.26%
Jeonnam	7.71%	10.83%	8.50%	1.51%
Gyeongbuk	8.31%	9.40%	7.99%	6.80%
Gyeongnam	6.81%	9.36%	6.69%	2.62%
Jeju	5.40%	8.72%	3.80%	1.75%
Stdev ¹⁾	0.013	0.015	0.021	0.026
Average ²⁾	0.061	0.081	0.062	0.026
CV ³⁾	0.207	0.19	0.335	0.978
Maximum- m Minimum	4.1	4.8	5.8	9.7

Source: National Statistical Office of Korea (2003).

1) Stdev: standard deviation; 2) Average: average of regions; 3) CV: coefficient of variation.

Regional Economic Disparities: Unconditional and Conditional Convergence

According to the neoclassical growth model, regional disparities in per capita incomes should converge over the long run (Richardson 1978; Armstrong and Taylor 2000). This will occur because capital will flow from high-wage to low-wage regions and labor will flow in the opposition direction. In addition, poor regions can benefit from technology catch-up. It is thus hypothesized that β -convergence occurs when poor regions grow faster than rich regions. This implies a negative relationship between the growth of per capita income and the level of per capita income at the start of the period. As illustrated

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in Figure 2, there is no statistically significant relationship between the growth rate of per capita income and the initial level of income in Korea. The sign is negative but very small, indicating no convergence in regional per capita income over the period from 1985 to 2001. Although the short period of time may be a reason for this anomaly, there may be some other reasons.

FIGURE 2

In order to probe into the divergence of convergence in regional income disparities over the period ~~from~~ between 1985 to 2001, a simple regression model was constructed as follows:-

$$PCGRDPGROW = a + b_1 PCDRDP + b_2 AGEMP + b_3 POLICY$$

- PCGRDPGROW: per capita annual gross regional domestic product growth rate between 1985 and 2001
- PCGRDP: per capita gross regional domestic product in 1985
- AGEMP: percentage of agricultural employment in total employment in 1985
- POLICY: national industrial parks constructed (measured in terms of area)

The regression results are summarized below.

$$PCGRDPGRO = 4.882 + 0.0072 PCGRDP + .0235AGEMP + 0.000012POLICY$$

(2.542) (.015) (1.857) (1.726)

$R^2 = .562$

Figures in parenthesis are t-ratios.

The regression result suggests ~~a~~ the positive effect of “percentage of agricultural employment” on “per capital income growth,” whereas “initial level of per capita income” has no significant effect on “per capita income growth.” Since “initial level of per capita income” does not have a statistically significant correlation with the “percentage of agricultural employment,” the Korean case shows a different catch-up process. It is not the initial level of income but the initial level of agricultural employment that is significant. The Rregions with a higher proportion of agricultural

employment might have gone through faster transition from an agricultural economy to an industrial economy.⁹ As shown in Table 4, another variable affecting regional per capita income is population change. The three provinces of Chungbuk, Chungnam and Jeonnam, which registered the highest manufacturing growth, ~~did~~ either lost some of e their population or posted lower than the national population growth rate ~~during the~~ period from 1985 to 2000. This is consistent with the general observation that per capita regional income differentials arise from differences in the industrial mix, where the agricultural sector usually posts the lowest labor productivity and the manufacturing sector accords with higher labor productivity. Therefore, regions undergoing a rapid industrial transition (positive) and population transition (negative or stagnant) will catch up faster with higher per capita income regions. This does not mean, however, an increase in regional economic power.

Table 4. Population and Manufacturing Employment Change between 1985 and 2000

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	Population (1,000 persons)		Change (%)	Employment (1,000 persons)		Change (%)
	1985	2000	1985-2000	1985	2000	1985-2000
Seoul	9626	9854	2.4	482.7	279.3	-42.1
Busan	3512	3655	4.1	368.1	184.6	-49.8
Daegu	2028	2474	22.0	152.4	128.3	-15.8
Incheon	1385	2466	78.1	174.7	208.1	19.1
Gyeonggi	4793	8938	86.5	495.9	747.6	50.8
Gangwon	1724	1485	-13.9	22.2	32.3	45.4
Chungbuk	1390	1463	5.3	49.7	104.1	109.7
Chungnam	3000	3206	6.9	94.4	167.0	77.0
Jeonbuk	2201	1887	-14.3	62.2	73.0	17.5
Jeonnam	3749	3345	-10.8	70.2	114.3	62.9
Gyeongbuk	3010	2716	-9.8	141.1	205.7	45.8
Gyeongnam	3515	3983	13.3	320.8	403.8	25.9
Jeju	488	513	5.1	3.8	4.3	12.2
Nation	40420	45985	13.8	2438.0	2652.6	8.8

Source: National Statistical Office of Korea (2003).

The positive sign of the variable POLICY indicates the plausibility of ~~a~~ the positive effect of government industrial location policy on per capita regional income growth, especially through the construction of large industrial complexes.¹⁰ Unfortunately, the

⁹ With the exception of Incheon, the large urban economies of Seoul, Busan and Daegu registered negative manufacturing employment growth between 1985 and 2000. Since these urban economies ~~have been~~ underwent a deindustrialization process during ~~the that~~ that period, growth in the service sector had a more critical impact on the per capita income.

¹⁰ Since Due to the time lag effect of the industrial estates on the regional economy, the policy variable includes all national industrial estates built since the 1960s. National industrial estates established during the period from 1964 to 2000 are summarized in the following table.

policy effect is not robust because of low statistical significance, eliminating the possibility of further inquiry about the effect of regional favoritism on the divergence or convergence in regional income disparities. On the whole, a few poor regions (low per capita income in 1985) such as Chungnam and Jeonnam made a significant strides in terms of per capita income growth, whereas the poor large cities of Daegu and Busan and the poor provinces of Jeonbuk and Gangwon did not catch up with other regions in terms of per capita income. The politics of regional development, if there were any during the period from 1985 to 2001, cannot be strongly ascertained either from the regression results or a simple diagram shown in Figure 3. The strongholds of the TK and PK regions, namely Daegu and Busan, remain poor and slow growing regions, although Gyeongnam and Gyeongbuk, which are part of the PK and TK regions, post a significant improvement in their position in terms of per capita regional income. Relatively high growth rates accorded to Gyeonggi and Chungbuk suggest that the dynamics of regional income disparities in Korea has have been working along the lines posited by the theories of economic geography beyond the politics of regional development.

FIGURE 3

Notes: Cities and provinces are abbreviated as follows: Seoul, SO; Busan, BS; Daegu, DG; Incheon, IC; Gyeonggi, GG; Gangwon, GW; Chungbuk, CB; Chungnam, CN; Jeonbuk, JB; Jeonnam, JN; Gyeongbuk, GB; Gyeongnam, GN; and Jeju, JJ. In terms of political factions, Daegu and Gyeongbuk represent for the TK region, Busan and Gyeongnam for the PK region, and Jeonbuk and Jeonnam for the Honam region. Chungbuk and Chungnam constitute another faction led by Kim Jong-pil (which has been was significantly weakened in the 2002 presidential election).

In addition to the variables listed in the equation, other structural variables, such as the

	1960s	1970s	1980s	1990s	Total		1960s	1970s	1980s	1990s	Total
Seoul	1				1	Chungbuk			1	1	2
Busan			1		1	Chungnam	1		1	2	3
Daegu					0	Jeonbuk	2	2	1	1	5
Incheon	1		1		2	Jeonnam	1	3	1	1	5
Gwangju				2	2	Gyeongbuk	2				2
Daejeon					0	Gyeongnam	5	1	1	1	7
Gyeonggi		1	1	2	4	Jeju					0
Gangwon		1			1	Total	2	13	10	10	35

Source: Korea Industrial Estate Administration (2003).

Note: Gwangju and Daejeon are were included in Jeonnam and Chungnam, respectively, before 1989.

share of manufacturing in total regional employment and the share of high school graduates and above graduates in the total regional population reflecting the quality of human resources, were also considered to test the effects of these structural variables on per capita regional income growth. These variables are highly correlated highly with the share of agricultural employment (AGEMP) and do not render expected signs results when they are included in the equation. Another policy variable, transportation investment, which could reflect the regional bias of government policy, if there were any, are considered but dropped-out due to their high correlation with the variable, AGEMP.¹¹

Other Indicators of Regional Economic Disparities

Per capita gross regional domestic product used in the foregoing analysis may not represent real income differentials between regions since it essentially measures the income produced in a region instead of income received by the residents of that region. The low per capita GRDP of Seoul, Incheon and Gyeonggi Province, as compared to the nation as a whole, presents an unusual anomaly in relation to OECD countries (OECD 2001). With 46.2 percent of the national population, the Capital Region only produced 48.0% of the gross national domestic product. This is exceptional in the respect sense that the Capital Region with a heavy concentration of advanced manufacturing industries and producer services and boasting agglomeration economies recorded low per capita gross regional domestic product. Partial evidence from tax collections, which shows Seoul to be paying almost three times the per capita average for the nation, indicates that the GRDP figures underestimate the level of income produced and captured received by Seoul. As shown in Table 5, income tax per capita is lowest in the agricultural provinces of Jeonnam and Jeonbuk, suggesting the claim that the poor regions stay poor. Although the time period coverage is short, the figures indicate a diverging trend in per capita income tax over the period of from 1995 to 1998. It would seem that the financial crisis has contributed to the widening income disparity between the cities and the provinces of Korea.

Table 5. Per Capita Income Tax

¹¹ A similar exercise is done performed in the analysis of regional income disparity in China by Demurger et. al. (2002).

	National = 100			
	1995	1996	1997	1998
Seoul	218.6	220.8	234.9	267.0
Busan	95.3	94.8	89.4	80.5
Daegu	89.1	83.2	83.4	77.2
Incheon	66.1	85.4	58.3	47.0
Gwangju	78.9	70.5	76.3	73.0
Daejeon	72.0	71.6	68.5	61.7
Gyeonggi	62.6	56.6	60.4	50.3
Gangwon	47.6	48.0	50.0	44.6
Chungbuk	55.0	54.3	50.3	44.4
Chungnam	43.6	45.3	44.4	38.7
Jeonbuk	47.7	46.5	45.1	40.6
Jeonnam	30.6	38.1	32.1	27.5
Gyeongbuk	59.9	60.6	53.2	42.6
Gyeongnam	65.2	68.8	62.5	52.1
Jeju	63.0	63.9	63.1	63.7
Minimum	30.6	38.1	32.1	27.5
Maximum	218.6	220.8	234.9	267.0
Maximum/minimum	7.1	5.8	7.3	9.7

Source: National Tax Service (2000).

Further evidence on the regional incidence of poverty supports the inadequacy of GRDP representing ~~for~~ regional incomes. As shown in Table 6, the share of poor households is highest in Jeonnam and Jeonbuk, whereas Seoul and Gyeonggi have a lesser lower proportion of households below poverty. These figures are also consistent with the government statistics on the share of households receiving government subsidies.

Table 6. Regional Incidence of Poverty, 1997

City and Province	Share of Poor Households (%)*	Share of Households Receiving Government Subsidies (%)
Seoul	8.8	1.32
Busan	15.3	2.24
Daegu	16.8	6.52
Incheon	14.8	0.00
Gwangju	24.7	19.23
Daejeon	17.6	4.05
Gyeonggi	11.3	1.07
Gangwon	29.5	1.04
Chungbuk	31.9	7.56
Chungnam	29.3	9.77
Jeonbuk	35.1	27.83
Jeonnam	44.3	30.36
Gyeongbuk	37.4	11.58
Gyeongnam	37.4	1.46
Nation	20.6	6.46

Source: Daewoo Economic Research Institute (1997) for the figures on the share of poor households and National Statistical Office (2003) on “the persons under the livelihood protection program.”²³

* Percentage of households with less than 50% of the median monthly household income. The median household income was 769,000 won in 1997.

In sum, such indicators as per capita income tax and the incidence of poverty provide counter evidence to the regional income disparities measured by the gross regional domestic product. However, these indicators do not enable us to test the convergence or divergence of regional economic inequalities. One can, however, conclude with a reasonable confidence that Jeonnam, Chungbuk and Chungnam provinces, which ranked favorably in terms of per capita GRDP growth rates, are not really rich provinces. Further investigation is thus called for needed to construct accurate measures of regional income disparities.

Regionalism and Politics of Regional Development

The foregoing discussion on regional economic disparities suggests that regional income disparity measured by the gross regional domestic product could have been partly affected by government policies that may have some elements of regional favoritism. The evidence revealed by the analysis based on per capita regional GRDP during the period from 1985 to 2001, however, is not robust enough to support the claim that the TK or PK regions were favored by the ruling elites who came from these regions. Even if we stretch our inference to accept a the positive policy effect on regional incomes, there is no reasonable way to fathom figure out the effect of geography and politics. In the current economic geography of Korea, economic disparities between the Capital Rregion and the rest of the country are more critical than the regional cleavage cleavage between Youngnam Yeongnam and Honam as assumed by students of political geography. Another serious problem facing Korea is the divergence in regional economic disparities, whether measured by per capita GRDP or per capita tax. As discussed in the σ -convergence graph (Figure 2), regional economic disparities are have been widening since 1993. The trend is particularly worrisome after the 1997 crisis. Regional differentials in manufacturing growth is known to have contributed most to the divergence in per capita regional GRDP (Min 2002). The concentration of manufacturing growth in Gyeonggi Pprovince has indeed been

phenomenal after 1997.¹² A larger problem that needs to be addressed is the increasing economic gap between the Capital Region and the rest of the country. Discrimination against the Honam region or favoritism towards Youngnam the Yeongnam region is not a major problem from a global perspective. In conclusion, as some analysts argue (Sohn and Kang in this volume), the regional cleavage revealed in Korea is is more a product of the politics of the power elites to utilize regional sentiments than purely a product based on of objective regional economic disparities. The highly centralized power structure, the near monopoly of top political and bureaucratic positions by a the regional faction in power, and the vertical relationship between the center and the local seem to be the root causes of “bad” regionalism in Korea. The path towards resurrecting “good” regionalism in the this era of globalization lies in knowing how to reorganize the power structure of the country, reform the elite recruitment system, and implement the decentralization process, all of which require a strong commitment and genuine will rather than mere rhetoric. At the regional level, it is more important to build a resilient regional economies y mobilizing local resources including the positive elements of regionalism, so as to survive from the increasing pressures of the globalization processes.

¹² The share of Gyeonggi-do province in total national manufacturing production increased from 26.8% in 1997 to 36.4% in 2000 (Min 2002).

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