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Development and Its
Policy Implications*

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Hong Kong Institute of Asia-Pacific Studies

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Abstract

In this paper, an attempt is made to give an overall and comprehensive analysis of the historical evolution of China's regional economic development and its policy implication. Compared to the East region, the development of the Middle and West lagged far behind in their standing during the 1950s. Since the First Five-year Plan, particularly in the period of the 1960s until the beginning of the 1970s, the deterioration of Sino-American and Sino-USSR relations entailed the consequent political economy of the Mao Zedong's, the effect of which placed an emphasis on the Third Line reconstruction (secluded strategic locations). As a result, the economic development of the Middle and West were able to make big progress. However, after 1979 with the economic reforms and opening policy and their objective of raising economic efficiency and people's livelihood, the East has again enjoyed priority in development.

Regarding the policy implication of regional development, this paper takes the position that the development of the East, Middle and West is in the best interest of the national economy. An unbalanced regional development adopted in the short run is to achieve a balanced regional development in the long run. The trickle-down effect must eventually be in operation from the beneficiary region to other regions.

Thus, the prerequisites for establishing a regional competitive order are to eliminate the unequal treatment and discriminatory measures affecting different regions, to spread equally across regions enterprise autonomy, to establish a non-distorted regional price structure, to dismantle the blockade of the interregional flow of technology, labour, capital, raw materials and production means, and to overcome the bottlenecks in regional transportation, communications and other related social infrastructures.

This paper further discusses the comparative advantages of the East, Middle and West and points out five growth cores and four possible regional development patterns: a processing-oriented type, a resource-oriented type, a resource-processing mixed type and a specific type for Hainan and Tibet.

1. Introduction

This paper gives a bird's-eye view of the historical evolution process of China's regional economic development. It describes the development experience of the various regional economies, in which the causes and common features of regional economic development are found. In addition, policy implications for future development of the Chinese regional economy will also be discussed.

In the following, Section 2 investigates the bases for the Chinese regional economic development, which cover the industrial, agricultural and general development bases. Section 3 examines the evolution of economic policy and development at the regional level through five periods. The evolution is to be clarified by the comparisons of the structure and growth of national income and its components in the three regions: the East, the Middle, and the West. Section 4 searches for the factors accounting for the unbalanced regional economic development. The discussion will focus on the state regional policy during the course of economic development and the difference in PMAR (provinces, municipalities directly under the Central Government and autonomous regions) economic base. Section 5 discusses in some details the policy implications for China's regional economic development. Section 6 provides some concluding remarks.

2. The Bases for Regional Economic Development

According to the classification made in the State's Seventh Five-year Plan, China's regional economies can be divided into the Eastern, Middle and Western regions. The economic potentials of these three regions have shown enormous differences and imbalance since the establishment of the People's Republic of China (PRC) in the past forty years or so. It appears that the levels of technology development in the Eastern, the Middle and the

Western are in a ladder-shaped decline. Since development achievement in the present day is simply the outcome of accumulation process in the past, it is perhaps worthwhile to examine the economic bases in the early stage before we tackle other issues of the regional development.

The geographical location makes the three regions enjoy a different natural endowment. The topography of China descends from the West to the Middle and then to the East step by step and forms the so-called three big topographical ladders. They are the highest ladder, the plateau of Qinghai and Tibet; the second ladder, the big inland basins such as Talimu basin and Zhunge'er basin; and the third step of the ladder includes the northeast plain, Huanghuaihai plain, the middle and lower reach plains of the Yangtze River and the vast basin to the south of the lower reaches of Yangtze River. Thus, the different geographical locations make distinct natural environments. The extreme cold and strong wind of the Qinghai and Tibet zone, the arid northwest zone, and the monsoon east zone.

The superior geographical condition and natural environment make the East the most advanced region in China. Long before the Opium War in 1838-1842, the coastal region¹ (CR), particularly the southeast coast had had the opportunity of trading with the outside world. From 1840 to 1949, the economic impacts of foreign investment and presence on the east coast were strengthened. In addition, the bureaucratic and private capital formation during the Qing Dynasty (1644-1911) emerged in all around the east coast area. Heavy industry was concentrated in the northeast, particularly Liaoning province. And Shanghai, Tianjin, Qingdao and Guangzhou became light industry centres. Thus, the distinction and so the unbalanced development between the CR and the interior region (IR) were formed before 1949. In what follows, however, we are going to review the industrial base, the agricultural base and the general development base in the early years of the PRC.

2.1 The Industrial Base

The major industrial indicators in the CR and IR in 1952 are shown in Table 1. The difference and unbalanced path between these regions can be characterized as in the following aspects.

Table 1 Major Indicators of the Industrial Sector in CR and IR, 1952

	Unit	CR		IR	
		Absolute amount	% share	Absolute amount	% share
Staff and workers	10,000	308.6	60.5	201.4	39.5
No. of industrial enterprises	10,000	8.53	50.3	8.42	49.7
Gross output value	100 million RMB	238.1	69.4	105.2	30.6
Original value of industrial fixed assets	100 million RMB	107.1	72.0	41.7	28.0
Coal	100 million tons	0.29	43.9	0.37	56.1
Electricity	100 million kwh	46.2	63.6	26.4	36.4
Steel	10,000 tons	115.8	85.8	19.1	14.2
Chemical fertilizers for agriculture	10,000 tons	3.87	100.0	—	—
Cement	10,000 tons	226.9	79.3	59.2	20.7
Output value of mechanical industry	100 million RMB	29.6	75.9	9.4	24.1
Yarn	10,000 tons	53.8	82.0	11.8	18.0
Output value of light industry	100 million RMB	158.1	71.5	63.0	28.5

Source: Office of the Leading Team (1987).

First of all, in 1952, the CR had been equipped with some scale of industry. The industrial base on the coast exceeded by far the Middle and West regions. The East owned industrial fixed assets of some RMB 10.71 billion and took a 72% of the national total in

contrast to the IR with a 85% of national total area but taking merely a share of 28%.

Secondly, industrial products were mostly concentrated in some provinces and municipalities on the coast such as Shanghai, Jiangsu, Liaoning, Shandong, Zhejiang, Tianjin and Guangdong, etc. Industrial output value of Shanghai occupied 19.3% of the national industrial output.

Thirdly, a few provinces including Sichuan, Hubei, Shanxi and Heilongjiang in the IR had some modern industries. The industrial output was mostly concentrating on primitive extraction industry. Coal output in the IR took 56.1% of the national total in 1952, higher than the CR. However, most industrial and mining enterprises were poorly equipped with a predominantly manual operation, and the productivity was extremely low. Many provinces such as Guizhou, Yunnan, Gansu, Qinghai, Ningxia and Xinjiang, etc. had simply no industrial sector at all.

Fourthly, the IR was endowed with abundant mineral resources in contrast to the relatively poor situation in the East. The IR owned a vast space in which some major kinds of minerals such as nonferrous metal, rare metals, iron ore and some nonmetals such as phosphorus, mica and asbestos, etc. were all found in the West. And coal, petroleum, bauxite, copper, etc. were the predominant outputs of the Middle. However, due to the poor social infrastructure, production equipment and lower productivity, the industrial sector in the IR was extremely backward. Nevertheless, the vast space with abundant mineral resources in the IR had the resources advantage for further industrial development provided that the bottleneck sectors were surmountable.

2.2 The Agricultural Base

China has a territory with a total area of 9.6 million square kilometers. Of the total land, one-third of the territory is mountainous, and more than one-fourth, plateaus. Basins take a share of about 19%, plains 12% and hills 10%. Somewhat more than one-third of the land provides natural resources for agricultural

development. However, throughout its long history for one reason or another, China's agricultural sector had operated under a comprehensive self-sufficiency closed system bordering on a natural economy.

It was not until the middle of the nineteenth century that China was forced to open her economy by external force. The agricultural sector absorbed the foreign impact and gradually formed specialized planting areas, such as soybean, wheat, beet growing zone in the northeast; tobacco growing zone in Shandong, Henan and Anhui; and cotton zone in Jiangsu and Hebei, etc. The imbalanced development of the regional agricultural sector took on the following aspects.

First, the east coast had a better chance to make an improvement in developing the commodity economy of the agricultural sector, and it gained in higher productivity. However, both the commodity economy and productivity of the agricultural sector were low in the Middle and in the West, which were monotonic and backward pasture economies.

Secondly, the imbalanced dispersion of agricultural resources over the territory could be viewed by the fact that more than 90% of cultivated land and forest land were concentrated in the East, the Middle and the South. The West and the North were endowed with more grasslands and deserts. The forest cover rate and the forest area were very low. As clearly shown in Table 2, the cultivated area was distributed as 35.7%, 42.9% and 21.4% respectively in the East, the Middle and the West. And correspondingly, per capita cultivated area was 2.4 *mu*, 3.6 *mu* and 2.6 *mu*. However, in terms of agricultural output value, the East took the largest portion 44.8%, the Middle shared 37.3% and the rest, 17.9%, was in the West.

Table 2 Agricultural Sector in the Three Economic Regions, 1952

	East	Middle	West
Share of cultivated area (%)	35.7	42.9	21.4
Per capita cultivated area (<i>mu</i>)	2.4	3.6	2.6
Share of agricultural output value (%)	44.8	37.3	17.9

Source: Compiled from Hsueh, Li and Liu (1993) and the Department of Synthesis (1989).

Notes: 1. For the coverage of the East, the Middle and the West, see also Table 3.

2. 1 *mu* = 0.0667 hectare.

2.3 The General Development Base

In 1952, the East took an average share of 41.9% of the national total population, 50.2% of national income (NI), and RMB 117 of per capita NI (see Table 3). Among the PMARs, Shanghai, Tianjin and Beijing were rated as the first three among the highest per capita NI. With the exception of Guangxi, Shandong and Guangdong, the per capita NI of all others in the region was higher than or comparable with those of the Middle and Western provinces and autonomous regions. The level of industrialization in the East was as high as 55.2%. And that of Shanghai, Tianjin, Beijing or Liaoning was over 70%.

Meanwhile, the Middle took a share of 35.0% of national total population, 33.7% of national income, and RMB 94 of per capita NI on average. The per capita NI of Heilongjiang, RMB 211, was rated as the fourth in the national ranking order. And that of Inner Mongolia, Jilin, or Jiangxi was also in a better position.

The West took a share of 23.1% of national total population, 16.1% of national income, and RMB 68 of per capita NI on average. Compared with the other two regions, it was relatively backward attaining a level of 29.8% in industrialization. Urbanization level was extremely low with 91.9% of its population in the agricultural sector.

Table 3 General Development Base of the Three Economic Regions and PMARs, 1952

	National income		Per capita NI		Residents' consumption level (RMB)	Urbanization ¹ (%)	Industrialization ² (%)
	Absolute amount ³ (RMB)	% share	Absolute amount ³ (RMB)	Ranking			
The East	273.02	50.2	117		86.37	16.7	55.2
Beijing	6.24	1.15	250	3	141	84.6	78.1
Tianjin	11.50	2.12	268	2	142	50.1	87.8
Hebei	35.83	6.59	111	9	77	6.6	35.8
Liaoning	37.40	6.88	196	5	114	22.4	72.7
Shanghai	33.45	6.16	397	1	219	95.7	95.1
Jiangsu	35.63	6.56	96	13	74	14.1	44.5
Zhejiang	22.53	1.84	103	12	85	13.9	27.5
Shandong	40.90	7.53	88.5	19	68	5.1	33.4
Fujian	11.97	2.20	96	13	78	10.5	27.5
Guangdong	25.65	4.72	88.5	18	82	19.1	44.8
Guangxi	11.92	2.19	62	26	na	10.9	26.0
The Middle	183.09	33.7	94		76.92	11.47	32.7
Shanxi	13.01	2.39	95	16	71	8.6	31.2
Inner Mongolia	10.71	1.97	153	6	92	10.8	11.9
Jilin	15.21	2.79	141	8	103	43.7	45.7
Heilongjiang	23.09	4.25	211	4	137	26.7	52.4

Table 3 (Continued)

Anhui	22.80	4.19	78	21	na	4.6	22.6
Jiangxi	17.10	3.15	104	11	77	13.6	31.2
Henan	33.20	6.11	76	23	62	5.3	26.5
Hubei	22.76	4.88	84	20	72	10.0	37.5
Hunan	25.21	4.64	78	21	68	7.4	25.6
The West	87.24	16.1	68		56.42	8.1	29.8
Sichuan	36.74	6.76	59	27	49.4	8.6	34.6
Guizhou	8.16	1.50	56	28	49	6.0	29.3
Yunnan	10.58	1.95	63	25	51	3.9	28.4
Shaanxi	11.53	2.12	75	24	72	10.1	31.5
Gansu	9.93	1.82	95	16	61	7.4	21.7
Qinghai	1.51	0.28	96	13	na	7.6	13.9
Ningxia	1.48	0.27	107	10	82	5.1	11.0
Xinjiang	7.31	1.34	153	6	122	18.2	23.5
Tibet	na	na	na	na	na	na	na

Source: As for Table 2.

Notes: 1. Urbanization implies the ratio of non-agricultural population to total population.

2. Industrialization is meant to be the ratio of gross output value of industry to gross output value of agriculture and industry.

3. Absolute amount at 1952 current prices.

na: not available.

3. The Evolution of Economic Development at Regional Levels

By and large, the Chinese economic development can be classified into five periods during the past forty years or so, i.e. the rehabilitation and reconstruction period (1949-1957), Great Leap Forward period (1958-1960), economic readjustment period (1961-1965), Cultural Revolution period (1966-1978) and reforms and opening period (1979-). Subject to the limitation of data, the time spans of the first and last periods are designated as 1953-57 and 1979-89. The detailed information on the growth rate of national income for the whole nation and PMARs is shown in Table 4.

In the first period 1949-1957, the economy grew rapidly in the first three years of rehabilitation. Regional economies were able to restore themselves to the highest historical level of pre-1949. The economies then went to the reconstruction period of the First Five-year Plan (1953-1957). The growth rate of national income was 8.88% for the national average. And those of Beijing, Tianjin, Liaoning, Shanghai and Fujian in the East, Hebei in the Middle; and Sichuan, Guizhou, Yunnan and Shaanxi in the West, all exceeded 10%. The economic growth at the national or regional levels achieved great success.

During the second period 1958-1960, the economy was largely harnessed by the Great Leap Forward campaign under the leadership of Mao Zedong. The nation and PMARs set up the target of overtaking the advanced countries such as the USA, or the UK, in steel and iron production within fifteen years or even in as short as twelve years. To take steel as the key link meant to make every effort in order to develop the heavy industry sector. However, it was to the neglect of the economic proportionality. The singular and biased development of steel and iron without matching the suitable proportionate components of other factor inputs eventually resulted in a great economic setback at the end of the period. Although the nominal growth rate of national output was enormously high (involving some exaggeration) in the early years

Table 4 Growth Rate of National Income by Whole Nation and PMARs, 1953-1989

	In comparable prices (1952 = 100)					
	1953-89	1953-57	1958-60	1961-65	1966-78	1979-89
Whole nation	6.78	8.88	9.18	-0.17	6.60	8.68
Beijing	11.28	19.50	45.68	-7.20	11.59	8.38
Tianjin	7.36	14.40	18.21	-3.41	6.70	7.36
Hebei	6.18	5.13	10.45	-3.02	7.63	8.23
Liaoning	7.38	15.83	26.68	-10.38	7.45	7.61
Shanghai	8.33	13.83	33.29	-6.48	7.87	7.56
Jiangsu	7.15	4.35	0.72	4.48	7.61	11.00
Zhejiang	7.78	8.65	6.77	0.11	6.59	12.80
Shandong	7.09	5.21	1.40	2.41	8.27	10.37
Fujian	7.17	10.14	6.38	-2.49	6.58	11.43
Guangdong	7.16	9.20	3.78	3.38	4.96	11.64
Guangxi	5.62	7.58	3.66	2.22	5.39	7.15
Shanxi	6.11	8.43	13.64	-1.32	4.62	8.39
Inner Mongolia	6.45	9.19	21.17	-1.97	4.11	8.24
Jilin	6.40	5.82	19.49	-2.24	5.47	8.50
Heilongjiang	6.38	8.01	18.64	-2.52	6.56	6.47
Anhui	5.26	6.62	-0.36	0.54	4.52	9.40
Jiangxi	5.69	6.68	5.39	0.69	5.15	8.33
Henan	6.56	6.88	7.36	-2.86	7.63	9.47
Hubei	6.42	10.40	5.16	-0.31	5.28	9.57
Hunan	5.91	8.43	8.43	-3.37	6.67	7.62
Sichuan	5.97	11.07	-0.86	1.47	5.52	8.28
Guizhou	5.82	10.36	7.42	-3.57	5.09	8.74
Yunnan	6.95	11.99	4.17	2.84	5.33	9.32
Shaanxi	7.32	11.57	16.46	-1.62	6.61	8.10
Gansu	6.33	8.40	0.20	3.79	6.86	7.68
Qinghai	7.30	15.08	18.71	-3.72	7.27	6.25
Ningxia	6.96	7.40	13.07	-0.13	6.71	8.78
Xinjiang	7.01	9.02	20.28	1.45	3.13	10.02

Source: As for Table 2.

Note: Hainan and Tibet are not in the list because of data limitations.

of the period, the costs paid for, such as extremely low quality of products, excessive exhaustion of resources, etc., were even higher.

In the third period, 1961-1965, i.e. the economic readjustment period, the biased and unrealistic guidance of economic ideology, the disproportionate economic structure, the serious setback in the agricultural sector and the chaotic and extremely low efficient national economy which had consequently led to the drastic economic depression of 1960-1962 were all to be rectified. Although strong efforts were devoted to the economic recovery, the average growth rate of national income was -0.17% as a national average during the whole period.

The fourth period, 1966-1978, covered the Cultural Revolution period of 1966-1976 and the Foreign (Yang) Leap Forward period of 1977-1978. Due to the political turmoil, the industrial output in various PMARs fell in 1966-1969, and the whole economy approached the edge of collapse towards the end of the Cultural Revolution. Later, Hua Guofeng succeeding at the highest leadership post implemented the so-called "Foreign Leap Forward" which initiated a large scale of investment activities including several huge industrial projects and the importation of whole sets of equipment from various foreign countries. The production was accelerated, however, at the cost of overrunning the national capacity and of serious economic disproportionality.

The fifth period was the first ten years of economic system reforms and opening period, 1979-1989. The Chinese economy entered an era of new economic ideology and new set-up. The PMARs throughout the whole nation enjoyed a rapid economic growth. Special economic zones, economic technology and development zones and open cities were established mostly on the east coast. Thus, Zhejiang, Guangdong, Fujian and Jiangsu took the leading positions of the national list.

A further investigation on the percentage shares in the three regions of the national income is shown in Table 5 and Figure 1. From the very beginning of the establishment of the PRC, the East had already taken the leading position in the percentage share of

national income, 50.2%, next the Middle, with 33.7%, and then the West with 16.1%. During the middle of the 1950s until the early 1970s, the national economic reconstruction placed emphasis on the IR. Thus, the above percentage shares of the three regions respectively changed to 48.0%, 34.4% and 17.6% in 1967. However, the CR development has been reemphasized again since the middle of the 1970s. And the respective percentage distribution appeared to be 54.2%, 29.9% and 15.8% in 1989. The difference in economic strength between the CR and IR was further enlarged.

Figure 1 Percentage Shares of National Income by the Three Regions, 1952-1989

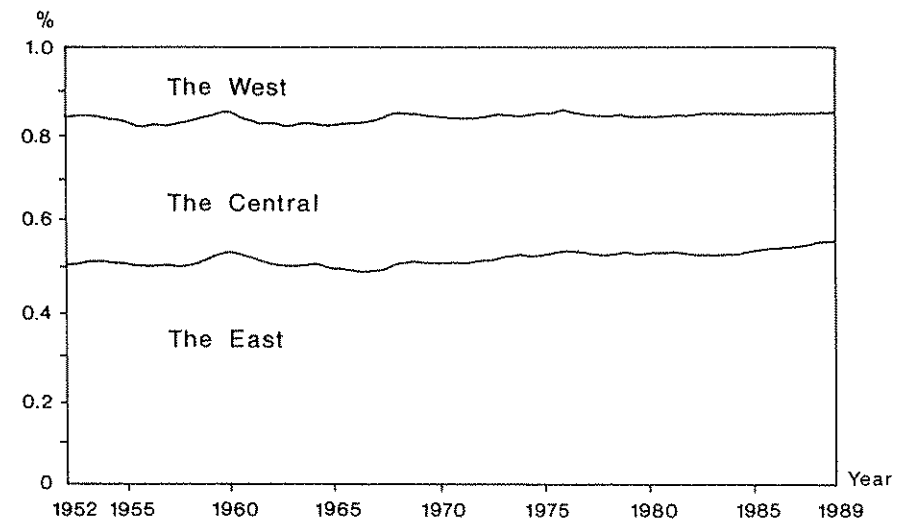


Table 5 Percentage Share of National Income by the Three Regions

In current prices			
	East	Middle	West
1952	0.502454	0.336945	0.160600
	0.511935	0.330355	0.157709
	0.510501	0.319228	0.170270
1955	0.498623	0.331098	0.170270
	0.494729	0.323132	0.182138
	0.493540	0.324203	0.182255
	0.499495	0.332943	0.167561
	0.514613	0.323816	0.161569
1960	0.529377	0.319712	0.150909
	0.509557	0.318705	0.171736
	0.496411	0.325657	0.177930
	0.496675	0.321573	0.181751
	0.499777	0.321897	0.178324
1965	0.493583	0.325305	0.181110
	0.485493	0.335186	0.179320
	0.479956	0.344313	0.175730
	0.499952	0.347518	0.152529
	0.511238	0.330032	0.158729
1970	0.501884	0.334000	0.164114
	0.497501	0.333272	0.169226
	0.506994	0.327442	0.165563
	0.511104	0.328706	0.160189
	0.519888	0.322606	0.157504
1975	0.518696	0.320235	0.161067
	0.533840	0.317403	0.148755
	0.523593	0.317377	0.159028
	0.527500	0.308572	0.163926
	0.520950	0.314434	0.164615
1980	0.527442	0.309993	0.162564
	0.527993	0.313769	0.158236
	0.526555	0.311655	0.161788

Table 5 (Continued)

	0.521115	0.317828	0.161056
	0.525665	0.314282	0.160052
1985	0.533171	0.308364	0.158463
	0.532892	0.310805	0.156302
	0.537683	0.307389	0.154927
	0.541434	0.300126	0.158439
1989	0.542374	0.299136	0.158489

Source: As for Table 2.

An examination of the percentage share of output value of five economic sectors is made in Table 6. The national income of the industrial sector in the East took in 1952 a percentage share of 68.07% in the national total, the Middle sharing 22.46% and the West 9.47%. Following the national policy decided by the central government,² a great effort was devoted to the reconstruction of the industrial sector, particularly in the Middle and West during the Third Five-year Plan (1966-1970) and the Fourth Five-year Plan (1971-1975). The above percentage shares had changed their appearance to 59.86%, 26.95% and 13.19% by 1978. Nevertheless, during the reform and opening period, the East was able to gain a percentage share as high as 62.19%, and the Middle and the West slipped to 25.94% and 11.87% respectively in 1989. The East had the advantage of obtaining more new technology and developing more new market-oriented products via the dissemination and demonstration effects of foreign investors during the period, in comparison with the Middle and West. Nevertheless, the Middle established more core cities and production capacities than the West.

As for the other aspects, the Middle gained a greater increase in percentage share of construction from 32.34% in 1952 to 34.11% in 1978 but fell again to 27.80% in 1989. Meanwhile, both the Middle and the West enjoyed a higher increase in the commerce sector from 28.53% and 13.88% respectively in 1952 to 31.32% and

Table 6 Percentage Share of Five Economic Sectors by the Three Regions, 1952, 1978 and 1989

	East			Middle			West		
	1952	1978	1989	1952	1978	1989	1952	1978	1989
Industry	0.6807	0.5986	0.6219	0.2246	0.2695	0.2594	0.0947	0.1319	0.1187
Light industry	0.5956	0.5662	0.5793	0.2799	0.2805	0.2831	0.1245	0.1532	0.1376
Heavy industry	0.6218	0.6491	0.6742	0.2564	0.2357	0.2171	0.1218	0.1152	0.1088
Agriculture	0.4476	0.4261	0.4767	0.3729	0.3734	0.3352	0.1795	0.2005	0.1880
Construction	0.4503	0.4431	0.5657	0.3234	0.3411	0.2780	0.2263	0.2157	0.1563
Transportation	0.5224	0.5210	0.5499	0.3261	0.3107	0.2919	0.1515	0.1683	0.1582
Commerce	0.5759	0.5158	0.5569	0.2853	0.3132	0.2843	0.1388	0.1711	0.1587

Source: As for Table 2.

17.11% in 1978 and fell again to 28.43% and 15.87% correspondingly in 1989. The West made a big improvement in its percentage share of the agricultural sector from 17.95% in 1952 to 20.05% in 1978 but fell again to 18.80% in 1989. The Middle, gained slightly in agriculture from 37.29% in 1952 to 37.34% in 1978, however, it slipped to 33.52% in 1989. The West got some gain in percentage share of transportation from 15.15% in 1952 to 16.83% in 1978, but not the Middle, and both had their percentage shares fall again in 1989.

Making use of per capita NI, we measure the growth level of the three regions and the PMARs. As shown in Table 7, the per capita NI of the East, the Middle and the West developed big differences, RMB 117, 94 and 68 respectively in 1952 and 401.6, 269.9 and 220.4 in 1978 and then 1,571.8, 1,001.5 and 820.9 in 1989. Thus, as far as the per capita NI is concerned, the imbalanced growth of the three regions deteriorated rather than improved.³

In regard to the individual PMARs, Shanghai, Beijing, Tianjin and Liaoning were able to maintain their leading positions in the national list. However, Guangdong, Zhejiang, Jiangsu and Fujian among others made rapid improvements in their per capita NI during the course of development. In particular, the progress of Guangdong and Fujian was so impressive that the rankings of their per capita NI from 9 and 23 respectively in pre-reform year 1978 leapt to 5 and 11 correspondingly in 1989.

Table 7 Regional Per Capita National Income

	1952		1978		1989	
	Absolute value	Ranking	Absolute value	Ranking	Absolute value	Ranking
The East	117		401.6		1,571.8	
Beijing	250	3	1,037.2	2	3,298.4	2
Tianjin	268	2	1,031.8	3	2,738.4	3
Hebei	111	9	312.8	10	1,104.7	15
Liaoning	196	5	605.5	4	1,989.0	4

Table 7 (Continued)

Shanghai	397	1	2,235.4	1	4,599.1	1
Jiangsu	96	13	357.0	6	1,614.9	7
Zhejiang	103	12	288.0	13	1,659.3	6
Shandong	85.5	19	273.1	17	1,294.1	9
Fujian	96	13	234.0	23	1,242.5	11
Guangdong	88.5	18	317.5	9	1,717.7	5
Guangxi	62	26	187.5	28	723.3	29
Hainan	na	na	251.1	20	1,131.5	24
The Middle	94		269.9		1,001.5	
Shanxi	95	16	280.2	14	1,005.6	17
Inner Mongolia	153	6	255.1	19	992.1	18
Jilin	141	8	330.7	8	1,268.2	10
Heilongjiang	211	4	484.0	5	1,467.6	8
Anhui	78	21	220.3	24	909.5	20
Jiangxi	104	11	240.7	22	835.3	25
Henan	76	23	203.2	26	835.7	24
Hubei	84	20	295.3	11	1,165.6	13
Hunan	78	21	247.2	21	898.5	21
The West	68		220.4		820.9	
Sichuan	59	27	211.3	25	808.7	26
Guizhou	56	28	154.9	29	622.4	30
Yunnan	63	25	200.6	27	770.9	27
Shaanxi	75	24	256.2	18	856.6	22
Gansu	95	16	292.1	12	855.8	23
Qinghai	96	13	332.7	7	1,048.6	16
Ningxia	107	10	278.8	15	971.2	19
Xinjiang	153	16	276.4	16	1,232.1	12
Tibet	na	na	na	na	763.9	28

Source: As for Table 2.

4. Factors Accounting for Imbalanced Regional Economic Development

Since China has been a socialist country in which economic planning has played an important role in the national economic activities, there are at least two broad aspects to discussing factors accounting for the imbalanced regional economic development. Apart from the objective factors such as the differential economic base, resources endowment, natural environment and production structure at the regional level, the other most important factor is, perhaps, the subjective factor arising from the state regional economic policy.

4.1 The State Regional Economic Policy

China's regional economic policy can be divided into two periods in which 1978 has been the demarcation year. In the pre-1978, regional policy had adopted basically a balanced development strategy, and the post 1978, an unbalanced one.

The objective for the balanced strategy was oriented towards two fundamental directions: First, it was used to change the historical inheritance in favour of the CR. The IR being endowed with abundant resources was to be further developed to change its backward status, on the one hand, and to provide more industrial raw materials, mineral resources to other regions, on the other. Secondly, the need for war preparations placed an emphasis on the expansion of industrial reconstruction in the interior and periphery, counting for possible war against the USA and the USSR.⁴ Under central economic planning, the State was able to manoeuvre the manpower, equipment and finance to endorse the construction. And, it was under the state plans to achieve a large scale transfer of production layout from the East to the Middle and West. As a matter of fact, the reconstruction task could be traced back to the rehabilitation period of 1949-1952 which proceeded with the remoulding of the old northeastern and north-

ern industrial bases and then extended to the interior during the First Five-year Plan.

It is worth noting that China undertook 156 big projects with the aids of the USSR during the period of 1953-1957. Meanwhile, there were 694 self-designed key projects under construction. Among the original 156 investment items, 4 items remained unfulfilled, and 2 items resulted in double counting. There was a total of 150 big projects undertaken, of which 32 items in the CR. Of the domestically initiated projects, 472 items proceeded in the IR taking a share of 68%. As a result, the average growth rate of the industrial sector was 17.8% in the IR in contrast to 14.4% in the CR, and 15.5% for the whole nation in 1953-1957. In 1958, under the general line guidance, the nation went in for steel and iron production in a mass campaign. The basic construction investment in the industrial sector went out of control. At the same time, the international political situation was extremely unfavourable to China. The Sino-USSR and Sino-USA relationships were in serious tension. All these enabled Mao Zedong to insist on his advocacy of war preparations. Thus, the "Third Line" reconstruction⁵ and an independent regional industrial system were two key development strategies. As a result, investment allocation was biased in favour of the IR at the cost of the CR. The interior investment reached its climax in the Third Five-year Plan with a percentage share of the national total of 66.8%. And "Third Line" investment took a share of 52.7%. In addition, every PMAR took the advantage of the campaign to establish a "small Third Line" for itself.

In the 1960s, the "Third Line" construction continued to be on the rise. Even in 1971-1972, the large and small "Third Lines" still played the key role in the national and local industrial construction. However, for the obvious reason of political turmoil and economic chaos during the period of the Cultural Revolution, the layout of the industrial construction was poorly carried out. The general condition of the national economy got worse, and the tension between supplying national output and raising living standards intensified. Thus, the central government was obliged

to shift its emphasis from the IR to the CR during the Fifth Five-year Plan (1976-1980). As a matter of fact, the state investment activities inclined to be favourable to the East in the Sixth Five-year Plan (1981-1985), and they have done so ever since.

In essence, the adopted unbalanced development strategy was changed into the regional gradation policies in the following ways.

First, the State put into effect the gradation of policy target and development stress. In reviewing the past development experience — "to disregard economic efficiency and to overemphasize growth speed" and "to depreciate the coast and to overemphasize the interior" — the State underlined economic efficiency to be integrated with the growth potential so that people could really enjoy the benefits of economic growth. Thus, by taking all PMARs into account, the east coast had to make its best effort to "accelerate development." The Middle had to select some key projects for fruitful development, and the West was asked well to prepare itself for further development.

Secondly, the State implemented the reform and opening policy gradation. In 1979, the central government confirmed that Guangdong and Fujian were to adopt "special policies, flexible measures;" Shenzhen, Zhuhai, Shantou in Guangdong and Xiamen in Fujian were approved to be four special economic zones in 1980. By the early 1984, the central government determined to open another fourteen port cities, i.e. Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang and Beihai. From early 1985 to the end of 1987, the State Council decided to open up the Pearl River delta, the Yangtze River delta, the Zhangzhou-Quanzhou-Xiamen triangle region of southern Fujian, the Shandong peninsula and the Liaodong peninsula to become coastal open districts. Accordingly, various privileges were granted to these areas, including a larger holding share of foreign exchange and a greater autonomy in the approval of foreign and domestic investment. As a result, there was a tremendous flow of capital, manpower and raw materials from the IR to

the CR, which intensified the imbalanced development between these two regions. The hierarchical slope started from the special economic zones → coastal open cities → coastal open districts → the interior, which formed a ladder-shaped dispersion.

Thirdly, was carried out an investment gradation. In order to be externally open and internally linked, state investment was biased towards the CR. During the Sixth Five-year Plan, the percentage share of state investment in the CR was as high as 50.6%, much higher than the 40.6% in the period of 1953-1980. The total social fixed assets investment was distributed as RMB 62.317 billion, 34.221 billion and 17.978 billion respectively in the East, the Middle and the West, with the respective percentage share of total national investment as 50.65%, 27.8% and 14.6% in 1982. And the corresponding figures were RMB 197.438 billion, 89.971 billion and 50.045 billion, with the respective percentage share of 56.12%, 25.57% and 14.2% in 1987. Of the PMARs on national basic construction investment, Guangdong came out first for the first time in 1984.

4.2 *Difference in PMAR's Economic Base*

The PMARs' economic base is mainly manifested in the following aspects: the degree of industrialization (indicated by the ratio of gross output value of industry to gross output value of industry and agriculture); the weight of light or heavy industry in the industrial sector; the source of raw materials used in the light industry; and the weights of extraction, raw materials, and manufacturing in the heavy industry. China is still at a low developed stage. The industry sector plays a leading role in the PMARs' economic development as the industrialization and urbanization proceed. The process of China's economic development is viewed by the course of transformation from a traditional natural economy to an industrialized commodity economy. In 1952, except for Shanghai, Tianjin, Beijing and Liaoning reaching over 70%, most of the provinces and autonomous regions had a degree of industrialization which was under 50%. By 1989, Beij-

ing, Tianjin and Shanghai had a degree of industrialization that reached over 90%. The other provinces and autonomous regions (with the exception of Hainan and Tibet) were over 60%. Jiangsu and Zhejiang had made a tremendous jump from 44.5% and 27.5% respectively in 1952 to 82.5% and 81.2% correspondingly in 1989. As a result, the growth rate of national income in Jiangsu and Zhejiang, 7.15% and 7.78% respectively, exceeded that of the national average, 6.78% in 1953-1989 (see Tables 8 and 4).

Under normal conditions, the development of heavy industry and extraction industry provides a sound foundation for industrialization. However, the prices of basic energy and raw materials were stipulated at a relatively low level compared with that of processed manufactured products. Under such a biased price structure, those provinces and autonomous regions oriented to heavy and extraction industries suffered from unfavourable terms of trade. On the other hand, the development of light industry required less capital and had much room for choosing the production technology, in addition to the favourable terms of trade with the heavy industry. Thus, those provinces and autonomous regions such as Hebei, Shanxi, Heilongjiang, Guizhou and Gansu, etc., which had a large share of heavy and extraction industries, gained nothing in the national list of per capita NI by promoting the progress of their established industry (see also Tables 7 and 8).

The light industry which consumed a larger percentage share of raw materials from the non-agricultural sector reflected a higher level of technology adoption. In addition, their products were more advanced, and so were their prices more highly marked up in the Chinese price system. Furthermore, the light industry dependent on raw materials from the agricultural sector suffered quite often from crop failure of the sector. Light industries in Yunnan (84.0%), Xinjiang (82.1%), Inner Mongolia (79.9%), Ningxia (77.9%), Henan (75.8%), Shaanxi (75.7%) and Hubei (75.5%) had all a higher percentage of raw materials from the agricultural sector. With the exception of Xinjiang and Hubei,

the rest did not improve their status on the per capita NI in the national list (see Tables 8 and 7).

Table 8 Some Information on Regional Economic Basis, 1989

	Gross output value of industry as % of gross output value of agriculture and industry	% share of heavy industry	Extraction industry as % of heavy industry	% of raw materials of light industry from farm and side-line products
The East				
Beijing	92.1	48.1	1.2	58.3
Tianjin	92.4	49.9	4.5	50.7
Hebei	76.9	51.7	11.8	72.2
Liaoning	87.4	67.0	6.5	60.4
Shanghai	96.2	48.2	0.0	49.2
Jiangsu	82.5	46.5	2.2	63.3
Zhejiang	81.2	37.0	2.4	67.8
Shandong	77.8	48.8	14.7	73.1
Fujian	69.9	39.4	7.3	60.3
Guangdong	75.0	na	na	na
Guangxi	60.6	45.5	9.1	73.9
Hainan	37.7	na	23.2	51.2
The Middle				
Shanxi	82.3	73.1	30.7	63.0
Inner Mongolia	65.5	56.7	22.1	79.9
Jilin	79.8	57.9	10.6	66.8
Heilongjiang	83.2	66.0	34.7	74.3
Anhui	64.8	47.6	9.1	71.7
Jiangxi	67.2	56.1	15.6	68.1
Henan	67.9	55.9	14.9	75.8
Hubei	74.5	52.6	4.1	75.5
Hunan	66.8	55.9	7.7	70.2

Table 8 (Continued)

The West				
Sichuan	68.5	54.2	8.2	71.5
Guizhou	60.1	57.4	9.6	74.9
Yunnan	66.6	49.3	12.3	84.0
Shaanxi	73.3	58.3	6.8	75.7
Gansu	73.7	70.4	11.0	71.1
Qinghai	71.5	69.1	na	na
Ningxia	73.2	69.7	17.0	77.9
Xinjiang	60.7	52.3	40.2	82.1
Tibet	17.3	na	na	na

Source: As for Table 2.

5. Policy Implications for China's Regional Economic Development

Essentially, there have been two fundamental strategies: the balanced regional development strategy and the unbalanced regional development strategy, as already said. The first strategy required that more investment and construction should be put in the interior regions instead of upgrading the East. According to the second strategy, the East was to be given first priority to further development because of its higher productivity than the Middle's and the West's. However, in doing so the gap between the East and the interior would further widen. Thus, for the national productivity layout, a trade-off had to be envisaged between efficiency and equity in terms of regional economic development.

From the standpoint of national economic development, the East, the Middle and the West should be integrated in such a way that each part can be developed according to its comparative advantage. Thus, to the best interest of the national economy, an unbalanced regional development policy adopted in the short run

aims to achieve a balanced regional development in the long run, so the trickle-down effect must be in operation from the beneficiary region to other regions.

5.1 *Prerequisites for Establishing an Economic Competitive Order at the Regional Level*

In order to promote interregional economic competition on an equal basis, the most important thing was to eliminate the unequal treatment and discriminatory measures against different regions. Of the prerequisites listed below, the first was granting enterprise autonomy on an equal basis. As reported by Wu and Dong,⁶ about 75% of the coal bases' output had been centralized, allocated and utilized by the State. The coal bases had shared a very small portion of their products for self-management. Up to 1990, the coal producing regions had owned no right over exporting coal directly under self-management. And export of coal had been entirely operated via coal exporting agents designated by the State.

The economic and trade departments in charge took a large share of the benefits from coal exports and left a small percentage to the coal bases. According to estimates, of the total coal reserves, 874.77 billion tons, Shanxi had a share of 32.0%, west Inner Mongolia, 22.6%, Shaanxi, 16.8%, Ningxia, 3.5% and west Henan, 1.9%. These regions with a percentage share of 77% of the national total all belonged to the IR. They enjoyed neither an equal basis of enterprise autonomy nor the benefits from their local products as compared with the East.

Secondly, establishing a non-distorted price structure was needed to fulfil the fair terms of trade for the regions. As being discussed in the text, the price level of minerals, raw and processed materials stipulated by the State had been generally on the low side. And the price level of manufactured products had moved up as the manufacturing process had been getting deeper. The Middle and the West generally produced minerals, raw materials and primary processing manufactured goods in contrast

to the East specialized in producing advanced-processing manufactured goods. The terms of trade was quite obviously favourable to the East. As estimated, the price scissors of inter-regional commodity trade had cost Yunnan a loss of a net implicit transfer to the country as high as RMB 3 billion yearly, by far exceeding the explicit return transfer from the State.⁷

Thirdly, the State needed to break through the interregional blockade of the flow of technology, labour, capital, and raw and processed materials. The IR was endowed with abundant natural resources which were simply idle or utilized in a very primitive way with less value-added. Take Yunnan province as an example: 103 *xian* (county) and *shi* (city) out of 127 were receiving subsidies from the State to solve the problem of feeding the population ("*Chifan* (feeding) public finance") though they were not poor in natural resources. An effective way to break the stagnant local economy could be done by the external injection of technical knowhow, capital, skilled labour and equipment. Through the investment, particularly, on those industries with higher forward and backward linkages, other sectors of the local economy could also be stimulated. The IR had to attract capital from the East or even foreign investment in one way or another by some effective measure, and there were many channels to do so. For instance,⁸ to promote the horizontal linkage between the First Line and the Third Line, the technical knowhow and market information could be transferred from the special economic zones, the open cities, and others to the interior; the transfer of the high energy-consuming industries in energy-short areas in the East to the energy-endowed areas in the interior could be made; the joint-stock system and/or transfer of ownership could be implemented so as to invite enterprises in the East or even foreign enterprises to make a better utilization of the resources in the IR.

Last but not least, could be surmounted the bottleneck of transportation, communications and other related social infrastructures. The poor condition of transportation and communications in the IR impeded seriously regional economic development. First, the bottleneck of transportation restrained

Shanxi from enjoying the economies of scale of a large scale exploitation of mineral resources. It was imperative for Shanxi to set quota on mineral production according to the quota assigned on railway transportation. Secondly, the bottleneck of transportation and communications blocked the possible dissemination of production technology and market information from the outside world. In general, the local enterprises had usually adopted traditional or indigenous technology, which consequently produced products of low quality, wasted lots of resources and created less value-added. Such a circular flow of the local economy fell short of becoming effective external forces to break through it. Thirdly, the bottleneck of transportation and communications was in the way of overseas and foreign investment, even interregional investment, simply because the formidable transportation cost narrowed down products marketing, and the ineffective communications caused tremendous transaction costs.

5.2 Some Possible Strategies for Promoting Regional Economic Development

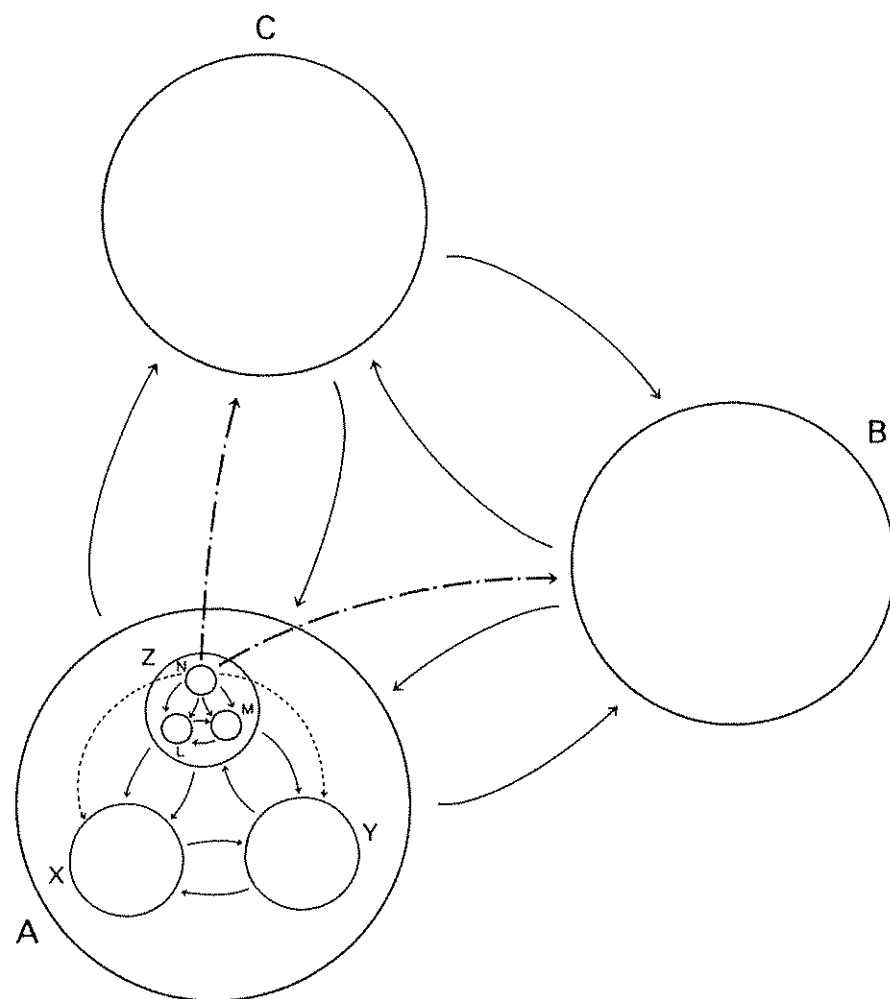
To break through the circular flow of a regional economy, some new economic activity must take place somewhere in the region.⁹ The degree of impact of the new economic activity depends upon its forward and backward linkage effect on other sectors inside and outside the regional economy in question, and also the feedback effect from the other sectors to the new economic action. It is exactly in such a dynamic process that the regional economy moves on its course of development.

The new economic activity can be initiated by any economic establishment in the region. The list may include economic departments of the government sector, sino-foreign joint ventures, joint state-private enterprises, joint foreign-private enterprises, exclusively foreign enterprises and, more important, exclusively private enterprises to carry out any kind of new combinations in the economic sphere.

The interdependence of regional economic establishments is portrayed as in Figure 2. The basic establishment N in the sub-region Z may be related to the establishments L and M in the same subregion; it may also be related to establishments in other subregions X and Y and even to the establishments in the regions B or C. It is a rule of thumb that the more extensive the interdependence among establishments, the more impact arises from the new combinations provided and so the more advanced is the stage the regional economy steps into.

As estimated, towards the end of Sixth Five-year Plan (1981-1985), the total accumulation of state investment in the Third Line region had reached more than RMB 200 billion. In particular, during the Third Five-year Plan (1966-1970), state investment (RMB 48.2 billion) in the region had accounted for 52.7% of the nation's total basic construction investment in the period. However, among the established 2,000 backbone enterprises and research institutes of large and medium size, the success ratio was only 48%.¹⁰ It is said that, subject to the military needs, the enterprises were all independently and separately established with little economic interdependence among them. There was little linkage effect among the enterprises vertically and horizontally, and the towns were also independently and separately constructed. Thus, these development poles were segregated, and the potential linkage effect from "pole" to "line" and even to "surface" was feeble.¹¹

The industrial structure of the Third Line inclined to be of the defence and heavy industries, such as the Panzhihua's steel and iron base; Chongqing's arms industry base, instrument and meter industry base; Chengdu's electronic industry base; Sichuan's space industry base; Guizhou's aviation industry base; and Yunnan's precision instrument industry base. The reshuffle of the Third Line's industrial structure involved the incorporation of military industry with the civilian industry, the incorporation of heavy industry with light industry, etc. However, in terms of the technology transformation into modern civilian and light industries in the Third Line, the technology formerly adopted in the

Figure 2 Interdependence of Regional Economic Establishments

defence and heavy industries was aging and becoming outmoded. As a result, it was faced with two alternatives: either importing new equipment or renovating the outmoded equipment. The latter would salvage the sunk cost involved in the previous period, but it would have to be very costly in some cases. A report indicated that, as the State Council set up the Office of Readjustment, Renovation and Planning of the Third Line in 1983,¹² the total capital approved for the readjustment, renovation and planning had been RMB 2 billion, of which the central State subsidized 0.8 billion (later changed from appropriation to loans and construction loans, each for 0.4 billion). The remaining 60% had to be financed by the departments, local governments and enterprises concerned. Noting that the industries in the Third Line mostly belonged to the heavy basic industries with capital-intensive and heavy-processing technologies, therefore, the capital required for remoulding the industries must have been enormous.

The author takes the liberal position that such remoulding task may be carried out by any agent, enterprise or even individual interested and not be strictly confined to the State or local government. The interested party can negotiate with the State or local government concerning the rights and obligations of the remoulding under property rights ruled by law. In other words, since this real estate has become stagnant someone has to take the initiative and do something about taking the sunk cost into account. The crux is that the local authorities should do what they can to reshuffle the sunk and idle resources and turn them into active and useful capacities.

In a report,¹³ a government authority clearly stated that in order to make further advances in the second and tertiary industries in the Middle and the West, the county (xian) government should gradually shift its focus of attention towards the development of rural enterprises. And in those impoverished and backward areas where the collective economy was weak, the government should give a free hand to businesses run by individuals, the private sector and joint household enterprises.

5.3 Regional Comparative Advantage

In what follows, the comparative advantage of the East, the Middle and the West will be discussed in some details.

The East

Although the East is in a better position, especially with regard to its industrial base, production technology, education quality, market economy and foreign trade as compared with the other two regions, yet, judged by international standards, the industrial base and production technology tend to be old, weak, sick or disabled. Thus, an immediate and effective way of improving the situation is to borrow foreign capital and technology as a remedy.

The reconstruction of the East, therefore, focused on the four special economic zones, the fourteen east coast open cities, the five open districts and Hainan province. Concessions and subsidies were given to these localities in order to attract the overseas investors. Through the efforts devoted during the economic reform and open door period, the east coast from south to north has been forming five growth cores from Guangzhou, the Pearl River delta, Shenzhen and Zhuhai plus hinterland Guangdong in connection with Hong Kong and Macau; the east coast of Fujian including Xiamen, Fuzhou and Quanzhou in connection with Taiwan; Shanghai, Pudong and the Yangtze River delta; Shandong peninsula, Qingdao, Weihai down to Jinan in connection with South Korea and Japan; and Bohai Bay and Liaodong peninsula, Tianjin, Dalian and Qinhuangdao plus the hinterlands of Liaoning and Hebei, in connection with South Korea and Japan.

Guangzhou, the Pearl River delta and Hong Kong constitute the growth core of south China. Taking Hong Kong as a bridge, overseas Chinese and foreign capital and investment, technical knowhow and international economic information can be injected into Guangzhou, Shenzhen, Zhuhai, the Pearl River delta and even down to many hinterland regions including Guangxi, Guizhou, Yunnan, Hunan and Sichuan. Hong Kong is a cosmopolis. A free port policy enables Hong Kong to receive the most updated economic information from all over the world. The excellent har-

bour with its modern facilities enables Hong Kong to serve as the best outlet for China's exports. Guangdong being next door to Hong Kong has experienced an excellent performance among the national economies during the reforms and opening period (see Table 9). The enormous injection of Hong Kong investment and Guangdong's intimate relations with Hong Kong have formed the key parts of the acceleration of Guangdong's economic development. The links in an economic chain go through from Hong Kong to Guangzhou, Shenzhen, Zhuhai and some key cities in the Pearl River delta such as Shunde, Dongguan, Nanhai, Foshan, Xinhui, Zhongshan. And the trickle-down effect spreads out over the neighbouring regions. Guangdong's light industrial products, particularly the durable consumer goods, have been very popular all over China. Guangdong province has had the ambition to take a further step and catch up with the other four small dragons in Asia in the near future so that a variety of sophisticated manufacture goods can be furnished to domestic and international markets.

Table 9 Economic Growth Indicators of Guangdong vs Whole Nation

Average growth rates	In 1980 invariant prices			
	Guangdong		Whole nation	
	1953-78	1979-89	1953-78	1979-89
National income	5.3	11.6	6.0	8.7
Gross output value of agriculture and industry	7.7	15.4	8.2	10.9
Gross output value of agriculture	3.5	4.5	2.7	5.9
Gross output value of industry	10.6	17.8	11.4	12.4
Public revenue	6.8	11.9	7.2	9.1
Commodity retail sales of society	6.1	20.2	6.9	16.2

Source: As for Table 2.

The second growth core consisting of the east coast of Fujian is just on the other side of the Taiwan Strait. Fujian takes advantage of its countrymen residing in Taiwan and so receives huge investments from there. Owing to successful foreign trade, Taiwan was able in the 1980s to accumulate foreign exchange as high as US\$90 billion, resulting in a national saving ratio of around 40%. On the other hand, a way for the capital funds to find outlets outside the narrow domestic market has been to invest them in the outside world. And Fujian is the best choice among the many alternatives simply because of its kinship ties with many Taiwanese.

Although the possible economic connection between Fujian and Taiwan resembles the one between Guangdong and Hong Kong, yet the political situation of these two cases is quite different. Nevertheless, the Taiwan government has relaxed the constraint over Taiwanese making investment in mainland China. Moreover, mainland China has been willing to offer more favourable concessions to the Taiwanese than to other overseas investors.¹⁴ There is still plenty of room for Fujian to promote the economic relations with Taiwan, given the fact that the latter has a bigger land base, more population and a stronger industrial base than Hong Kong.

The third growth core takes Shanghai as the centre, spreading over the Yangtze River delta. Shanghai has long been the largest economic centre in China. However, the closed economic system in the pre-reform period had made the industrial and commercial base in Shanghai become totally dilapidated. The city of Shanghai is over-populated, and the cost for rebuilding the city is too high to be feasible alone. An alternate to reestablishing Shanghai in the position of a growth core is to develop a new base, Pudong. Pudong project is gigantic and so ambitious that the central government wants to make it comparable to Hong Kong.

In order to help Shanghai fulfill its function as a growth core, the crucial issue is to make possible for Shanghai to keep in good contact with the outside world. The realization of this objective no doubt will be accelerated by the presence of more overseas capital,

technical knowhow and investment injection into it, and consequently the greater the chance that Shanghai will become a comprehensive metropolis with both commercial and industrial activities rising to the international level.

The fourth growth core consists of the Shandong peninsula surrounded by many deepwater ports such as Qingdao, Weihai, Yantai, etc., which characterize the superb position of the peninsula to develop foreign trade. Geographically, Shandong peninsula has the advantages of being the nearest distance to South Korea and Japan, and having vast hinterlands, including Shandong *per se*, Hebei, Henan, Shanxi and Shaanxi, which are endowed with minerals, petroleum and other natural resources. There is a great potential for the core to develop heavy and light industries and their combinations, provided the technology, capital and skilled labour are available. A good exposure of the comparable advantages of the peninsula to the outside world is a way to attract the qualified overseas investors to initiate the promising industries. The trickle-down effect from the peninsula to the cities in the hinterlands is also an efficient way to promote the regional economies.

With a quite similar geographical location, the fifth growth core includes Bohai Bay and Liaodong peninsula surrounded by the eastern Hebei's steel and iron base, the petroleum bases in Shengli, Liaohe, Huabei, Dagang, and even in the Bohai sea, and the strong industrial base in Liaoning province. Obviously, the core has its comparative advantage in the development of a distinct industrial base, including the petrochemical industry, provided that the advanced technology is available.

On the peninsula, Tianjin, Dalian and Qinhuangdao, being excellent ports, have been developed as modern cities with a variety of industrial sectors. There are many potential ports along the coast line of the peninsula to be developed. The established ports will certainly accelerate their development if they can attract overseas investment and make a better linkage to the hinterland's economies.

The Middle

Apart from a self-striving for further growth, the development of the Middle relies much on a better connection with the East and even with the outside world as well. Given the absolute advantage in natural resources, there are at least two areas in the Middle where to promote its economy. The first area is the large scale reconstruction of its energy base. Within the region, Shanxi is a centre for exploiting coal. While the coal bases are also scattered in the central and eastern parts of Inner Mongolia, the northern area of Shaanxi, Ningxia, the northeastern part of Heilongjiang, and Huainan and Huaibei of Anhui, etc., a number of industries such as thermal power, metallurgical industry and modern coal-chemical industry and so on, can be established along with the development of coal resources.

The second area is the minerals resource in the Middle which can be developed into large-scale industrial raw and processed materials bases. There are quite a lot of mineral resources spread out in the Middle, for example, copper and tungsten in Jiangxi, phosphate and copper in Hubei, stibium in Hunan, bauxite in Shanxi and Henan, and aluminous and zinc minerals in Shaanxi. Moreover, there are also quite a few minerals such as nonferrous metals, iron ore, sulphureous minerals, etc., to be further exploited. Thus, a number of industries along with these minerals can be established, provided the advanced technology, skilled labour and capital are available, for example, steel and iron, coal chemical, and phosphate chemical industries. From raw materials to the processed industrial raw materials up to the final products, a comprehensive industrial system can be gradually reshaped.

The Middle has what the East has not in terms of the comparative advantage of resources endowment. But, with regard to more advanced production technology, skilled labour and fixed and working capital, the opposite is true. Obviously, there is certainly a case for interdependence between the Middle and the East and for possible cooperation between these two regions. Moreover,

the Middle also plays a role in borrowing from the East and leading the West.

The West

The West is the least developed region compared with the East and the Middle. However, the West is endowed with a vast land and enormous underground resources to be further investigated and explored. There is a great potential for the West to create a large scale exploitation of its resources until the end of the century or early period of the next century.

First of all, there are many scarce natural resources to be further explored and exploited in the West, for example, petroleum and rare metals in Xinjiang; phosphate, silicon and bauxite in Yunnan and Guizhou; water and electricity resources in the upper reaches of the Yellow River; iron ore, nonferrous metals, salt lake resources spread out over the whole region.

Secondly, there are some advantages for the West in developing farming and livestock products. A large area of grasslands with plenty of sunshine is conducive to developing livestock farming and agricultural products such as cotton, melons, fruits, beet, sheep, and horses, and so on.

Thirdly, some cities in the West, such as the Huhhot Hulunbeier league, Baotou region of Inner Mongolia; Urumqi, Shihezi of Xinjiang; Kunming of Yunnan; Xi'an of Shaanxi, Chengdu and Chongqing of Sichuan; Lanzhou of Gansu, can be established as heavy industrial zones specializing in heavy chemical industry, building materials industry, and other metals extraction and manufacturing industries. They can also play an important role in performing the linkage effects to other industrial sectors within and without the region.

Last but not least, there are some armament enterprises and heavy mechanical processing industries of quality in the Third Line.¹⁵ Any possible cooperation with the East and even with the outside world will certainly promote the productivity of these enterprises and enhance the linkage effects to other industrial sectors.

5.4 Four Types of Development

In a closing discussion, it may be useful to classify some four types of development for China's regional economies. The first one is the processing-oriented type. Shanghai, Beijing, Tianjin, Liaoning, Shandong, Hubei, Sichuan, Jiangsu, Zhejiang, Guangdong and Fujian all belong to this category. These regions, in general, are endowed with a better economic foundation, superior geographical location and better transportation conditions. With the exception of some individual mineral resources such as petroleum, most PMARs of this type own no major advantage in natural resources. The percentage share of the extraction and processing of raw materials industries to heavy industrial sector has been rather small. It is exactly in this sense that the development of processing manufacturing industry appears to be relatively promising.

The second one is the resource-oriented type. Inner Mongolia, Guizhou, Yunnan, Xinjiang, Gansu, Ningxia, Qinghai and Guangxi are in this category. Except for some individual provincial capital cities and some major cities surrounded by modern processing industries, they own predominantly a resource-oriented industrial structure, a less sophisticated manufacturing industry, a high share of extraction industry in heavy industrial sector. These regions are distinct from others for their abundant natural resources.

The third one belongs to the resource-processing mixed type. Heilongjiang, Hunan, Anhui, Henan, Hebei, Jilin, Shanxi, Shaanxi, Jiangxi are in this category. These regions own abundant resources, on one hand, and better capital goods equipment for resources exploitation and processing manufactures, on the other. Both the agricultural sector and traditional industries have a sound foundation. They have a good potential for further development.

The fourth type is a special one in which Hainan and Tibet are included, Hainan, a newly established province, and Tibet located in the periphery. Most parts of Hainan remain nearly untouched

as virgin land. It will take a long time for Hainan *per se* to develop its economy. Instead, a quick and feasible way to do it is to make a joint effort with overseas investors. Thus, Yangpu, a piece of land with total area of 30 km², has been leased for fifty years to a foreign company for development.

6. Concluding Remarks

As discussed in the text, the State injected tremendous factor inputs in the Middle and the West in the pre-reforms period. However, the motivation behind the action initiated originally came from the political mechanism instead of the economic one. Thus, there was little consideration of the economic proportionality issue in question. Conducting "guerrilla war" in investment without taking into account a minimum set of projects required certainly fell short of the big push effect. As a result, the economic efficiency of the industrial sector in the IR was extremely poor. And the continuity of the interior's reconstruction resting entirely with the unceasing support from the central government became the hard issue in the reforms period.

In 1958, the authority had attempted to establish an independent and self-sufficient industrial and economic system at the regional level, which had weakened the comparative advantage of regional economies. In addition, the market economy had been denied, and the price system seriously distorted by the government authorities. On the other hand, land, mineral resources, water resources and environmental resources had been gratuitously exploited without taking into account their opportunity cost. Thus, the parameters of regional industrial layout by the government authorities had to be full of shortcomings during the pre-reforms period.

However, a regional gradation development policy in favour of the coastal region was also adopted during the reforms period in the 1980s. Thus, the coastal region developed heavy industries which also engaged in producing raw and processed materials,

which made the room for the development of the Third Line industries even narrower. On the other hand, in order to survive, the Third Line region developed its own light industries even at a less comparative advantage. As a result, there tended to be a striking resemblance of industrial structure among the regions.

Nevertheless, a market economy has been adopted as the mainstream of national development strategy since the 1990s. As far as the regional economic development is concerned, we would like to make four concluding remarks.

First of all, the regional economic policy for various regions should be treated equally without discrimination. The policies making the terms of trade unfavourable to the IR should be rectified. An equal treatment policy would enable the creation of an interregional flow of production technology, capital, skilled labour and raw and processed materials under a voluntary exchange principle. The IR badly needs the inflow of some key production factors from the CR on a mutual adjustment and benefit basis rather than through the state guidance approach.

Secondly, the establishment of city cores is conducive to fostering the aggregation of qualified personnel, pooling together with capital funds and production technology because of the centralization effect. The development of the core city entails the linkage effects to the relevant industries in various localities and stimulates the periphery economies. Such a policy is particularly useful in the IR.

Thirdly, the development of light industries earns fast and superb benefits compared with the heavy industries. A selected list of light industries with a strong linkage effect to the heavy industries can be treated as the top priority for further development. The economic benefits so generated can also be used to develop other relevant industries. Such an action plays a "locomotive" effect to activate the regional economy, in particular, in the IR. And the individual private sector and joint household enterprises can certainly initiate many businesses.

Last but not least, each regional economy owns industries which have their comparative advantage. The lesser development

of the comparative advantage industries in some region has been constrained in one way or another by some bottleneck sectors. Thus, to surmount the bottleneck sectors is the major concern for the region to develop these priority industries. The IR has to pay attention to the poor conditions of transportation, communications, technology, labour and capital. If the IR centres cannot overcome the bottlenecks themselves, some external forces are to be attracted to do so.

Notes

1. In this study, the coastal region covers Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Guangxi, and Hainan, twelve PMARs; the interior region covers Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, Hunan, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia, and Xinjiang, eighteen provinces and autonomous regions.
2. See also Hsueh and Woo (1986).
3. The comparison of the per capita NI in the three regions appears to be $E/M : E/W = 124.5 : 172.1$ in 1952; $148.8 : 182.2$ in 1979; and $156.9 : 191.5$ in 1989 where E: the East; M: the Middle; W: the West.
4. See also Hsueh and Woo (1986).
5. According to the delimitation of administrative jurisdiction, the "Third Line" covered Sichuan, Guizhou, Shaanxi, Gansu, Qinghai, Ningxia, Henan, Hubei, Hunan and Shanxi.
6. See Wu and Dong (1991), p. 62.
7. The Third Line Topic Team of Sichuan Province's Academy of Social Sciences (1991), p. 511.
8. See also Chen (1991).
9. See Schumpeter (1961), Chapters I and II.
10. The Third Line Topic Team of Sichuan Province's Academy of Social Sciences (1991), pp. 506-507.
11. See also Gu and Tang (1989).

12. The Third Line Topic Team of Sichuan Province's Academy of Social Sciences (1991).
13. Tian Jiyun (1992).
14. Hsueh and Woo (1989).
15. Among the provinces and autonomous regions in the Third Line, are included Sichuan, Guizhou, Shaanxi, Gansu, Qinghai and Ningxia.

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中國地區經濟發展及其政策含義

薛天棟

(中文摘要)

本文借助於新近出版較詳盡的省際數據，乃能對中國地區經濟發展做出概括性的歷史分析。相對於東部，中、西部於五十年代初處於比較落後的地位。第一個五年計劃，特別是六十年代和七十年代初，因為中美、中俄交惡，引起毛澤東政治經濟效應，加強三線建設，中、西部得到較大的發展。唯一九七九年之後，隨着經濟改革與開放，在提高經濟效益和人民生活的方針下，東部又得到優先發展。

從政策層面來看，東、中、西部的地區發展應就整體國民經濟的最佳利益去考慮。短期的非平衡地區發展乃在促成長期的平衡地區發展，務使各地區遵循比較優勢原則，分工、合作而配合發展。

藉此，發展的先決條件於消極方面包括：消除對各地區不平等的待遇；以及區別對待的措施。於積極方面包括：在平等基礎上賦予各地區企業自主權；樹立非扭曲的地區價格結構；破除地區之間技術、人才、原料、物資流通的封鎖；以及克服地區交通、運輸和相關社會基礎設施的瓶頸。

本文進而闡論東、中、西部比較優勢之所在，以及地區經濟發展的五個成長核心和四種可能策略：加工主導型、資源主導型、資源—加工互混型、以及海南和西藏特殊型。

Figure 3 China's Regional Economic Development

