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## Promotion and guidance of regional economic cooperation on the marketization of Chinese national economy

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### ABSTRACT

China's progressive economic marketing reform is the result of many factors including the country's initial conditions, fundamental realities and value orientation. The economic marketing reform not only changes the bad condition in the planned economy and, to the most, releases and develops productive forces, but also promote people's overall income level and increase wealth in regions. However, the fact is China's progressive economic marketing reform is still going on. This paper employs Gini index and Theil index to analyze the regional economic cooperation and differences in economic marketization; also, it points out that regional economic cooperation is an important tool to promote economic marketization. In the regional economic cooperation, measures including system innovation, market mechanism promotion, changes in old-fashioned philosophy, accumulation of knowledge and the transformation of the government function are closely related to the level of China's national economy marketization; therefore, these measures needs special attention. This paper shows that the economically advanced eastern region of China has a higher level of economic marketization. In the regional economic cooperation, the flow of human resources and the rational allocation of resources are the key; the measures including system innovation, market mechanism promotion, changes in old-fashioned philosophy, accumulation of knowledge and the transformation of the government function can help to narrow the gap between different regions of national market and enhance the level of economic marketization.

### KEYWORDS

Economic marketization; Regional unbalanced development; Progressive economic marketing reform; Regional economic cooperation.



## INTRODUCTION

Market economy is a highly efficient economic system chosen by the human being after long times of research and practice; the developed countries rise up because of market economy and the developing countries are also employs it as a tool to allocate the resources rationally. Zhong points out that, by perfecting government policies, low-efficient investment can be reduced, fiscal waste can be avoided and more preferential policies can be implemented in the poor and remote areas, thus promoting the regional cooperation<sup>[1]</sup>. Gao puts it that there is a gap among the income levels of each region and the gap comes out as a result of urbanization, flow of resources and change in systems<sup>[2]</sup>. Yang finds out that urbanization is the main reason of the enlarged income gap but would help narrow it in a long term<sup>[3]</sup>. Gao says also, according to a mode, that the flow of human resources, in a long term, can help narrow income gap<sup>[4]</sup>. Zhang holds that there exists protectionism in China's economic development; in the long term development, protectionism hinders China's regional economic cooperation and the integration of national product and service market<sup>[5]</sup>. What's more, Jiang finds out that non-state-own economy can provide more job opportunities, reduce rate of unemployment, poverty, and the enlarging of income gap. This paper is to employ Gini index and Theil index to measure China's economic marketization in different historical period and different regions so that the author can reveal the unbalanced regional economic development, points out the correlation between regional economic cooperation with China's national economy marketization and illustrate that the deepening of the reform of China's economic marketization is feasible in promoting the country's regional economic cooperation.

## METHODOLOGY

To analyze China's economic marketization and regional economic cooperation, the author can employ the Gini index, the coefficient of variation, and the Theil index to demonstrate China's economic marketization in different historical period and different regions, to portrait its development and evolution, and to point out the promotion and path of regional economic and regional economic cooperation on the marketization of Chinese national economy. Davallion holds in his research that GDP per capita is a great index to show the regional income gap in a long term; in the method of calculation, the standard of choosing it is that it is decomposable. Therefore, this paper is to employ two decomposable indexes—the Gini index and the Theil index—to analyze the regional economic cooperation and the unbalanced economic marketization.

## HISTORICAL ANALYSIS OF CHINA'S REGIONAL UNBALANCED DEVELOPMENT IN CHINA'S ECONOMIC MARKETING REFORM

### Preliminary stage: joint development of coastal and interior area

At the beginning of economic marketization reform, China's economic development can just be divided in two parts: the coastal area and the interior area. The total GDP and GDP per capita of the coastal area and the interior area increase fast at the same time. (See TABLE 1 and TABLE 2) From the TABLE 3, it can be seen that, at this period, the Gini index is reduced, both the coastal area and the interior area, while the gap of regional economy starts to enlarge.

**TABLE 1 : Pace and total GDP of the coastal area and the interior area from 1978-1984**

	Year	1978	1979	1980	1981	1982	1983	1984
Coastal Area	Total GDP/ 10million yuan	1819.44	2041.00	2299.70	2515.53	2555.88	3121.51	3751.05
	GDP per capita/yuan	462.52	511.89	569.92	614.08	614.08	741.59	883.25
	Increasing Rrate of GDP/%	—	12.18	12.68	9.39	1.60	22.13	20.17
Interior Area	Total GDP/ 10million yuan	1585.03	1819.26	2007.39	2192.00	2428.03	2761.21	3251.75
	GDP per capita/yuan	294.28	333.25	363.30	391.67	427.54	480.97	560.39
	Increasing Rrate of GDP/%	—	14.78	10.34	9.20	10.77	13.72	17.77

**TABLE 2 : GDP per capita of the coastal area and the interior area from 1978-1984<sup>[10]</sup>**

Year	Absolute gap/(yuan per person in the year)	Relative gap/ %
1978	168.23	36.37
1979	178.64	34.90
1980	206.62	36.25
1981	222.41	36.22
1982	186.54	30.38
1983	260.62	35.14

1984 322.85 36.55

**TABLE 3 : Gini Index in the coastal area and the interior area & the regional gap of GDP per capita<sup>[10]</sup>**

The whole nation		Gini Index: the coastal area and the interior area					Per capita regional economic difference				
Gdp per capita	Gini index of the whole nation	Gini index of in the area			Region between the coastal area and the interior area	Gap in the whole nation	Gap among the areas				
		The coastal area	The interior area	The whole area			The coastal area and the interior area	The whole area	The coastal area	The interior area	
1952	109.4	25.2	5.8	5.5	11.3	13.8	55.1	30.2	24.8	12.7	12.1
1955	141.7	24.9	6.1	5.2	11.3	13.6	70.6	38.6	32.1	17.4	14.6
1960	237.1	32.6	9.3	5.6	14.9	17.7	154.6	84.0	70.6	44.1	26.5
1965	210.5	23.5	6.2	4.9	11.1	12.5	99.1	52.6	46.6	26.1	20.4
1970	245.5	24.9	6.7	4.7	11.3	13.6	122.2	66.6	55.6	32.7	23
1975	293.9	26.8	6.9	5.0	11.9	14.9	157.7	87.8	69.9	40.7	29.2
1978	360.7	25.7	6.6	4.3	10.9	14.8	185.2	106.5	78.7	47.9	30.8
1980	446.4	24.4	6.2	3.9	10.1	14.3	218.0	127.5	90.5	55.6	34.9
1982	527.5	22.8	5.4	3.6	9.0	13.7	240.1	144.8	95.3	57.3	38.0
1984	69.05	23.0	5.3	3.6	8.9	14.1	317.7	194.0	123.6	73.4	50.2

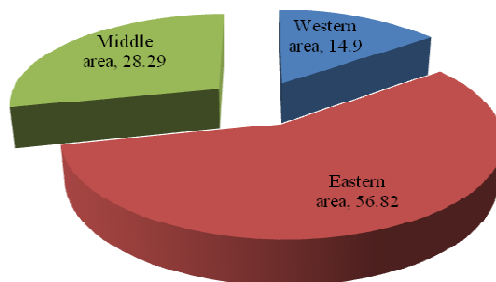
**Historical changes of China’s regional unbalanced development in China’s economic marketing development**

**Formation of three regions**

After 1985, the total GDP in the eastern area leaps forward while those of the middle and western area develop a little slower, especially the western area. In this circumstances, their percentages in the total GDP of the whole nation change greatly. From 1985 to 1991, the percentages of GDP in the western area in the total GDP keeps decreasing while that in the eastern area sees increase. (See in TABLE 4 and Figure 1).

**TABLE 4 : GDP of the eastern, middle and western area’s percentages change in the total GDP of the whole nation**

Year	1985	1986	1987	1988	1989	1990	1991
The eastern area	50.52	54.18	54.76	55.55	55.76	55.01	56.82
The middle area	34.09	31.61	31.24	30.44	30.19	30.19	28.29
The western are	15.39	14.20	14.00	14.01	14.06	14.80	14.90



**Figure 1 : GDP of the eastern, middle and western area’s percentages in 1991**

TABLE 5 GDP of the eastern, middle and western area’s percentages in the total GDP of the whole nation

From 1978 to 1984, the gaps of GDP among the three areas are enlarging, but the relative gap being narrowing. In 1978, the gap between the eastern and the middle area is 33.1%, then decreases to 31.1%. In 1984, the gaps of GDP among

the three areas are enlarging; the relative gap of the eastern and the western areas enlarges from 32.6% in 1985 to 39.9% in 1991. The relative gap between the eastern and western areas keeps enlarging in these years except in the year of 1990. (See in TABLE 5).

**TABLE 5 : Changes in the gaps of GDP among the eastern, middle and western areas**

	Absolute gap/%				Relative gap/ %	
	At the price of the year		At the price of the year of 1978		The eastern and the middle areas	The eastern and the western areas
	The eastern and the middle areas	The eastern and the western areas	The eastern and the middle areas	The eastern and the western areas		
1978	153.6	212.9	153.6	212.9	33.1	45.9
1979	160.9	224.0	157.7	219.6	31.1	43.3
1980	183.1	255.4	169.3	236.2	32.2	44.9
1981	195.6	285.2	176.7	257.6	31.7	46.2
1982	214.9	301.7	190.5	267.4	32.0	44.9
1983	218.4	325.2	190.7	284.0	29.8	44.4
1984	269.9	390.7	229.3	331.9	31.1	45.0
1985	341.0	474.1	266.2	370.2	32.6	45.4
1986	374.4	528.8	275.8	389.5	32.7	46.2
1987	431.3	645.7	296.1	443.3	31.7	47.5
1988	608.4	802.2	352.4	464.6	36.1	47.7
1989	685.7	897.7	337.2	441.2	36.8	48.1
1990	700.1	885.8	337.2	426.7	35.6	45.1
1991	900.9	1056.2	421.7	494.4	39.9	46.8

From 1985 to 1999, the Gini index in each of the areas keeps decreasing, which show that the gaps are narrows; however, the gaps among the three areas are enlarging for the Gini index increases from 16% in 1985 to 17.1% in 1991. (See in TABLE 6).

**TABLE 6 : The Gini index in the eastern, the middle and the western areas**

Year	Inside the area	Among the areas	In the whole nation
1985	6.9	16.0	22.9
1986	7.0	16.3	23.3
1987	6.8	16.6	23.4
1988	6.6	17.0	23.6
1989	6.3	17.1	23.4
1990	6.3	16.3	22.6
1991	6.3	17.1	23.4
1992	6.4	18.3	24.7
1993	6.7	19.6	26.3
1994	6.3	20.2	26.5
1995	6.1	20.2	26.3
1996	5.9	19.7	25.6
1997	6.0	20.0	26.0
1998	6.1	20.2	26.3
1999	6.0	20.8	26.8

In a word, China's economic marketization goes through great development. Compared with that at the beginning of the reform and opening up, the gap among the eastern, middle and western areas is enlarging. (See in Figure 2 and Figure 3).

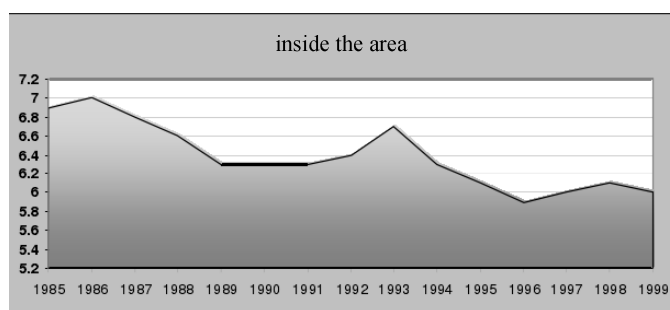


Figure 2 : Gini index inside three areas from 1985 to 1999

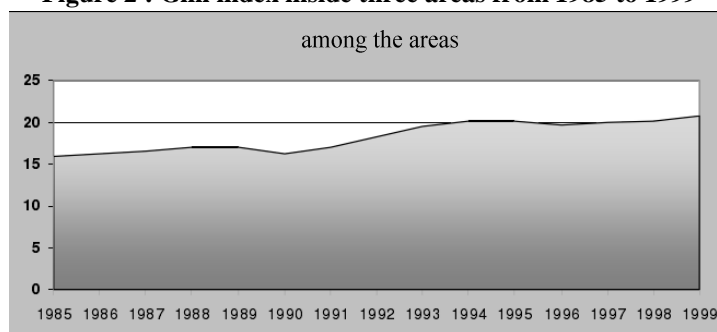


Figure 3 : Gini index inside among three areas from 1985 to 1999

**Yawning of gaps among three regions**

From 1992, China’s economic marketization reform is deepening and the country’s comprehensive national strength increases too. But the gaps among the three areas’ economic development level and the economic marketization keep enlarging. From the percentage of each area’s GDP in the GDP of the whole country, it can be seen that the eastern area takes the lead with increasing total GDP and GDP percentage in the GDP of the whole country. Also, its develops faster than those of the middle and western areas. (See TABLE 7).

**TABLE 7 : The areas of eastern, middle and western’s percentage in the country’s total GDP**

Year	1992	1993	1994	1995	1996	1997	1998	1999
The eastern area	57.60	59.18	57.96	59.52	57.73	57.86	58.27	58.89
The middle area	28.34	27.58	28.68	27.98	28.15	28.17	27.72	27.25
The western are	14.06	13.24	13.36	12.51	14.11	13.97	14.00	13.86

TABLE 8 shows that, if calculating with the price of 1978, the absolute gaps among the three areas’ GDP per capita keeps enlarging, especially that between the eastern and the western areas.; the relative gaps, increases too, which show the increasing differences since 1992.

**TABLE 8 : The changes of GDP per capita from 1992 to 1999 in the eastern, middle and western areas**

	Absolute gap/%				Relative gap/ %	
	At the price of the year		At the price of the year of 1978		The eastern and the middle areas	The eastern and the western areas
	The eastern and the middle areas	The eastern and the western areas	The eastern and the middle areas	The eastern and the western areas		
1992	1320.5	1514.2	586.4	672.5	43.5	49.9
1993	1874.8	2194.7	735.5	861.0	45.9	53.8
1994	2529.4	3029.2	815.4	976.5	46.7	55.9
1995	3086.7	3832.1	866.8	1076.1	45.5	56.5
1996	3525.7	4495.2	933.1	1189.7	44.3	56.5

1997	3897.4	5057.6	1023.3	1327.9	44.0	57.2
1998	4270.0	5490.9	1151.1	1480.2	44.8	57.7
1999	4643.1	5930.6	1290.3	1648.1	46.0	58.7

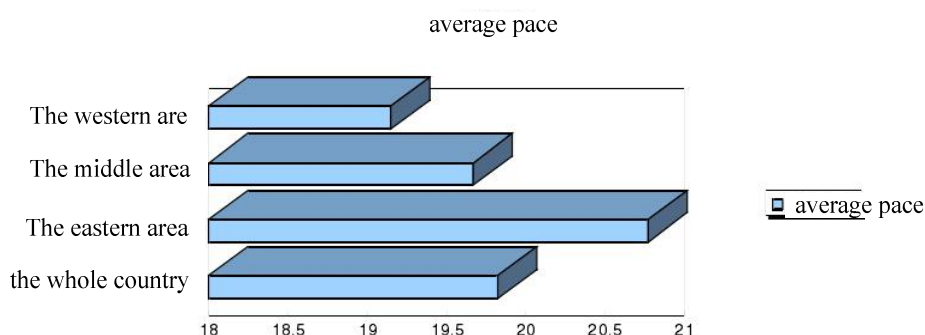
According to TABLE 9 and Figure 4, the author finds that the economy in the eastern area have absolute advantage over its pace and its ability to overcome crisis in the 1998 Aisa finance; the economy in the middle and the western area develop at a lower pace than that of the whole country.

### Condition of three regions after the western development

In 1999, the strategy of West Development was put forward. From TABLE 10, it is clear that the percentage of GDP of the eastern and the western areas increased 1.74% and 0.5 respectively from 2000 to 2002. after 2002, both areas' GDP account less in the national GDP. The Eastern, Middle and Western Areas GDP's percentage in National GDP (2000-2005) is shown as TABLE 10.

**TABLE 9 : The development pace of economy in the eastern, middle and western areas**

Year	1992	1993	1994	1995	1996	1997	1998	1999	Average speed
The whole country	23.61	31.24	36.41	26.13	17.08	10.95	6.87	6.25	19.82
The eastern area	25.45	35.58	24.93	35.51	18.07	11.25	8.14	7.27	20.77
The middle area	23.96	28.45	32.63	28.73	22.50	11.07	5.68	4.31	19.67
The western are	16.78	24.26	28.74	23.53	37.34	9.85	7.67	5.03	19.15



**Figure 4 : The development pace of economy in the eastern, middle and western areas**

**TABLE 10 : The eastern, middle and western areas GDP's percentage in national GDP (2000-2005)**

Year	2000	2001	2002	2003	2004	2005
The eastern area	57.29	58.60	59.03	58.49	58.38	59.63
The middle area	25.58	24.14	23.79	24.57	24.72	23.44
The western are	17.13	17.26	17.18	16.94	16.90	16.93

From the changes of GDP per capita in the eastern, middle and western areas, it is clear that the relative value of GDP per capita decrease in all three regions after 2001. from 2000 to 2002, the western area witnesses a fast development due to preferential policies while, after 2003, the eastern and western region witness a fair speed of economic development. (See in TABLE 11, TABLE 12 and Figure 5)

**TABLE 11 : Changes of gap of GDP per capita among the eastern, middle and western areas (2000-2005) <sup>[10]</sup>**

	Absolute gap/(Yuan per person in the year)		Relative gap/ %	
	The eastern and the middle areas	The eastern and the western areas	The eastern and the middle areas	The eastern and the western areas
2000	5352.07	6647.10	47.22	58.65

2001	7094.66	8133.35	53.45	61.27
2002	8024.29	9110.73	54.37	61.74
2003	8531.05	10089.68	52.32	61.88
2004	9975.49	11921.08	51.55	61.60
2005	10089.48	11887.46	47.60	56.08

TABLE 12 : Development pace of the eastern, middle and western areas (2000-2005)<sup>[10]</sup>

	2000	2001	2002	2003	2004	2005
The Whole nation	10.64	10.52	9.74	12.87	17.71	14.52
The eastern area	12.25	14.22	11.89	11.39	20.21	23.74
The middle area	9.51	5.40	9.44	16.11	21.17	14.90
The western are	8.47	12.49	10.59	10.79	20.17	21.42

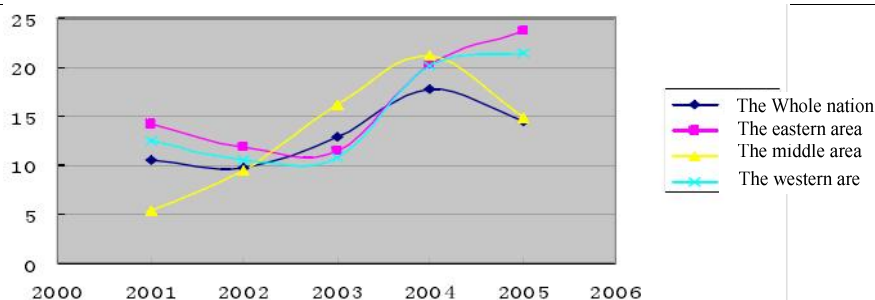


Figure 5 : Economic development pace in the eastern, middle and western areas and the whole nation (2000-2005)

CURRENT CONDITION OF CHINA’S UNBALANCED REGIONAL ECONOMIC MARKETING

Yan is one of the earliest researchers who devotes into the unbalanced regional development of China<sup>[8]</sup>; Chen also makes detailed analysis of China’s economic marketization and finds out that, until 1997, China’s marketization is over 60%<sup>[9]</sup>. China’s marketization has made some progress, and its progressive reform is stable and successful; there exist gap in the marketization level of each region. (See in Figure 6)

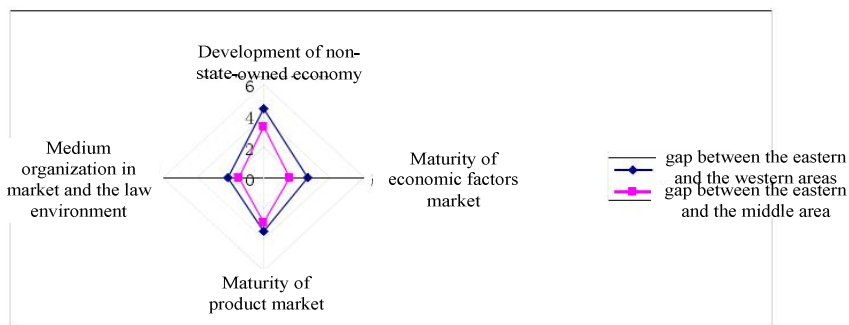


Figure 6 : Radar Map of the gap between the eastern and the western areas as well as that between the eastern and the middle area

CORRELATION ANALYSIS OF CHINA’S ECONOMIC MARKETING REFORM AND REGIONAL ECONOMIC COOPERATION

System innovation and market mechanism promotion

In the unbalanced regional economic development strategy, the eastern area gets the advantage and firstly makes system innovation and market mechanism regorm, which is an indication of regional economic marketization gap. The regional economic cooperation can help the middle area and the west area with new systems and market mechanism and promote their economic marketizaion level.

The eastern area gets the advantage and firstly steps out to employ the market mechanism in the form of economic activities, resources allocation, and economic factor flow and industry choices. After 1991, the financial market and different kinds of financial tool made great progress and the capital started to flow across regions. According to researeches, market mechanism and the system innovation makes the eastern area more powerful in attracting capital. In regional economic cooperation, the eastern area helps the middle and the west area set up new market system and economic system; by doing this, the middle and the west area make progress which is more effective and efficient that that made by preferential policies to China's national economy marketization.

### **Changes of Old-fashioned ideas and accumulation of knowledge**

The eastern area develops faster in economic marketization not only because its own location advantage and the overall economic policy of government, but also because of the changed ideas and accumulated technology. The open idea and thinking style decides that the eastern area can turn its resource advantage into production advantage, the market and competition advantage. Also, it makes it possible for the eastern area to enlarge the market and production and produce more, thus becoming a force for regional development.

Rational regional economic cooperation can help the middle and the west area to free their minds and boldly carry on reform. The flow of talents also helps the middle and the west area with more human resources accumulation and more knowledge accumulation.

### **CONCLUSION**

National economy marketization. This paper analyze regional economic development of each historical period in detail: at the beginning of the reform and open up, coastal and interior area make progress jointly; after 1985, the total GDP leaps forward in the eastern area and three economic regions come into being; after the West Development, the economy develops in a stable pace in three regions while the eastern region takes the lead in total economic volume and the level of economic development. According to researches, the eastern area also enjoys a higher level of marketization. In the regional economic cooperation, the flow of human resources and the rational allocation of resources are the key; the measures including system innovation, market mechanism promotion, changes in old-fashioned philosophy, accumulation of knowledge and the transformation of the government function can help to narrow the gap between different regions of national market and enhance the level of economic marketization.

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