

The West Development Strategy and Regional Disparity in China

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This paper studies regional disparity and its trend by dividing China into four regions: East, Central, West and Northeast. The result shows that income disparity of households within-the-region is experiencing convergence while the inter-region disparity is diverging. In modern China, income disparity mainly stems from inter-regional differentiation. Hence the widening of overall income disparity is therefore the consequence of the enlargement of such differences. This trend becomes more distinct despite the commencement of the West Development Strategy which began in 2000. At the same time, income disparity for urban households within different provinces in the West has fallen though not for rural households which have witnessed a slight increase. By inquiring about the factors causing the disparity, we found that both economic and non-economic factors have an influence. We predict that in the long term, income disparity between the East and the West will continue on an upward trend.

I. Introduction

Along with the high growth of the Chinese economy, there have arisen a number of new problems. Among them, regional disparity is attracting people's attention. According to the Development Report 2006, the *Gini* Coefficient in China in 1980 was 0.33, while this figure rose to 0.38 in 1988 and 0.45 in 2005 (the World Bank, 2006). China has therefore been classified as having one of the world's highest levels of income disparity. For the purpose of reducing regional disparity, the Chinese government therefore put forward the "West Development Strategy" in 1999, the "Invigoration of the Northeast Industrial Base" in 2003 and the "Central-region's

Economic Taking-off Strategy" in 2005. These policies, or development strategies, contain many implications, but among the most important is the desire to reduce income disparity across different regions, and eventually realize the goal of balanced development. As a strategic adjustment to the Chinese economy, and an important decision in making a balanced development, the "West Development Strategy" has now entered its seventh year. This paper will, based on figures of income status of the Western region, make an analysis of income disparity as well as think about its future trend.

As for the literature on income disparity in China, we can point to the general use of three approach:

(1) Single indicator approach, such as that adopted by Wei Houkai (Wei Houkai, 1992). It can be used to make a calculation and analysis of inter-region disparity on people's income.

(2) Mixed indicator approach, such as those adopted by Nie Hai (Nie Hai, 2007). These can be used to make a calculation and analysis of inter-region disparity of people's income.

(3) Other indicators reflecting income disparity. This mainly includes economic indicators combined with social development indicators and single indicators combined with comprehensive indicators (take the HDI indicators for example), such as that used by Hu Angang (Hu Angang, 2007).

In short, by adopting different indicators, we can get different results. But until present, scholars in China have not reached a consensus on this point. For the purpose of demonstrating general trends of the inter-region income disparity, especially the changes made since the practice of the "West Development Strategy", this paper treats 1999, the year when the "West Development Strategy" was put forward, as a baseline year, and then selects three indicators including per capita GDP, per capita annual disposable income of urban households and per capita annual net income of rural households. Via an analysis of absolute disparity and relative disparity, based on the three

indicators, the paper makes a further analysis of income disparity by adopting the *Theil Index*.

Taking into account the four economic regions as classified by the state as well as the general idea of the state economic development framework, i.e., the "West Development Strategy", the "Invigoration of the Northeast Industrial Base", the "Central Region's Taking-off Strategy" and the "East Region's New Stride in Development", based on the economic division of the East, the Central, the West and the Northeast, this paper will analyze the coefficient of variation of income disparity and its trend since the introduction of the "West Development Strategy".

II. Regional Income Disparity and the West Development Strategy

1. Regional disparity measured by per capita GDP

1) *Absolute disparity and relative disparity*

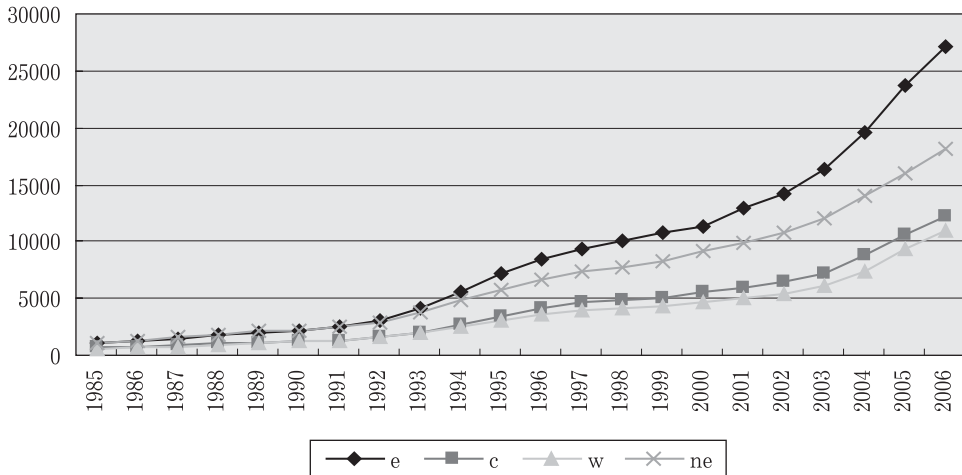
Just after China's opening to the outside world, the per capita GDP for people in the Northeast, in 1985, was 1,149.8 Yuan. This put it in first place compared with the other three regions (1,093.3 Yuan in the East and 572.1 Yuan in the West). By 1991 with the deepening of state reform and opening up, per capita GDP in the East region increased to 2,520.7 Yuan, 2,469.5 Yuan,

in the Northeast and for the first time per capita GDP in the East exceeded that of the Northeast - 51.2 Yuan higher than that of the Northeast. After Deng Xiaoping's speeches, following an inspection of South China in 1992, east China (especially the southeast coastline areas) enjoyed rapid development. This rapid development played a leading role in China's realization of the development strategy however, at the same time, the development gap between the regions, especially the gap between the East and the West further widened. Just one year before the practice of the "West Development Strategy" (1999), the ratio of per capita GDP of the East, the Central, the Northeast and the West was 2.51:1.19:1.92:1, but in 2006 this figure changed to 2.55:1.14:1.71:1. This shows that the regional gap between the

regions has continued to widen further. Similarly, in 1999, per capita GDP in the East was 6,474.4 Yuan, higher than that of the West, and in 2006 this figure rose to 16,319.8 Yuan. Therefore, the practice of the "West Development Strategy" could not reduce the gap in relation to per capita GDP between the East and the West, in fact the gap widened (Figure 1).

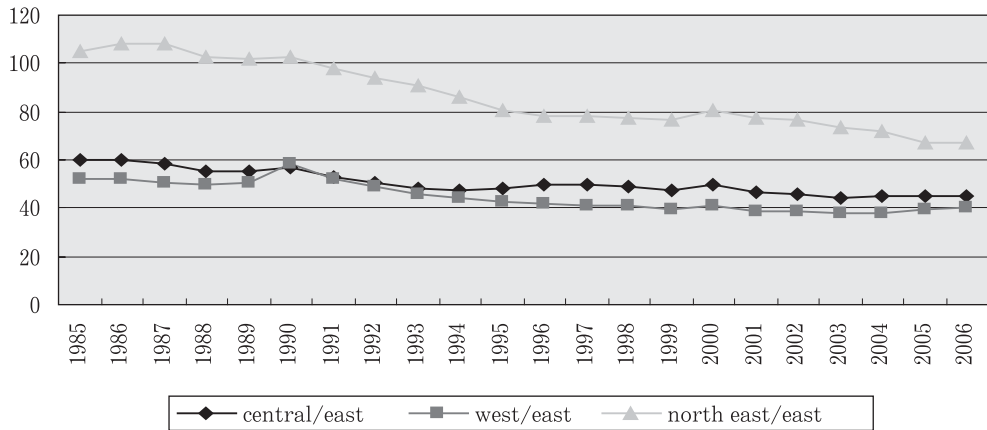
As for the relative gap, income disparity in the four regions from the period 1985-2006 has been increasing. Compared to the total amount of GDP of the East, the West accounted for 52.33% in 1985 and 39.98%, in 2006 (Table 1). Although the gap between the East and the West was reduced in the same year as the "West Development Strategy" was carried out, there was not a notable change in the following years.

Figure 1 Absolute disparity measured by per capita GDP (1985-2006)



Source: China Statistics Yearbook various years.

Figure 2 Relative disparity on Per capita GDP (1985-2006)



Source: China Statistics Yearbook various years.

Table 1 Regional disparity measured by per capita GDP (1985-2006)

Year	East	Central	West	Northeast	Relative Disparity (as % of)		
					Central/East	West/East	Northeast/East
1985	1093.3	656.6	572.1	1149.8	60.06	52.33	105.17
1986	1206.1	724.7	629.5	1308.4	60.09	52.19	108.48
1987	1430.5	835.6	726.5	1542.5	58.41	50.79	107.83
1988	1818.5	1006.6	908.1	1867.2	55.35	49.94	102.68
1989	2035.8	1123.9	1024.2	2071.3	55.21	50.31	101.74
1990	2161.5	1231.3	1268.7	2225.4	56.97	58.7	102.96
1991	2520.7	1328.1	1316.3	2469.5	52.69	52.22	97.97
1992	3139.9	1584.2	1537.8	2949	50.45	48.98	93.92
1993	4220.6	2024.9	1933.8	3841	47.98	45.82	91.01
1994	5652.8	2663.8	2482.2	4864.9	47.12	43.91	86.06
1995	7132.1	3455	3066.7	5717	48.44	43	80.16
1996	8405	4161.2	3525.7	6597.9	49.51	41.95	78.5
1997	9383.6	4682.4	3878.1	7357.4	49.9	41.33	78.41
1998	10090.5	4911.2	4122.5	7791.2	48.67	40.86	77.21
1999	10761.7	5105.5	4283.3	8227.7	47.44	39.8	76.45
2000	11364.4	5630.9	4687.3	9144.3	49.55	41.25	80.46
2001	12888.8	5995.5	5006.8	9935.1	46.52	38.85	77.08
2002	14184.9	6512.7	5463.9	10828.5	45.91	38.52	76.34
2003	16391.4	7244.4	6187	12077	44.2	37.75	73.68
2004	19637	8788.7	7429.9	14087.2	44.76	37.84	71.74
2005	23696.8	10576.2	9309.9	15934.5	44.63	39.29	67.24
2006	27189.5	12187.4	10869.7	18233.4	44.82	39.98	67.06

Source: China Statistics Yearbook various years.

2) *Disparity calculated by per capita GDP and the Theil Index*

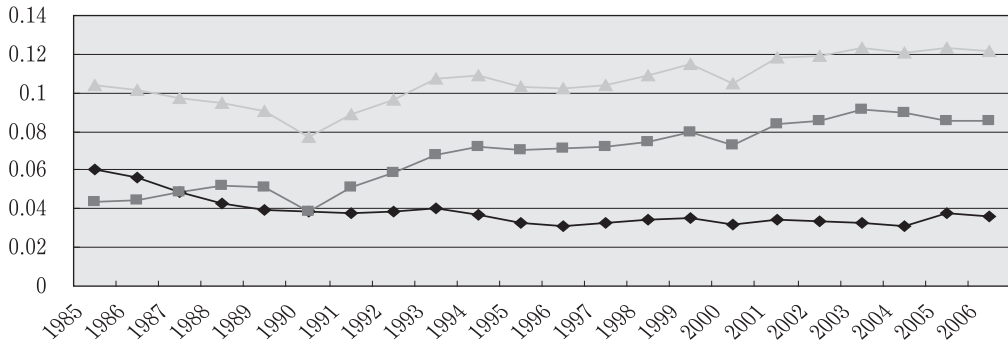
First, overall coefficient of variation on income disparity in the aforementioned four regions resembles a “V” shape. After the practice of the “West Development Strategy”, the coefficient of variation, except 2000, remains on a widening trend. The disparity in 2006 was 1.17 times more than that of 1985, or 1.06 times more than that of 1999. Therefore, the coefficient of variation of the four regions continues to increase. In economic

terminology we call it “club divergence”. (Figure 3, 4, Table 2)

Second, the coefficient of variation of inter-region disparity on income is also close to resembling a “V” shape, and it has almost continued along the same trend in the four regions since 1998. Starting from 1991, the figure was on an upward trend, and up to the time of the practice of the “West Development Strategy”, the inter-region disparity on income has been widened.

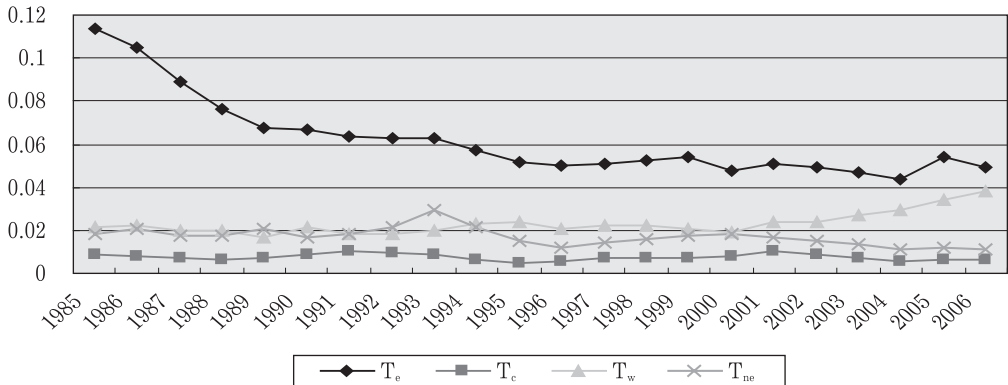
Third, the coefficient of variation of

Figure 3 Disparity of per capita GDP calculated by the Theil Index (1985-2006)



Source: China Statistics Yearbook various years.

Figure 4 Disparity of per capital GDP within 4 different regions(1985-2006)



Source: The figures are calculated and drew by the author based on the data published in China Statistics Yearbook various years.

Table 2 The Theil Index calculated by per capita GDP (1985-2006)

Year	T _e	T _c	T _w	T _{ne}	T _v	T _b	T
1985	0.1139	0.009	0.0217	0.0182	0.0606	0.0433	0.1039
1986	0.1047	0.0082	0.0222	0.0208	0.0565	0.0446	0.1011
1987	0.0893	0.0068	0.0196	0.0177	0.0487	0.0484	0.0971
1988	0.0762	0.0062	0.0197	0.0176	0.0431	0.0518	0.0949
1989	0.0675	0.0074	0.0165	0.0207	0.0391	0.0511	0.0902
1990	0.0666	0.0089	0.0217	0.0167	0.0388	0.0382	0.077
1991	0.0639	0.01	0.0179	0.0183	0.0379	0.0509	0.0888
1992	0.0629	0.0092	0.0185	0.0212	0.0383	0.0583	0.0967
1993	0.063	0.0085	0.0195	0.0293	0.0399	0.0676	0.1075
1994	0.0576	0.0062	0.0228	0.0212	0.0368	0.0718	0.1086
1995	0.0513	0.0048	0.0239	0.0151	0.0329	0.0705	0.1034
1996	0.05	0.0055	0.0206	0.0118	0.0314	0.0709	0.1023
1997	0.0506	0.0068	0.022	0.0145	0.0326	0.0718	0.1043
1998	0.0528	0.0075	0.0219	0.0158	0.0341	0.0748	0.1089
1999	0.0544	0.0075	0.0206	0.0171	0.0351	0.0795	0.1145
2000	0.0478	0.0081	0.0192	0.0184	0.0318	0.0726	0.1045
2001	0.0505	0.01	0.0235	0.0165	0.0343	0.0837	0.1181
2002	0.0495	0.0085	0.0241	0.0153	0.0336	0.0857	0.1193
2003	0.0467	0.007	0.0271	0.0134	0.0324	0.091	0.1235
2004	0.0437	0.0058	0.0298	0.0115	0.0309	0.0896	0.1205
2005	0.0538	0.006	0.0344	0.0119	0.0379	0.0857	0.1236
2006	0.0494	0.0066	0.0385	0.0115	0.0362	0.0857	0.1219

Source: The calculation is based on the data published in China Statistics Yearbook various years.

intra-region income disparity is not constant. In the East part of China the coefficient of variation was in decline while in the West this figure experienced a process of continuous decline before rising. In 1995, the *Theil Index* dropped to its lowest point, i.e., 0.0023, before returning to an upward trajectory. For example, in 1999 the *Theil Index* was 0.0206 and in 2006 it had risen to 0.0385 (Table 2).

2. Regional Disparity of Urban Income

1) Absolute disparity and relative disparity

In the initial stage of China's opening

up and reform, there was a slight difference in urban households' per capita annual disposable income across the four regions. For example, the per capita annual disposable income in 1985 in the East was 991.22 Yuan, while in the West it was 781.89 Yuan, with the disparity being 209.23 Yuan or 1.27 times more than that of the West. Along with the deepening of the reform, the disparity between per capita income of urban households has further increased. Just one year before the practice of the "West Development Strategy", per capita annual disposable income of urban households in the East was 7,522.84 Yuan, while for

those in the West it was 5,284.23 Yuan, i.e., the income of the East was 1.42 times more compared with that of the West. But in 2006 the per capita income in the East was 14,893.87 Yuan, and that in the West was 9,545.1 Yuan, i.e., the amount in the East was 1.56 times more than that of the West (See Table 3 and Figure 5, 6).

In terms of relative disparity, during the 1986-2006 period, disparity among the

four regions shows a rising trend. Although relative disparity between the West and the East was slightly reduced in the same year when the “West Development Strategy” was practiced, in subsequent years such disparity increased. The economic gravity that the West takes, in comparison with the total amount of the East, was 78.88% in 1986, and then reduced to 70.24% in 1999 and 64.09% in 2006 (See Table 3 and Figure 6).

Figure 5 Absolute disparity on capita annual disposable income of urban households

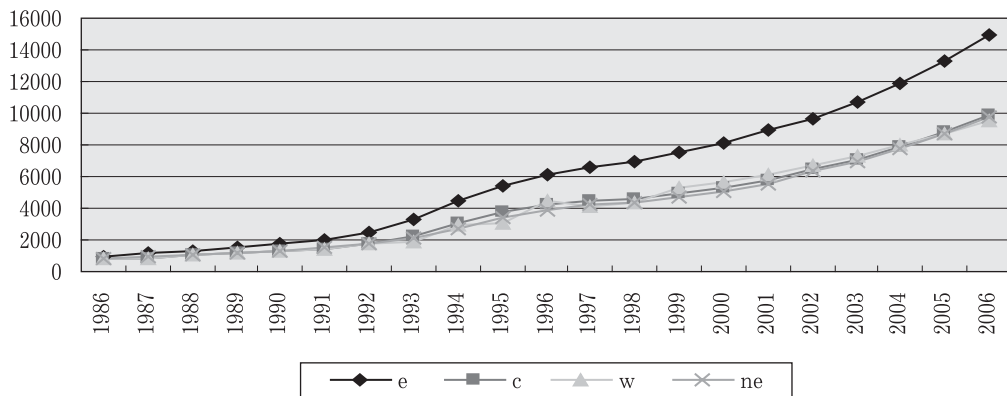
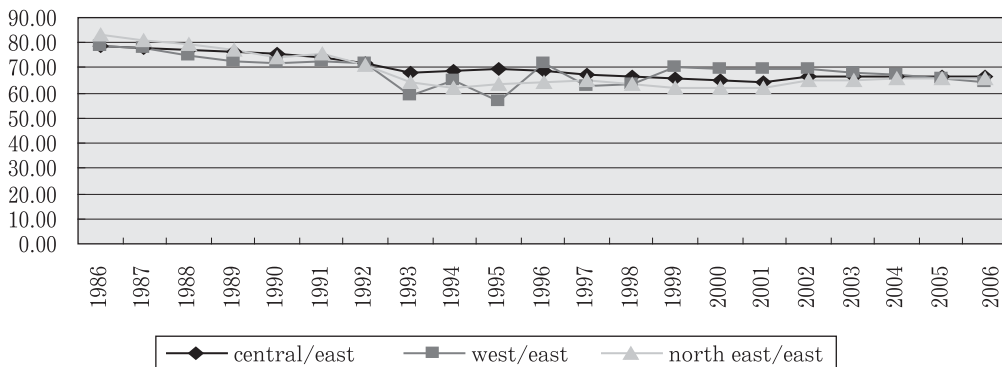


Figure 6 Relative disparity on capita annual disposable income of urban households



Source: The figures are calculated and drew by the author based on the data published in China Statistics Yearbook various years.

Table 3 Regional disparity of urban households (1986-2006)

Year	East	Central	West	Northeast	Relative Disparity (%)		
					Central/East	West/East	North east/East
1986	991.22	780.94	781.89	822.45	78.79	78.88	82.97
1987	1120.92	872.89	873.03	911.01	77.87	77.89	81.27
1988	1346.39	1033.7	1009.34	1065.04	76.78	74.97	79.1
1989	1583.91	1212.63	1149.15	1221.55	76.56	72.55	77.12
1990	1756.96	1334.16	1262.84	1296.51	75.94	71.88	73.79
1991	1986.69	1469.39	1438.24	1496.65	73.96	72.39	75.33
1992	2450.27	1757.42	1761.78	1738.73	71.72	71.9	70.96
1993	3240.58	2204.17	1916.66	2075.64	68.02	59.15	64.05
1994	4438.26	3041.44	2898.97	2740.29	68.53	65.32	61.74
1995	5411.36	3750.87	3083.56	3418.85	69.31	56.98	63.18
1996	6121	4194.54	4417.09	3927.02	68.53	72.16	64.16
1997	6568.91	4439.5	4117.95	4266.47	67.58	62.69	64.95
1998	6885.32	4600.12	4379.18	4364.1	66.81	63.6	63.38
1999	7522.84	4948.07	5284.23	4657.9	65.77	70.24	61.92
2000	8099.1	5271.8	5647.89	5026.9	65.09	69.73	62.07
2001	8891.28	5744.98	6171.79	5521.13	64.61	69.41	62.1
2002	9638.79	6432.48	6674.88	6295.1	66.74	69.25	65.31
2003	10678.32	7101.13	7235.39	6974.88	66.5	67.76	65.32
2004	11874.4	7886.51	7996.08	7772.96	66.42	67.34	65.46
2005	13261.59	8830.36	8700.13	8690.23	66.59	65.6	65.53
2006	14893.87	9911.27	9545.1	9775.67	66.55	64.09	65.64

2) *The Theil Index of urban households*

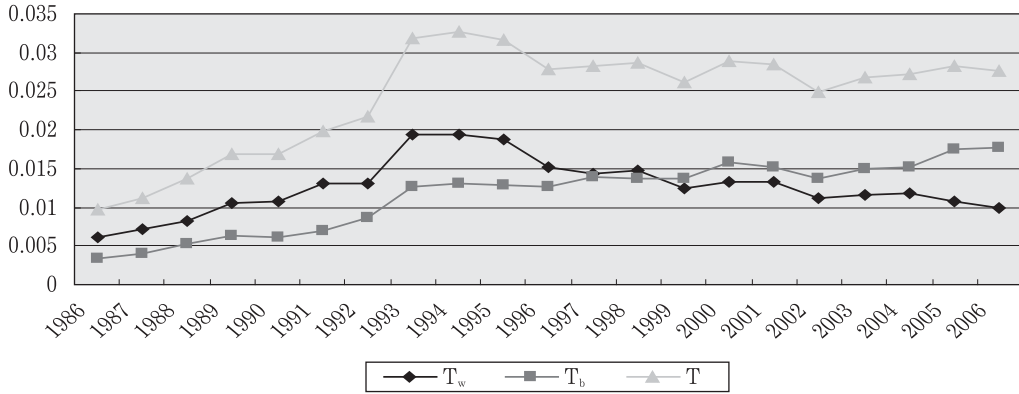
First, urban households in the four regions initially experienced a rising trend, followed by a fall and then a rise again.

In general, the coefficient of variation on intra-region disparity and overall disparity follow the same trend, though, at different stages, hence the contribution the two made to overall disparity are different. During 1986-1998, the widening of overall disparity was a result of the intra-region disparities, while in 1999-2006, it was caused by inter-region disparities. Just as intra-region per capita GDP, the inter-region disparity on households' income manifests itself in the

form of "divergence", and the widening of overall disparity is therefore the result of inter-region disparities. (Table 4 and Figure 7)

Second, differences among the provinces in the East region contribute the most to the inter-region disparity. During the 1985-1994 year-period, the disparity showed a rising trend, and then in 1994 it reached its highest point (0.0337). Although it fell then rose again in 1997. In fact, since the practice of the "West Development Strategy" the income disparity of urban households in the West fell until 2006 when the *Theil Index* was just 0.0012. (Table 4 and Figure 8).

Figure 7 Disparity of urban income calculated by the Theil index (1986-2006)



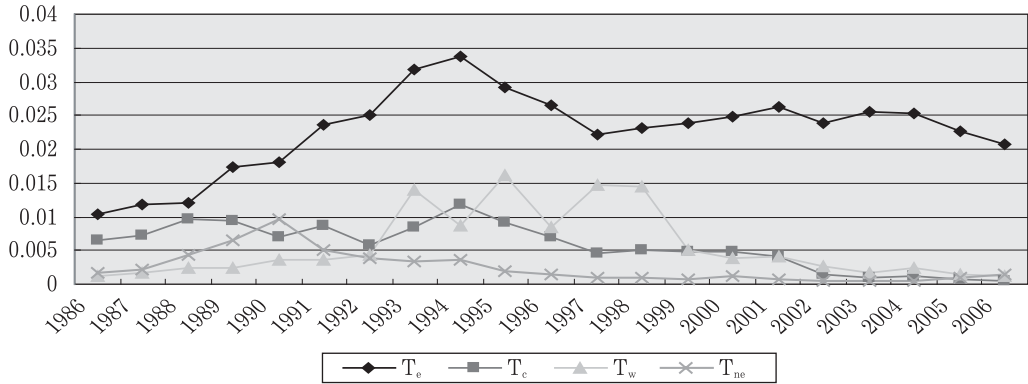
Source: The figures are calculated and drew by the author based on the data published in China Statistics Yearbook various years.

Table 4 Disparity of urban households calculated by the Theil index (1985-2006)

Year	T_e	T_e	T_w	T_{ne}	T_w	T_b	T
1986	0.0104	0.0066	0.0012	0.0018	0.0062	0.0033	0.0096
1987	0.0118	0.0073	0.0016	0.0021	0.0071	0.004	0.0112
1988	0.0121	0.0096	0.0025	0.0044	0.0083	0.0053	0.0136
1989	0.0174	0.0094	0.0025	0.0065	0.0106	0.0063	0.0169
1990	0.018	0.0071	0.0036	0.0097	0.0108	0.0061	0.0169
1991	0.0237	0.0087	0.0037	0.0051	0.013	0.0069	0.0199
1992	0.0251	0.0059	0.0044	0.0038	0.0131	0.0087	0.0218
1993	0.0319	0.0084	0.0139	0.0034	0.0193	0.0127	0.0319
1994	0.0337	0.0117	0.0086	0.0036	0.0195	0.0131	0.0326
1995	0.0291	0.0091	0.0161	0.002	0.0188	0.0128	0.0316
1996	0.0266	0.0069	0.0085	0.0014	0.0151	0.0127	0.0278
1997	0.0222	0.0046	0.0146	0.001	0.0143	0.0139	0.0282
1998	0.0231	0.005	0.0145	0.0009	0.0148	0.0138	0.0286
1999	0.0238	0.0047	0.0051	0.0007	0.0125	0.0137	0.0262
2000	0.0249	0.0048	0.0038	0.0011	0.0132	0.0158	0.0289
2001	0.0262	0.0041	0.0041	0.0007	0.0133	0.0152	0.0285
2002	0.0238	0.0014	0.0026	0.0004	0.0112	0.0137	0.0249
2003	0.0256	0.001	0.0017	0.0006	0.0117	0.015	0.0268
2004	0.0254	0.0012	0.0023	0.0005	0.0119	0.0152	0.0271
2005	0.0226	0.0008	0.0015	0.0009	0.0108	0.0174	0.0282
2006	0.0207	0.0004	0.0012	0.0014	0.0099	0.0178	0.0277

Source: The calculations are based on the data published in China Statistics Yearbook various years.

Figure 8 Disparity of urban income within 4 different regions (1986-2006)



Source: The figures are calculated and drew by the author based on the data published in China Statistics Yearbook various years.

3. Regional disparity of rural households

1) Absolute disparity and relative disparity

At the initial stage of the country's opening up and reform, there was no big difference in relation to annual per capita net income of rural households in the four regions. In 1986 the per capita income was 584.95 Yuan for rural households in the East, while for those in the West it was 314.3 Yuan. Along with the deepening of the country's

reform, this disparity has become bigger. A year before the "West Development Strategy" (1999), per capita income in the East region was 3,428.94 Yuan, and in the West it was 1,604.07 Yuan, or 1.51 times more than that of the West. By 2006, per capita income for households in the East reached 5,813.03 Yuan, but in comparison, the figure for the Western region was just 2,575.73 Yuan (the lowest among the four regions). (See Table 5 and Figure 9).

Table 5 Regional disparity of rural households (1986-2006)

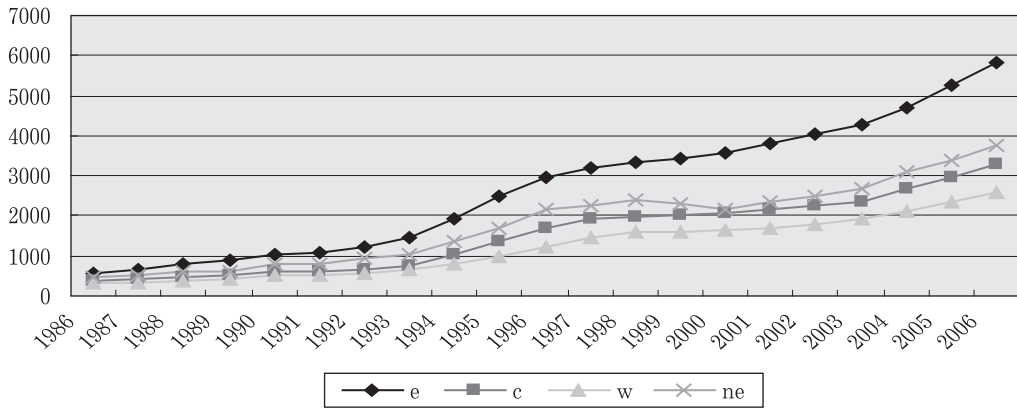
Year	East	Central	West	Northeast	Relative Disparity (%)		
					Central/East	West/East	North east/East
1986	584.95	392.58	314.3	488.63	67.11	53.73	83.53
1987	667.03	424.2	335.03	532.3	63.6	50.23	79.8
1988	807.3	471.15	398.21	626.8	58.36	49.33	77.64
1989	906.39	529.18	423.73	633.13	58.38	46.75	69.85
1990	1013.7	612.43	517.78	799.87	60.42	51.08	78.91
1991	1087.05	595.27	528.33	793.27	54.76	48.6	72.97
1992	1214.63	662.45	581.26	917.23	54.54	47.85	75.52
1993	1472.93	773.93	650.23	1027	52.54	44.15	69.72
1994	1921.98	1052.18	816.72	1362.9	54.74	42.49	70.91
1995	2495.01	1369.48	1009.92	1710.8	54.89	40.48	68.57
1996	2946.34	1711.6	1228.78	2152.5	58.09	41.71	73.06

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1997	3188.46	1921.27	1470.32	2265.37	60.26	46.11	71.05
1998	3329.61	1978.45	1580.09	2405.5	59.42	47.46	72.25
1999	3428.94	2015.9	1604.07	2309.17	58.79	46.78	67.34
2000	3587.76	2071.18	1632.32	2175.43	57.73	45.5	60.63
2001	3799.62	2159.55	1692.96	2340.13	56.84	44.56	61.59
2002	4032.78	2271.93	1791.73	2485.83	56.34	44.43	61.64
2003	4283.03	2369.93	1920.97	2657.9	55.33	44.85	62.06
2004	4690.55	2692.78	2135.78	3103.97	57.41	45.53	66.17
2005	5266.74	2958.02	2355.63	3391.83	56.16	44.73	64.4
2006	5813.03	3279.92	2575.73	3761.3	56.42	44.31	64.7

Source: The figures are calculated and draw by the author based on the data published in China Statistics Yearbook various years.

Figure 9 Absolute disparity on per capita annual net income of rural households (1986-2006)



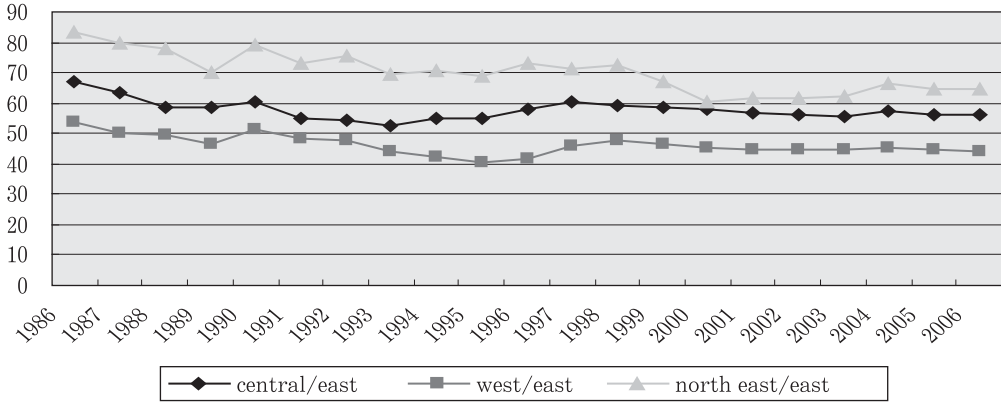
Source: The figures are calculated and draw by the author based on the data published in China Statistics Yearbook various years.

In terms of relative disparity, there appears to be a gradual widening trend across the four regions during 1986 and 2006. In 1986, the economic ratio of the West compared to the total amount of the East was 53.73%, while in 2006 the figure dropped to 44.41%, 2.47 points higher when compared with the year before the practice of the “West Development Strategy” or 9.42 points higher compared with the year 1986 (See Table 5 and Figure 10).

2) *The Theil Index for rural households*

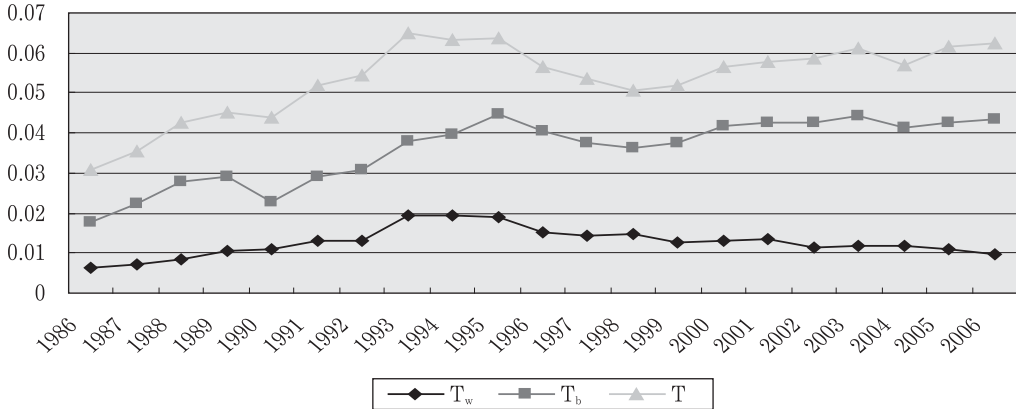
In 1993 income disparity of rural households reached its highest point. It subsequently fell in the following years, with 1998 witnessing its lowest point. With the implementation of the “West Development Strategy”, income disparity began to widen. As already mentioned, inter-region disparity has paralleled the overall development trend. Moreover, the rate of inter-region disparity was higher than intra-region disparity. In a word,

Figure10 Relative disparity on per capita annual net income of rural households (1986-2006)



Source: The figures are calculated and drew by the author based on the data published in China Statistics Yearbook various years.

Figure11 Disparity of rural income calculated by the Theil index (1986-2006)



Source: The figures are calculated and drew by the author based on the data published in China Statistics Yearbook various years.

disparity during such a period mainly manifested itself in the form of inter-region differences. (Table 6 and Figure11).

As for the trend of intra-region disparity on income, disparity within the East region was higher than those of other regions. Between 1985 and 1993, this figure kept on widening, with 1993

being the high water-mark (0.0523). In subsequent years this figure began to fall, and in 2000 it reached its lowest point. However, the within-region disparity in the West has kept its high trend ever since 1991 despite the fact that the overall figure was still lower compared to that of the East region. (Table 6 and Figure 12).

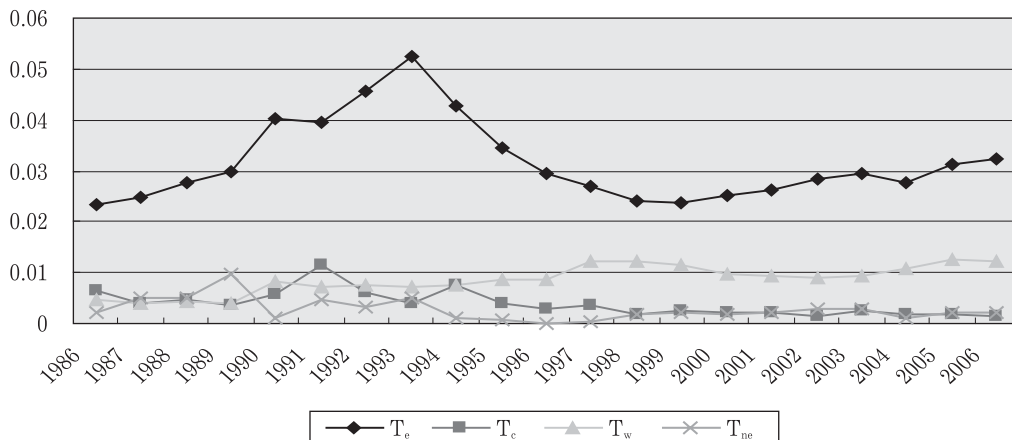
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Table 6 Disparity of rural households calculated by the Theil Index (calculated by per capita annual net income (1985-2006))

Year	T_e	T_c	T_w	T_{ne}	T_w	T_b	T
1986	0.0233	0.0066	0.0048	0.0022	0.0062	0.0178	0.0307
1987	0.0248	0.004	0.0038	0.0052	0.0071	0.0223	0.0355
1988	0.0276	0.0045	0.0044	0.0051	0.0083	0.0278	0.0428
1989	0.03	0.0036	0.004	0.0098	0.0106	0.0289	0.0453
1990	0.0404	0.0059	0.0083	0.0009	0.0108	0.0226	0.0438
1991	0.0397	0.0116	0.0072	0.0045	0.013	0.0292	0.0517
1992	0.0457	0.0062	0.0075	0.0033	0.0131	0.0306	0.0545
1993	0.0523	0.0038	0.0071	0.0052	0.0193	0.0378	0.065
1994	0.0428	0.0076	0.0075	0.001	0.0195	0.0397	0.0631
1995	0.0346	0.0041	0.0085	0.0007	0.0188	0.0447	0.0638
1996	0.0294	0.0029	0.0087	0.0001	0.0151	0.0406	0.0567
1997	0.0269	0.0036	0.0123	0.0003	0.0143	0.0375	0.0534
1998	0.0241	0.0019	0.0121	0.0017	0.0148	0.0361	0.0504
1999	0.0237	0.0024	0.0115	0.0021	0.0125	0.0375	0.0517
2000	0.025	0.0021	0.0096	0.0019	0.0132	0.0416	0.0564
2001	0.0264	0.002	0.0092	0.0023	0.0133	0.0427	0.0579
2002	0.0285	0.0014	0.009	0.003	0.0112	0.0425	0.0586
2003	0.0293	0.0025	0.0094	0.0029	0.0117	0.0442	0.0611
2004	0.0277	0.0017	0.0109	0.0011	0.0119	0.0412	0.0571
2005	0.0311	0.0018	0.0126	0.0021	0.0108	0.0428	0.0614
2006	0.0324	0.0013	0.0123	0.0021	0.0099	0.0436	0.0625

Source: Table 1-6, the data for the years of 1985~1998 are taken from Comprehensive Statistical Data and Materials in 50 Years of New China ; the data for the years of 1999~2006 from China Statistical Yearbook, NBS, Statistics publisher.

Figure12 Disparity of rural income within 4



Source: Table 1-6, the data for the years of 1985~1998 are taken from Comprehensive Statistical Data and Materials in 50 Years of New China ; the data for the years of 1999~2006 from China Statistical Yearbook, NBS, Statistics publisher.

Based on the above analysis, the author comes to the following conclusions:

a. From the perspective of both absolute and relative disparity, there was a big difference between the East and the West in terms of per capita GDP, per capita annual disposable income of urban households and per capita annual net income of rural households compared with the years before the “West Development Strategy”. Contained within the figures the coefficient of variation of absolute disparity on per capita GDP was higher than the per capita annual disposable income of urban households and per capita annual net income of rural households. But from the perspective of the relative coefficient of variation, per capita annual disposable income of urban households was higher than per capita GDP and per capita annual net income of rural households.

b. According to the per capita GDP disparity via the *Theil Index*, overall disparity did not reduce since the adoption of the “West Development Strategy”, on the contrary it has widened. Meanwhile, the inter-region disparity has kept an identical pace with the level of overall disparity. After the practice of the “West Development Strategy”, the trend of inter-region disparity has been upward although there has been a slight reduction in recent years. But from the perspective of intra-region disparity, disparity of the East coastline provinces

reduced slightly, while for the West it kept on widening. This indicates that the gap between the less-developed provinces in the Western region become wider compared with those developed provinces in the East.

c. Through the study of per capita annual disposable income of urban households and per capita annual net income of rural households via *Theil Index*, we know that ever since the introduction of the “West Development Strategy”, intra-region income disparity for households has manifested itself in the mode of “convergence”, while for inter-region households it has manifested itself in the form of “divergence”. The widening of overall disparity was the result of the widening of differences between the regions. With regard to intra-region disparity, urban households’ income disparity has been declining ever since the commencement of the “West Development Strategy”, whereas for that of the rural households it has widened a little.

III. Factors Causing Regional Disparity and its Future Trend

There are many factors influencing one country/region’s income disparity. In general, income disparity is not only influenced by economic development and economic structure, it is also influenced by the system or policy factors. In this

sense, factors that have influenced the region's economic development since the practice of the "West Development Strategy" are as follows.

1. Unbalanced development is the main reason causing disparity

Of the four economic regions, the development level is not so even at the moment. The economic growth in the East is faster than that of the Central, the West and the Northeast. For example, during the "10th-five-year-plan" period, the growth rate of per capita GDP in the East was 12.4%, whereas for the West it was 11.1%. Owing to the fact of rapid development, the regional economy is gradually concentrated in the East region. This lack of developmental equilibrium will inevitably lead to the shift of economic activities from the West to the East, and therefore the disparity between the regions will continue to grow.

2. Rapid economic growth in western region has yet to benefit local farmers

During the 10th-five-year-plan, along with the advancing of some development strategies such as the "West Development Strategy", the "Promotion of the Northeast Industrial Base", etc., the central government implemented a number of policies that provided preferential treatment to the Central and the West in terms of technology, talent

and policy, which has further accelerated the region's economic development. In recent years, the investment made in fixed assets has increased at a high rate especially in certain large-scale infrastructural projects, ecological development and environmental protection, etc. During the 2000-2005 year-period, the amount of investment made to the fixed assets was 611.1 billion Yuan, increasing by 23.5% per year (the country's overall rate of increase was 21.9%), and its economic weight in relation to the whole country increased from 19.2% to 20.1%. This has come in the form major projects such as the Three Gorges Project (Phase II), the Transforming of Gas from the West to the East, the Delivery of Power from the West to the East, the Diversion of Water from the South to the North and the Construction of the Tibetan Railway. But these major projects proved unable to promote the development of affiliated industries. This meant that local people failed to receive direct benefits from them, which meant that the widening of inter-region income disparity continued.

From a development perspective, the East region, by making avail of its location and industrial advantages has enjoyed rapid expansion. Some industries in the Yangtze River Delta area, the Zhujiang River Delta area and the area around Beijing and Tianjin are now in the leading position in China. In addition

they also possess strong global competitive power. In the case of the Western region however, income disparity is likely to be further widened if the government fails to transfer its economic growth model and make adjustment for the specific local economic conditions.

3. The country's macro-policy has yet to bring about the goal of coordinative development between the four regions.

With the adoption of the state's macro-economic adjustment policy and the emergence of new characteristics in economic development, the Western region, with its weak economic power and industrial development, now faces severe challenges in relation to its future development. In 2006 the level of investment for the infrastructure sector, at national level, was 24%, but for some provinces in the East this figure reached as high as 45%. In contrast, the figure in some provinces in China's west region dropped to 20%. In fact, while the state government seems to care too much about the overall operation of the national economy, it fails to consider the industrial grade and development level of different regions. In the West, for example, the main industries include coal and other energy resources. If the state government limits the development of coal and power generating industries, the west is likely to encounter severe difficulties making a balanced

development between the regions even more problematic.

4. The uneven development of private enterprises is one of the main reasons for widening the regional gap.

Upon starting the reform and opening up process, the fields where a lot of entrepreneurs or technical-oriented enterprisers have emerged are concentrated in the private sector. In the East, the development space for private enterprises is relatively big, while this is a weak point in the West. Although in the West and the Central regions, the private sector also witnessed a rapid development speed, its speed and scale is still far behind that of the East. Just take the amount of investment made to the fixed assets as an example. In 1999 investment made to this sector accounted for 32.05% of its total economic amount, but in 2005 this figure rose to 53.10%. In the same period, the total amount of production value gained by the private sector in the East was 2.4807 trillion Yuan, accounting for 27.94%, of the national level and as a comparison, the total amount of production value gained from private sector in the West was 884.53 billion Yuan, or 9.96% of the national level (Table 7 below). Therefore, people in the East region have more opportunities to become rich than those in the West, and thinking about the long-term perspective this disparity is likely to continue.

Table 7 Total investment in fixed assets by ownership and region in 2005

Unit: 100 million Yuan, %

Year	Total	State-owned units	Collective-owned units	The private sector	Share
1999	29854.72	15947.77	4338.554	9568.399	32.05
2005	88773.61	29666.92	11969.65	47137.05	53.1
East	45626.3	12134.87	8684.151	24807.28	27.94
Central	16145.55	5780.994	1641.51	8723.048	9.83
West	17645.04	7768.922	1030.823	8845.3	9.96
Northeast	7678.818	2647.247	613.1629	4418.408	4.98

Source: China statistical yearbook 2006.

5. The unbalanced development of sectors between regions is another factor of the increase of the inter-regional disparity.

Due to the lack of enough investment and market, industrial development in China is mainly concentrated in the East. This leads to an unequal development between regions. In the East, the development speed is relatively fast and its primary industry just accounts for small percentage (7.9% in 2005) while its secondary and tertiary industries account for 51.6% and 40.5% respectively. With the heightening of industrial structures, the comprehensive competitive power of the East region will be enhanced accordingly, whilst for the Western region this process remains at a relatively lower level. In the Western

region in 2005, the ratio between the three industries was 17.7:46.8:39.5, therefore, the ratio of the primary industry is still higher than the other two sectors. As the environmental conditions in the West is quite harsh, it faces frequent natural calamities such as drought, floods, hailstorms, pests, etc., agriculture production is quite unstable, hence increasing farmers' income is difficult to realize. (Table 8 below).

6. The central government's restrictive policies on regional economy has adopted by the affects the levels of income disparity between the different regions.

According to the government's plan, in the period of the 11th-five-year-plan, there are 22 areas which are prohibited

Table 8 Composition of GDP

Unit: 100 million Yuan, %

Region	GDP	Primary	Secondary	Tertiary	Composition
East	109924.6	8681.83	56673.16	44569.65	7.9 : 51.6 : 40.5
Central	37230.3	6204.57	17412.66	13613.07	16.7 : 46.8 : 36.6
West	33493.31	5924.63	14331.62	13237.06	17.7 : 42.8 : 39.5
North east	17140.78	2192.62	8505.79	6442.37	12.8 : 49.6 : 37.6

Source: China statistical yearbook 2006.

for further development, of them 17 are located in the Western region. The present situation in the West requires it to direct its attention to energy development and resource processing industries as its main focus. However, most of the industries are high-polluting and energy-intensive. In other words, the industrial structure in the West remains tied to the second industry and is characterized as a resource based economy. Apart from coal and energy industries, other industries such as chemical, steel, automobile, equipment manufacture, building material, textile and metallurgy represents new potential areas of growth, but as the state government seeks to restrict the development of high-polluting and energy-intensive industries it is the West where the impact falls disproportionately leading to a situation where the gap with the East continues to widen.

7. Disequilibrium of the development of social undertaking is another reason for the widening of income disparity.

Along with the practice of the “West Development Strategy”, and the start-up of some new projects such as strengthening infrastructure construction, the protection of the ecological environment as well as the transfer of financial support from the East to the West, leading to a rise of income levels for both rural and urban households.

Nevertheless, owing to the incomplete infrastructure facilities, weak ecological condition and relatively backward development levels across a range of other areas, the Western region could not be expected to alter its situation so rapidly. Under such circumstances its income disparity with the East region will remain and may well continue to increase.

In the Western regions, especially in poor rural areas, the bad natural condition and insufficient resources made to compulsory education and public health-care sector has lead to the shortage of teaching resources and a deterioration of public health. In addition, the region’s heavy reliance on agricultural products makes it unrealistic to expect people’s incomes to grow. Therefore, how to increase the income of such people remains a difficult issue to resolve.

In recent years, with the cultivation of featured industries, the self-developmental ability of the Western region is greatly increased. It is clear that today’s development made has laid a solid basis for future development, nevertheless the low level of technological innovation and an irrational industrial structure make it difficult for the region to shift resource advantages to economic advantages.

In all, with the smooth development of the “11th-five-year-plan” and the

heightening of the nation's comprehensive power, the central government will continue to increase investment to the Western region, which will be quite beneficial for improving the region's service level, optimizing human capital and increasing the economic benefit of enterprises. However, in a long-term, we may say that the gap will continue widening between the West and the East.

Ackowlegement

I am grateful to professor Stepen Day of Oita university for his great help of editing the paper.

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