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Is China's Regional Disparity Widening?

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Abstract

The fastest economic growth in China occurred in the Inner Mongolian Autonomous Region in these years. The economic growth of Shanghai was the fourth worst in the first half of 2005 in China. If this trend continues in the future, we can identify that China's regional income disparity has shifted from the divergence stage to the convergence stage as theorized by Deng Xiaoping's policy of the 'rich-first'. In other words, China is now moving towards the economic growth stage for the poor people from the economic growth stage just only for the rich people.

1 Rapid Decrease in the Poverty Population

Firstly, **Table 1** shows the trend of the population living in poverty in China. A remarkable 50% decrease of people living in poverty has been observed every five years, despite a continuous rise in the poverty line. My survey research on poverty-stricken farmers in the South-Xinjiang area in the Xinjiang Uygur Autonomous Region revealed difficulties in "escaping poverty" (Ohnishi, *et al*, ''A Quantitative Study on Farmers' Situations in the South-Xinjiang Poverty Area', *Research and Study,* No.29, 2005). The findings also showed a swift improvement in living standards in poverty-stricken areas.

Table 1 Rapid Decrease of the Poverty Population I n China

year	1978	1986	1992	1994	1995	1998	2000	2002
Poverty line (yuan)	100	206	317	440	530	625	625	627
Poverty Population (10 thousand)	25000	12500	8000	7000	5000	4210	3209	2820

The so-called "expanding income disparities" in China is merely the widening of the income gap between the rich and the poor. A rapid growth in earning, however, has allowed some people to escape from poverty, even if it increases the income gap. This "changes in the poverty population" is in reality one type of "income growth in the poor", which would not be caused by a mere redistribution of income. Therefore, the most important aspect of the poverty issue is the economic growth, which raises the question as to how China is achieving its present economic growth as a whole.

Thus, this situation poses the necessity to accept Deng Xiaoping's "rich-first" policy, which expects that only some people will become rich at first. In other words, attempts to eliminate poverty through income redistribution only, as in Cuba, will not lead to a decrease in the poverty population, but rather an economic collapse.

2 Need to be Cautious about the Statistics on "Expanding Income Disparities"

Another point is that we have to understand the context of "expanding income disparities". What type of disparities does it mean? Are they "disparities between the rich and the poor" (i.e. disparities in the individual income level) or "disparities between wealthy and poor areas" (i.e. disparities in the area-to-area income level)? In order to strictly identify this 'disparity', we need to know the correct statistical indicators, because many people in society are not aware of them, and a lack of understanding of the statistical indicator may result in a false perception of the current situation. The following is a specific example of the above.

In many cases, "income disparities between urban and rural areas" are measured by how many times more income urban dwellers have on average, compared to rural dwellers. For example, in the mid 1980s, the average income of city dwellers was 2.3 times more than that of people living in rural areas, but in 2003, it had grown to 3.5 times more. Therefore, this statistical indicator demonstrates the rapid widening of "disparities" during this period. However, there is a possibility that the potential favorable changes described below were occurred in this situation.

Chinese statistics show that the gap in incomes between urban and rural areas in China was 2.3 in 1984 and 1985, then the gap increased to 2.6 times in 1987, 2.9 times in 1989 and 1990, 3.2 times in 1992, and 3.5 times in 1993 and 1994. However, there is a possibility that during this period, the ratio of urban dwellers that make a higher income increased. For example, let us assume rural dwellers gained '1' income during this entire period, some urban dwellers gained '2.3' income, and others gained '3.5' income. If the ratio of urban dwellers that gained '2.3' income was 100 percent in 1984 and 1985, the average income of the urban dwellers was 2.3. However, if this ratio becomes 75 percent, 50 percent, 25 percent and 0 percent, the average income of the urban dwellers becomes 2.6, 2.9, 3.2 and 3.5. This possibility is shown by the next table.

Assumed Possibility of the 'Widening Disparities'

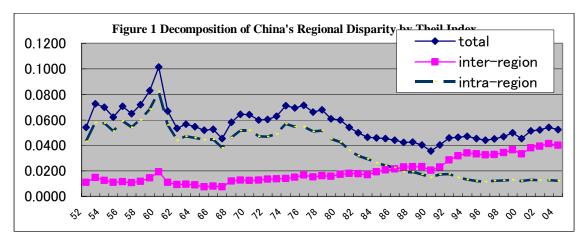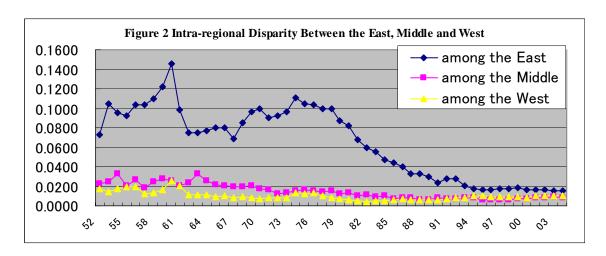| Year	Income of Rural Dwellers	Ratio of Urban Dwellers who Take 2.3 Incomes	Ratio of Urban Dwellers who Take 3.5 Incomes	Average Income of Urban Dwellers
1984-5	1	100%	0%	2.3
1987	1	75%	25%	2.6
1989-90	1	50%	50%	2.9
1992	1	25%	75%	3.2

| 1993-4 | 1 | 0% | 100% | 3.5 |

This is merely a hypothetical argument that establishes no proof in actuality. This hypothetical argument, however, suggests a potential theory that the "expanding of disparities" may have been caused by an increase in the wealthy ratio in the urban population, instead of a relative rise in incomes of the urban dwellers who gained '3.5' incomes. A disparity between individuals may jump to "3.5" from "2.3" in an early phase of development, but there is no change in the average earnings of those in the urban area if only one "rich person" gained "3.5". Thus, there is a possibility that disparities between urban and rural areas in general are deemed as growth in the number of "people achieving wealth first". The disparities are also interpreted as a fall in population of "the poor", which raises the possibility of a gradual decrease of poverty areas.

This paper focuses on the economic development in underdeveloped areas in China. If the true nature of the current trend of "expanding income disparities" is indeed as described above, this trend itself is a process in which each underdeveloped area will catch up. This denotes imminent economic progress in underdeveloped areas including northeast China in the near future.

3 Inter-regional Disparities among Eastern, Middle and Western Areas, and the Intra-regional Disparities among These Three Areas

I say this, because a fact outweighs the mere "probability". Please see the following two graphs. Regional disparities among the eastern (coastal area), western, and middle regions of China, in terms of inter-region and intra-region, are presented in **Figure 1**. This graph indicates the widening of disparities from 1990 and after the commencement of the reform and opening-up, attributes the widening to that of "inter-regional disparities", not "intra-regional disparities". It is presumed that "intra-regional disparities" were narrowing down from 1990 onwards.

Figure 1 Decomposition of China's Regional Disparity by Theil Index

Figure 2 Intra-regional Disparity Between the East, Middle and West

Source: Sanliang Mao, 'Regional Disparity and Regional Policy', in Ohnishi & Yano (2003)

The second graph **Figure 2** presents clearer details of improvement in "inter-regional disparities". A rapid decrease in intra-regional disparities was observed only in the east, despite unchanged disparities in the western and middle regions, which proves the reduction of "intra-regional disparities" expressed in the graph. The east had some specifically wealthy areas, such as Shanghai at that time, but also has a prominent acceleration of economic growth in a number of areas, including Beijing, Tianjin, Guangdong, Fujian, Liaoning, Shandong, Jiangsu and Zhejiang. The economic growth narrowed disparities in the east, but also produced an average income growth that caused these disparities to widen compared with other areas. Therefore, "inter-regional disparities" are "the reduction of disparities in the east". The findings reveal that future expansion of growth areas inland, including Wuhan, Changsha, Zhongqing, and Xi'an, will have a positive impact on the economy.
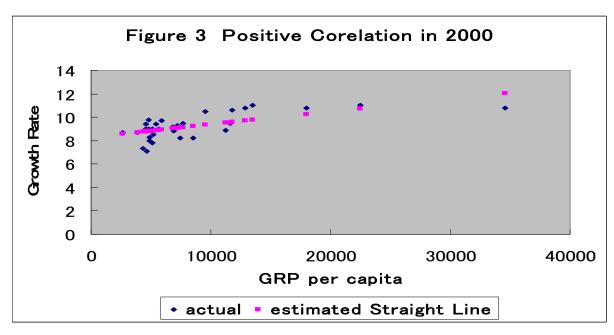
Therefore, the current Chinese economy also has been guided by Deng Xiaoping's "design". Although diverse issues in economic affairs should not be underestimated, of further importance is the acknowledgement of economic development laws present and functioning also in underdeveloped areas.
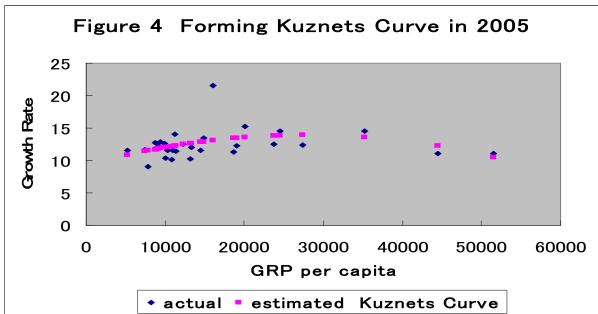
4   Kuznets Curve in the Chinese Regional Development

If it is true, Kuznets curve must be observed in the Chinese regional development, and actually this curve is gradually silhouetted on the graph of GRP per capita and GRP growth rate of the Chinese provinces. For example, **Figure 3** shows that Chinese provincial income disparity was increasing clearly in 2000, but now in 2005, **Figure 4** indicates that it's forming Kuznets curve, although still now number of the provinces in the convergence is not large. In these figures, estimated line and curve are also plotted.

Then, I propose some measurements of the degree of its clearness of the Kuznets curve. The first one is p-value of the estimated parameter of the squared of the GRP per capita of the provinces. If it is significantly small, we can reject null hypothesis which assumes there is no

Kuznets curve.

Figure 3 Positive Corelation in 2000
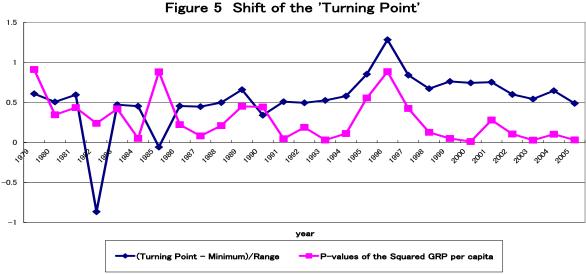

Figure 4 Forming Kuznets Curve in 2005

The second one indicates where the turning point between the highest and lowest GRP per capita provinces is. It can be measured by fraction of the range between the turning point and the lowest divided by the range between the highest and the lowest. If it is smaller near to zero, there is a wide phase of the divergence. These two sequences are shown in **Figure 5**.

The third measurement shown in **Figure 6** is skewness of the distribution, and its decreasing trend also indicates that density of the low income provinces is decreasing and the number of relatively higher income provinces is increasing.

Therefore, all these sequences show that its Kuznets curve is becoming clearer and clear for these years.. In summary, our original question whether provincial income disparity is in

divergence or in convergence becomes another question whether how much ratio of the provinces are in the convergence process. Only the latter question can answer each year's situation of the trend of the regional disparity, and only its sequences can investigate each years' situation of the change of the changes of the trend.

Figure 5 Shift of the 'Turning Point'

Figure 6 Correcting the Skewed Distribution of GRP per capita

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