經營學碩士 學位論文

A Study on the impact of Deng Xiaoping's policies on the Chinese regional inequalities

덩샤오핑의 개혁개방정책이 중국의 지역불균형에 미친 영향에 대한 연구

指導敎授 鄭鴻悅

2008 年 2 月

韓 國 海 洋 大 學 校　大 學 院

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本 論文을 杜翔의 經營學碩士 學位論文으로 認准함

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중국은 1978 년 개혁정책 이후부터 급속한 경제 발전을 이루었다. 이 개혁정책에는 주요한 두 가지 정책이 포함되어 있는데, 하나는 국가를 개방하는 정책이고 다른 하나는 일부 사람이 먼저 부자 되는 선부론 (先富論) 정책이다. 이 두 정책 모두 다 중국에 큰 변화를 가져다 주었는데, 정책적인 측면에서는 이전의 균등발전정책으로부터 불균등 정책으로 전환된 것이다. 이 이론들은 또한 중국의 등소평 이후 정부가 시행한 다른 정책에도 많은 영향을 주었다.

본 논문에서는 주로 중국을 개혁개방정책과 선부론(先富論) 정책 내용을 자세히 살펴보고 Range ratio, Mcloone index, the coefficient of variation & the weighted coefficient of variation, the Gini's Coefficient and the Theil's T Statistic 등과 같은 통계 모형을 이용하여 등소평의 지역 정책이 중국의 지역격차에 미친 영향과 등소평의 불균등 정책이 그 이후의 국가정책에 미친 영향에 대해 연구하였다. 마지막 결론 부분에서는 중국의 현재 커지고 있는 지역간 불평균에 대한 해결방법과 전략을 제시하였다.

Abstract

The impact of Deng Xiaoping's policies on the Chinese regional inequalities

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Chinese economy has grown fast from 1978 after the economy reform. During this reform, the most famous policies are the 'open door policy' and the 'get rich first policy'. These two policies brought Chinese governmental policies from balance to imbalance and also have impacted the other leader's policies followed Deng Xiaoping.

In this paper, I divided China into three regions and I will make research more details about the 'open door policy' and 'get rich first policy' by using some mathematics tools such as Range ratio, Mcloone index, the coefficient of variation and the weighted coefficient of variation, the Gini's Coefficient and the Theil's T Statistic to show the effects of Deng Xiaoping's policy on the regional inequalities and on the other policies. In the conclusion, I give some suggestions for China government to solve these inequalities' problems.

Chapter 1. Introduction

1.1 The background and purpose

After establishment of P.R.C., the most important economy reform has started from 1978. During 1978's reform, the leader of China, President Deng Xiaoping, took out two important policies which are 'the open door policy of China' and 'the get rich first policy'. These two policies have brought Chinese GDP growth as 7%~10% per year from 1978 to 2006, but the two policies transformed the national policy from Mao's balance policy to the imbalance policy.

The open door policy of China has taken place since 1978 and the first opening cities were the Shenzhen, Zhuhai, Shantou and Xiamen which have been designated as the special Economic Zone in Zhujiang Delta, the open policy of China was also taken place in since 1978 which let some people who were arduous and keeping to the law in their management, who were good at grasping the opportunity, who were apt to the market economy and applying the value regularity and do well in management, who had the retentive spirit, who mastered the modern knowledge, etc., had be rich first, and then the first rich people will let the followed be rich later.

These two policies must have caused the income gap and made the regional inequality. The purpose of this thesis is to use some mathematics model to calculate the change of Chinese regional inequality after 1978 and find what effect happened after the two policies of Deng Xiaoping have

taken place. The increasing inequality may cause many problems to counteract the growth of economics, imperiling the stabilization of society, even overthrowing the regime of the country.

After studying of the result that had been calculated, there are several suggestions following in this thesis.

1.2 The structure

In this thesis I aim to the time from 1978 when the regional policies exchanged. The thesis will have such structure.

In chapter one I give some introduction of this thesis and show the purpose of and simply structure of the thesis.

In chapter two I review the road of Deng Xiaoping's reform. This chapter will show what happened before the reform and the reform road of Deng Xiaoping.

In chapter three there are the introduction of main mathematics models that I've used which are Range ratio, Mcloone index, the coefficient of variation and the weighted coefficient of variation, the Gini's Coefficient and the Theil's T Statistic and the result of the inequality after calculate.

The Chapter four is the part to show the cause of inequality in China

The Chapter five shows the counteract policies of government and the impact of Deng Xiaoping's reform both on the following leader and on the opening city.

Chapter six is the conclusion part and I will conclusion the thesis and give some suggestion to settle the regional inequality of China.

Chapter 2. The road of Deng Xiaoping's reform

2.1 Economic situation before the 1978

After the PRC was established in 1949, the new government took over industrial enterprises belonging to the previous government of China. Private enterprises were tolerated for a brief period of several years. They soon became joint ventures. Then owners and managers were forced to surrender control to the new government, with some mangers remaining to administer the enterprises under new directions. For the key industries methods of central planning were adopted from the Soviet Union. The First Five-Year Plan was started in 1953. The government managed various state enterprises through some 20 ministries in the State Council. A State Planning Commission was established to direct and coordinate these ministries. Targets were planned in terms of output, and some important inputs and financial indices were transmitted to the enterprises. Under a system of material balancing used in the Soviet Union, important material inputs required were centrally distributed to the enterprises through a bureau of material supplies.

Since enterprises obtained their inputs through central allotment, surrounded their outputs for central distribution, and had no control over

their profits, they did not respond to prices. The main concern of enterprise managers was to obtain through skillful negotiations more than sufficient material and labor inputs to fulfill the production targets. They tended to understate the productive capacity of their enterprise in order to reduce output targets, to understate the productive capacity of their enterprise in order to reduce output targets, and to overstate the input requirements in order to ensure their fulfillment. Inefficiencies and wastes occurred under this system, as partly reflected in the underutilization of productive capacity and the large stockpiling of inventories in Chinese state enterprises.

Form the 1950s on the Chinese economic system did not remain static but was subject to two very serious political disturbances. One was the Great Leap Forward Movement from 1958 to 1961. The rapid formation of agricultural communes from April to Sentember1958 was itself a serious political disturbance. The second Five-Year Plan (1958-1962) was severely interrupted. Mistaken agricultural and industrial policies of the Great Leap caused famines and the curtailment of industrial output.[1] The other disturbance was the Cultural Revolution of 1966 to 1976. Having, lost political power in the early 1960s as a result of the failure of the Great Leap, Mao attempted to regain political control by appealing directly to the Chinese youth to engage in a Cultural Revolution. Economic planning and agricultural production were disrupted. Intellectuals and social groups other than the peasants and workers were victimized. Higher education practically ceased with total enrollment reduced form 674000 in 1965 to 48000 in 1970

[1] An official index of national income in 1952 prices was reduced form 202.1 in 1959 to 130.9 in 1962, and the annual death rate increased form 10.80 pre thousand in 1975 to 25.43 per thousand in 1960.

(Statistical Yearbook of China 1984, p 483).

Mao died in 1976. The Chinese people as well as many party leaders had been extremely dissatisfied with the affairs prevailing during the Cultural Revolution and the new situation called for a drastic change in political leadership and economic policy. Two years later, Deng Xiaoping became the leader of China, and the reform had begun during 1978.

2.2 The Economic policies of Deng Xiaoping

To all intents and purposes, at the 3rd plenum of the 11th central committee of the Chinese Communist Party held in Beijing between 18 December and 22 December 1978 marked the de facto assumption of power by Deng Xiaoping. With it came the beginning of a new phase of Chinese economic development as the Party committed itself to correcting what it called the 'structural imbalances' of the Chinese economy. It therefore signaled the end of the Maoist era. This largely symbolic purpose apart-Chen Yun took the view that the actual process of 'readjustment' did not begin until after December 1980- the plenum was very important in that it ratified a number of economic experiments.

Three phases of economic transition can be distinguished in subsequent years. After a furious debate on whether price reform should preceded privatization, it was decided to push ahead with the former. The idea of establishing joint-stock companies was rejected by the NPC[2] in 1986, and dramatic price reforms were announced in 1988. However, the commodity

[2] NPC: national people's congress

speculation that is provoked and the association of many of the reformers with corruption undermined the position of Zhao Ziyang, de facto leader of the reform camp. The Tiananmen massacre led to his fall, and with it came a halt to transition until 1992. That year saw Deng Xiaoping himself take the lead in advocating transition. Following his spring tour, price reform was completed and a gradual drift towards enterprise reform began anew. This renewed emphasis on transition-rather than the consolidation of 1982-92 continued until Deng's death in 1997.

2.2.1 The get rich first policy

In the 1970's, Deng Xiaoping proclaimed, "Let some people get rich first." Now most Chinese folks cynically call the newly rich the "Rich First" and call themselves the "Rich Later," to kid that they themselves might get rich later according to Deng Xiaoping's proclamation. If they get rich soon, China will be the best country in the world.

Most Chinese people think they live much better than 20 years ago, so the reformation is good. But some think it's worse because, in "Mao's time," you all worked for the country or the public; you felt and were called "masters of the country," especially the working class. But now, suddenly, you must work for a person who used to be your fellow worker or someone who was no better than you except for luck. He becomes a big boss and gets rich and you become his worker and stay poor.

The original idea of Communist society was: all businesses and all properties belong to the public; society should be highly developed

materially and spiritually; its citizens should work their shares according to their abilities and get paid according to their needs. That would be the ideal world to live in if it could come true. Unfortunately, when Communist parties came to power (in the Soviet Union and China), instead of focusing on economic development they kept fighting “class struggle.” Meanwhile, since those who worked hard got paid about the same as those who worked less, there was no incentive to work hard. Moreover, some intellectuals were named “class enemies” and lost opportunities to contribute their knowledge; others had to use “half the heart” worrying whether class struggles would crush them. As a result of all that, the economy crashed, and the country plunged into poverty.

During his 1992 tour of south China, Deng Xiaoping urged us to be "more emancipated in our thoughts, more courageous in reform and opening up to the outside world, and quicker in our development steps and on no account to allow our opportunities to slip through our fingers". He also emphasized: "development is the cardinal principle and the key to solving all of China's problems." In this way, the focus was placed upon increasing the nation's aggregate wealth and overall strength and efficiency became the number one issue. On the other hand, remnants of egalitarianism from the era of the central planning system remained a major factor in restricting the increase of efficiency. In order to improve efficiency and increase aggregate wealth as quickly as possible, we have got to further our efforts to "smash egalitarianism; widen the income gap to a reasonable degree and to persist in encouraging some areas and some people to get rich sooner than others by

honest labor and by lawful means". This line captures perfectly the spirit of "giving priority to efficiency while taking fairness into account", which was put forward at the Third Plenary Session of the 14th Party Central Committee in light of the nation's actual conditions and development needs. It is only proper for economic theoreticians to expound upon and disseminate this distribution policy.

2.2.2 The open door policy of China

The open door policy is announced in “The Central committee of the Communist Party of China” held in December 1978, in Beijing, at which two important decisions were made .One was to open the door of China to the outside world and the other, to invigorate the national economy through reform. As it turned out, the meeting marked a new page in the annals of China. Since then, China has embarked on a gradual switch from the planned economy to what we now call the socialist market economy.

Reforms came to the rural areas first. The people's communes were dismantled, thus ending as system that had kept the farmers in an economic straitjacket for years. City reforms came somewhat later and not without difficulty. Still, Big strides have been made with achievement visible to every fair-minded person. For one thing, the old system under which people were paid without having to work hard has been abolished. For another, large amounts of foreign investment have been pouring in and joint ventures have been mushrooming, especially in the coastal areas, Special economic zones have been set up with Shenzhen, Zhuai, Shantou and Xiamen as the four

initials. Shenzhen was the first special economic zone in 1980 and it had become the focus of Beijing's efforts to demonstrate the efficacy of its new international economic policies. It was partly because of its proximity to Hong Kong, partly because of special assistance from the central government. Before 1980, Shenzhen was an undeveloped town of 20,000 inhabitants. It grew rapidly once it became a special economic zone. Its central location between Hong Kong and Guangzhou also made it an ideal place to locate industry, light industry, especially the production of arts and crafts, textiles, foot wears, clothing, medicines and building materials, were important to the city's economy. The number of manufacturing enterprises increased from 26 in 1980 to 500 in 1984, and personal income was said to average almost five times that of urban residents in China as a whole. Shenzhen also supplies food and water to Hong Kong, which made its position unable to be replaced by any other cities. Nowadays, Shenzhen has its population around 5 million. The unique geographical, political and economical advantages of Shenzhen made the city became a model of the Chinese government to develop the rest of China. Besides special economic zones, many coastal cities were also designated as opened areas such as Shanghai, Tianjin, Guangzhou and Nanjing. The idea of Deng was to let these coastal areas to have growth first and then the wealth effects would be infiltrated into the inland areas. The decision to open the Chinese coast to foreign investment was motivated partly by the success of Shenzhen -- one of the original four special economic zones.

Shanghai is the largest and is one of the most important economic

coastal cities in China which nowadays has population around 15 million. Shanghai was the first coastal city that open to the western world during the early 20th century. Shanghai is also an international stock exchange market that is competitive to one of the greatest financial center in the world -- Hong Kong. Some foreign banks were allowed to open their branches in Shanghai. Shanghai has the most highly skilled workers in China, and good transportation and communication networks. This beautiful city played an important role in Deng's Open Door Policy since when Deng visited there in the early 1990's, he decided to let this city to regain its "Dragon Head" position of the Chinese economy. After that, Shanghai's economy expanded more than 20% per year.

The Open Door Policy, which encouraged foreign trades and investments, had achieved the desired effect of stimulating China's economic growth during the past two decades. People's living standard was greatly improved, not only on basic essential material products, but also on leisure entertainment and hobbies. For instant, many karaoke’s were opened in China and the usage of personal computers and the internet were getting much popular from time to time. The Open Door Policy was the only way for China to overcome poverty, backwardness and ignorance caused by China's previous isolation.

Chapter 3. The Regional Inequality of China

In my thesis I will use some statistic formula of the regional economics. In order to measure the regional inequalities of China, Range Ratio, the Mcloone Index, CV, WCV, the Gini’s coefficient, Theil's T Statistic are used.

3.1 The measuring regional inequality

3.1.1 The Range Ratio

The Range Ratio is computed by dividing a value at one predetermined percentile by the value at lower predetermined percentile. In my thesis I will choose 95/5 ratio for the Federal Range Radio. The Range Ratio has such merits:

(a) Easy to understand

(b) Easy to calculate

(c) Not skewed by severe outliers

And the demerits of the Range Ratio are:

(a) Ignores all but two of the observations

(b) Does not weight observations

3.1.2 The McLoone Index

The McLoone Index is another example of a measure that compares one part of a distribution to another. However, the McLoone Index takes a much larger proportion of the data into account. It compares how much of a resource is concentrated in the bottom half of a distribution to the median amount. To compute the McLoone Index value, divide the sum of all of the observations at or below the median level by the product of the number of observations at or below the median level and the value of the median level. Values of the McLoone Index are bound below by zero - if the lower half of the distribution receives none of the resource - and above by one - if there are no observations below the median. The latter case would occur if the lowest value is shared by at least half of the observations. Unlike most inequality measures, a higher value for the McLoone Index describes a more equitable distribution.

The McLoone Index has such merits:

(a) Easy to understand

(b) Conveys comprehensive information about the bottom half

And the demerits of the Mcloone Index are:

(a) Ignores values above the median

(b) Relevance depends on the meaning of the median value

3.1.3 The coefficient of variation & the weighted coefficient of variation

The measuring techniques examined in the previous section have in common that they take into consideration only the extreme values and do not measure the dispersion of the observations as a whole. We distinguish three measures of total dispersion:

(a) the mean deviation;

(b) the standard deviation;

(c) the variance (the variance can be decomposed in to a 'within group and a 'between-groups' variance);

(d) the coefficient of variation (this coefficient can be decomposed in the same way as the variance into a within-set and a between-set variation).

To compare countries and periods, the coefficient of variation is the only adequate indication of dispersion. The coefficient of variation is defined as: $CV = 100\, s/\bar{x}$ in which s is the standard deviation and $\bar{x}$ the mean. The weighed CV is equal to:

$$\boldsymbol{WCV} = \frac{\sqrt{\sum_{i=1}^{n} (\boldsymbol{y_i} - \bar{\boldsymbol{y}})^2 \frac{\boldsymbol{P_i}}{\boldsymbol{n}}}}{\bar{\boldsymbol{y}}} \quad \text{and} \quad CV = \frac{s}{\bar{y}} = \frac{\sqrt{\frac{1}{n}\sum_{i=1}^{n} (y_i - \bar{y})^2}}{\bar{y}}$$

In which:

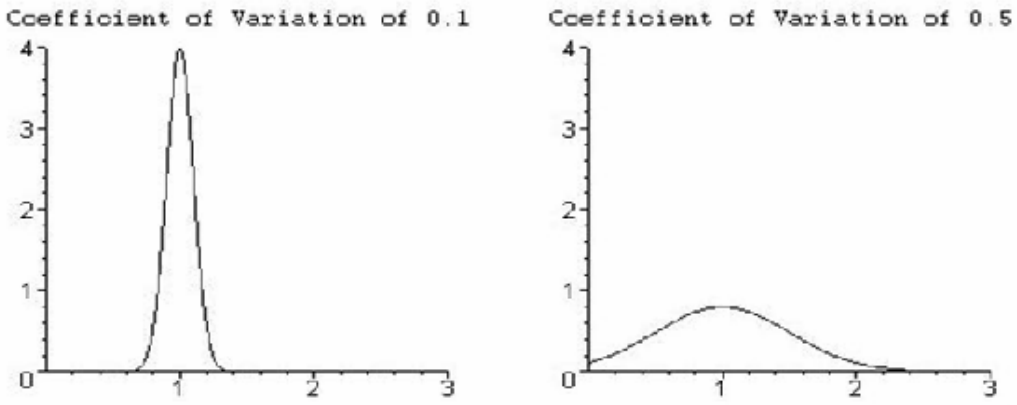
$\bar{y}$ = average national income per capita;

$\boldsymbol{y_i}$ = average income per capita in region i;

P_i =the population (share) of region i.

Why we used the CV? The flowing two distributions have the same mean, 1, but the standard deviation is much smaller in the distribution on the left, resulting in a low coefficient of variation.

Figure 3-1 The Coefficient of Variation



Used CV and WCV have such merits:

(a) fairly easy to understand

(b) if data is weighted, it is immune to outliers

(c) incorporates all data

(d) not skewed by inflation

And they also have the demerits as fallow:

(a) requires comprehensive individual level data

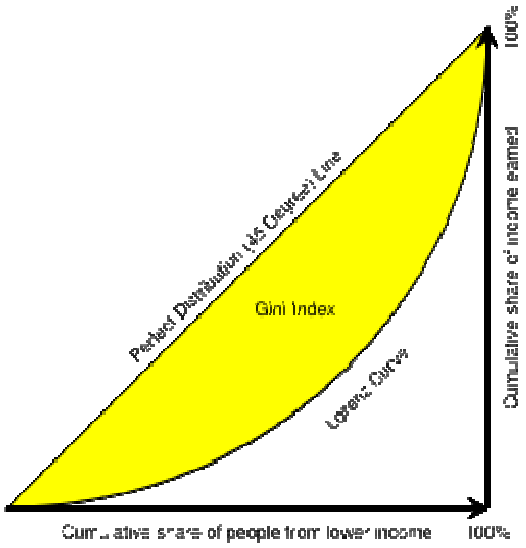
(b) no standard for an acceptable level of inequality

3.1.4 The Gini's Coefficient

The Gini's coefficient is a measure of inequality developed by the Italian statistician Corrado Gini's and published in his 1912 paper

‘Variabilità e mutabilità’. It is usually used to measure income inequality, but can be used to measure any form of uneven distribution. The Gini’s coefficient is a number between 0 and 1, where 0 corresponds with perfect equality and 1corresponds with perfect inequality. The Gini’s index is the Gini’s coefficient expressed in percentage form, and is equal to the Gini’s coefficient multiplied by 100.

Figure 3-2 Graphical representation of the Gini’s coefficient



The Gini’s coefficient is defined as a ratio of the areas on the Lorenz curve diagram. If the area between the line of perfect equality and Lorenz curve is A, and the area under the Lorenz curve is B, then the Gini’s coefficient is A/(A+B). Since A+B = 0.5, the Gini’s coefficient, G = A/ (0.5) = 2A = 1-2B. If the Lorenz curve is represented by the function Y = L(X), the value of B can be found with integration and:

$$G = 1 - 2\int_0^1 L(X)dX$$

In some cases, this equation can be applied to calculate the Gini's coefficient without direct reference to the Lorenz curve. For example:

For a population uniform on the values y_i, i = 1 to n, indexed in non-decreasing order $(y_i \le y_{i+1})$:

$$G = \frac{1}{n}\left(n+1-2\left(\frac{\sum_{i=1}^{n}(n+1-i)y_i}{\sum_{i=1}^{n}y_i}\right)\right)$$

For a discrete probability function f(y), where y_i, i = 1 to n, are the points with nonzero probabilities and which are indexed in increasing order $(y_i \le y_{i+1})$:

$$G = 1-\frac{\sum_{i=1}^{n} f(y_i)(S_{i-1}+S_i)}{S_n}$$

where:

$$S_i = \sum_{j=1}^{i} f(y_j)y_j \quad \text{and} \quad S_0 = 0$$

For a cumulative distribution function F(y) that is piecewise differentiable, has a mean μ, and is zero for all negative values of y:

$$G = 1-\frac{1}{\mu}\int_0^{\infty}(1-F(y))^2\,dy$$

Since the Gini's coefficient is half the relative mean difference, it can also be calculated using formulas for the relative mean difference.

For a random sample S consisting of values y_i, i = 1 to n, that are indexed in non-decreasing order $(y_i \le y_{i+1})$, the statistic:

$$G(S) = \frac{1}{n-1}\left(n+1-2\left(\frac{\sum_{i=1}^{n}(n+1-i)y_i}{\sum_{i=1}^{n} y_i} \right) \right)$$

is a consistent estimator of the population Gini's coefficient, but is not, in general, unbiased. Like the relative mean difference, there does not exist a sample statistic that is in general an unbiased estimator of the population Gini's coefficient. Confidence intervals for the population Gini's coefficient can be calculated using bootstrap techniques.

Sometimes the entire Lorenz curve is not known, and only values at certain intervals are given. In that case, the Gini's coefficient can be approximated by using various techniques for interpolating the missing values of the Lorenz curve. If (X_k, Y_k) are the known points on the Lorenz curve, with the X k indexed in increasing order $(X_{k-1} < X_k)$, so that:

X_k is the cumulated proportion of the population variable, for k = 0,...,n, with $X_0 = 0$, $X_n = 1$.

Y_k is the cumulated proportion of the income variable, for k = 0,...,n, with $Y_0 = 0$, $Y_n = 1$.

If the Lorenz curve is approximated on each interval as a line between consecutive points, then the area B can be approximated with trapezoids and:

$$G_1 = 1 - \sum_{k=1}^{n} (X_k - X_{k-1})(Y_k + Y_{k-1})$$

is the resulting approximation for G. More accurate results can be obtained using other methods to approximate the area B, such as approximating the

Lorenz curve with a quadratic function across pairs of intervals, or building an appropriately smooth approximation to the underlying distribution function that matches the known data. If the population means and boundary values for each interval are also known, these can also often be used to improve the accuracy of the approximation.

Gini's coefficient of concentration corresponds to twice the area enclosed between the diagonal of equi-distribution and the concentration curve. It varies, therefore, between 0 and 1, the former value indication absolute equality, the latter absolute equality, the latter absolute inequality. It is defined as:

$$G = \frac{1}{2}\sum_{i=1}^{n}\sum_{j=1}^{n} P_i P_j \left| \frac{Y_i}{P_i} - \frac{Y_j}{P_j} \right|$$

Where P and Y are, respectively, the shares of total population and of product in each region. If ten region are considered, there are 10*9 difference, $\left| \frac{Y_i}{P_i} - \frac{Y_j}{P_j} \right|$ each weighted by the corresponding $P_i P_j$.

Because it gives avertable weighting to different observations, Gini's coefficient constitutes a better methodological approach than previously mentioned ways to measure dispersion. However, the coefficient of variation can also be weighted. We draw attention to the fact that Gini's coefficient like any measure of dispersion, is influenced by the number of regions considered.

The Gini's coefficient has such merits:

(a) generally regarded as gold standard in economic work

(b) incorporates all data

(c) allows direct comparison between units with different size populations

(d) attractive intuitive interpretation

The Gini's coefficient has such demerits:

(a) requires comprehensive individual level data

(b) requires more sophisticated computations

3.1.5 Theil's T Statistic

H.Theil proposes to characterize disparities in regional products per inhabitant by the entropy of their distribution, i.e. by the measurement of the 'disorder' of the observed values.

$$I_T = \sum_{i=1}^{n} \frac{Y_i}{Y} \log \frac{Y_i/P_i}{Y/P}$$

In which Y_i/Y represents the share of each region in the total product of the regions, and $\frac{Y_i/P_i}{Y/P}$ the relation of the product per capita of each region to the product per inhabitant of the regions taken as a whole. It can vary between 0 and $\log P/P_i$. The value 0 corresponds to the case of perfect equality in regional products per head. The value $\log P/P_i$ corresponds to the case of maximum inequality in regional products per inhabitant, in which the whole of the product is concentrated in the region where the population is smallest.

Gini's coefficient of concentration and Theil's index are both weighted. But while the former is weighted by population, the latter is weighted by

product to conform more to the economic significance of the desired measurement.

Theil's index has, in addition, possibilities of aggregation into sub-assemblies (e.g. groups of regions) which make it particularly interesting from the point of view of analysis of regional disparities: total variation=variation of national average incomes per capita between the Chinese province + variations of regional average income per capita in the Chinese province.

$$I_T = \sum_{i=1}^{n} Y_i \log \frac{Y_i}{P_i} = \sum_{g=1}^{G} Y_g \log \frac{Y_g}{P_g} + \sum_{g=1}^{G} Y_g \left(\sum_{i \in S_g} \frac{Y_i}{Y_g} \log \frac{Y_i / Y_g}{P_i / P_g} \right)$$

where:

Y_i = part of province i in the Chinese product;

P_i = part of province i in the Chinese population;

Y_g = part of region g in Chinese product

P_g = part of region g in Chinese population

G = number of regions

S_g = number of provinces in region g ($i \in S_g$ i is one element of the group S_g)

N = number of province in China

Theil's T Statistic also has its own merits and demerits which the merits are:

(a) can effectively use group data

(b) allows the researcher to parse inequality into within group and

between group components

And the demerits are:

(a) no intuitive motivating picture

(b) can’t directly compare populations with different sizes or group structures

(c) comparatively mathematically complex

3.2 The analysis of regional inequality in China

3.2.1 Introduction of the region in China

Figure 3-3 The map of China

In my thesis I've divided China as three regions, which are the eastern region[3] (10 provinces), the middle region[4] (9 provinces) and the western region[5] (12 provinces).

[3] The eastern region includes Beijing, Tianjin, Hebei, Shanghai, Jiangsu, Zhejiang, Fujian. Shandong, Guangdong and Hainan.
[4] The middle region includes Heilongjiang, Jilin, Liaoning, Shanxi, Anhui, Jiangxi, Henan, Hunan and Hubei.
[5] The western region includes Guangxi, Chongqing, Sichuan, Guizhou Yunnan, Tibet, Shaanxi, Gansu,

3.2.2 The result of measuring inequalities

3.2.2.1 The result of the Range Ratio

I choose the 2nd average province income divided the 30th average province income.

Write as follow:

$$R = \frac{2nd}{30th}$$

I use the following number.

Table 3-1 The using number of range ratio from 1978~2005

1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Guang xi	Guang xi	Yun nan	Yun nan	Yun nan	Yun nan	Guang xi	Guang xi	Gui zhou	Guang xi
223.1	243.8	265.6	292.1	335.4	360.5	394.9	467.3	461.3	601.6
Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing
1249	1339	1538	1514	1657	1928	2245	2621	2771	3121
1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Guang xi	Guang xi	Chong qing	Chong qing	Gan su	Gan su	Gan su	Gan su	Tibet	Gan su
766.4	923.9	1022	1156	1373	1587	1899	2270	2706	3133
Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing
3866	4241	4612	5474	6435	7766	9636	11149	12829	14598
1998	1999	2000	2001	2002	2003	2004	2005		
Gan su	Gan su	Gan su	Gan su	Gan su	Gan su	Gan su	Gan su		
3453	3665	3846	4165	4479	5012	5952	7456		
Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Bei jing	Tian jin	Bei jing		

After calculate we can see in Table 3-11 the number of range ratio is up

Qinghai, Ningxia, Xinjiang and Mongolia.

and down from 1987-1986 at the beginning of the reform time and from 1987-2004 the number of range ratio did not wave so much. From2003~ 2005 the number of range ratio make a special increase just because the second personal income city changed.

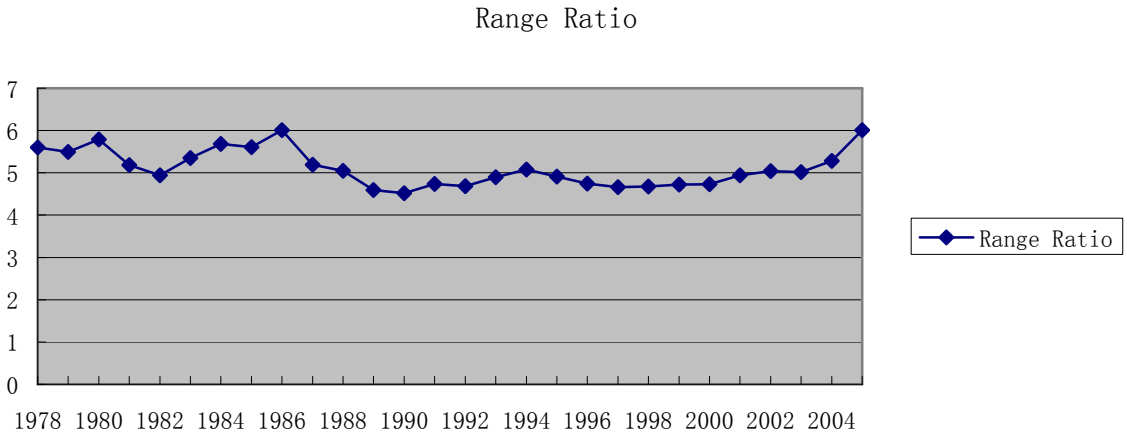
Table 3-2 The result of range ratio

1978	1979	1980	1981	1982	1983	1984
5. 597752	5. 491581	5. 791238	5. 182919	4. 940488	5. 347489	5. 684091
1985	1986	1987	1988	1989	1990	1991
5. 608359	6. 007518	5. 188702	5. 044893	4. 591074	4. 5141	4. 734831
1992	1993	1994	1995	1996	1997	1998
4. 685278	4. 892593	5. 072833	4. 91182	4. 740683	4. 659691	4. 676373
1999	2000	2001	2002	2003	2004	2005
4. 719299	4. 726591	4. 939068	5. 039951	5. 018396	5. 281914	6. 005487

Source: calculated based on the range ratio formula

For more clearly let's see the curve bellow:

Figure 3-4 Range Ratio



3.2.2.2 The result of The Mcloone Index

As the meaning of Mcloone index the formula of Mcloone index of China can be writer as follow:

$$M = \frac{\sum_{i=16}^{31} a_i}{a_{16} \times 16}$$

Which M means the value of Mcloone index a means average income of a province. Just use the follow provinces.

Table 3-3a The using number of Mcloone index

1978	1979	1980	1981	1982	1983	1984
Guizhou	Guizhou	Guizhou	Guizhou	Guizhou	Guizhou	Guizhou
Guangxi	Guangxi	Yunnan	Yunnan	Yunnan	Yunnan	Guangxi
Yunnan	Yunnan	Guangxi	Guangxi	Henan	Guangxi	Yunnan
Henan	Henan	Anhui	Sichuan	Guangxi	Chongqing	Chongqing
Anhui	Anhui	Henan	Chongqing	Chongqing	Shaanxi	Henan
Chongqing	Chongqing	Chongqing	Henan	Anhui	Sichuan	Sichuan
Sichuan	Sichuan	Sichuan	Anhui	Sichuan	Jiangxi	Jiangxi
Fujian	Fujian	Shaanxi	Shaanxi	Shaanxi	Anhui	Shaanxi
Jiangxi	Jiangxi	Jiangxi	Gansu	Gansu	Henan	Gansu
Hunan	Hainan	Fujian	Jiangxi	Jiangxi	Gansu	Hunan
Shaanxi	Shaanxi	Hainan	Hunan	Hunan	Hunan	Anhui
Hainan	Hunan	Hunan	Hainan	Fujian	Fujian	Fujian
Shandong	Mongolia	Mongolia	Mongolia	Ningxia	Ningxia	Hebei
Xinjiang	Shandong	Gansu	Fujian	Hebei	Hebei	Ningxia
Mongolia	Gansu	Shandong	Hebei	Mongolia	Tibet	Hainan
Zhejiang	Xinjiang	Xinjiang	Ningxia	Xinjiang	Hainan	Mongolia
1985	1986	1987	1988	1989	1990	1991
Guizhou	Sichuan	Guizhou	Guizhou	Guizhou	Guizhou	Guizhou
Guangxi	Guizhou	Guangxi	Guangxi	Guangxi	Chongqing	Chongqing
Yunnan	Guangxi	Yunnan	Chongqing	Sichuan	Guangxi	Anhui
Chongqing	Yunnan	Chongqing	Yunnan	Chongqing	Gansu	Gansu
Sichuan	Chongqing	Sichuan	Sichuan	Yunnan	Henan	Henan
Henan	Henan	Jiangxi	Jiangxi	Gansu	Jiangxi	Guangxi
Jiangxi	Jiangxi	Henan	Gansu	Henan	Sichuan	Jiangxi
Shaanxi	Gansu	Gansu	Henan	Jiangxi	Anhui	Sichuan
Gansu	Shaanxi	Shaanxi	Tibet	Tibet	Yunnan	Hunan
Hunan	Hunan	Hunan	Hunan	Hunan	Hunan	Yunnan
Anhui	Anhui	Anhui	Shaanxi	Shaanxi	Shaanxi	Tibet
Hebei	Hebei	Tibet	Anhui	Anhui	Tibet	Shaanxi
Fujian	Fujian	Ningxia	Shanxi	Ningxia	Ningxia	Ningxia
Hainan	Hainan	Hebei	Ningxia	Shanxi	Hebei	Shanxi
Ningxia	Ningxia	Hainan	Hubei	Hubei	Mongolia	Mongolia
Hubei	Tibet	Shanxi	Hebei	Qinghai	Shanxi	Qinghai

Table 3-3b The using number of Mcloone index

1992	1993	1994	1995	1996	1997	1998
Guizhou	Guizhou	Guizhou	Guizhou	Guizhou	Guizhou	Guizhou
Gansu	Gansu	Gansu	Gansu	Tibet	Gansu	Gansu
Anhui	Tibet	Tibet	Tibet	Gansu	Tibet	Tibet
Chongqing	Jiangxi	Shaanxi	Shaanxi	Shaanxi	Shaanxi	Shaanxi
Henan	Anhui	Jiangxi	Jiangxi	Jiangxi	Jiangxi	Guangxi
Jiangxi	Sichuan	Henan	Yunnan	Sichuan	Guangxi	Jiangxi
Sichuan	Chongqing	Sichuan	Sichuan	Yunnan	Ningxia	Ningxia
Guangxi	Henan	Yunnan	Guangxi	Guangxi	Yunnan	Sichuan
Tibet	Shaanxi	Chongqing	Henan	Ningxia	Sichuan	Yunnan
Shaanxi	Guangxi	Anhui	Ningxia	Qinghai	Qinghai	Qinghai
Hunan	Yunnan	Hunan	Shanxi	Chongqing	Shanxi	Anhui
Yunnan	Hunan	Shanxi	Chongqing	Anhui	Henan	Chongqing
Ningxia	Ningxia	Ningxia	Hunan	Shanxi	Chongqing	Henan
Shanxi	Shanxi	Guangxi	Anhui	Henan	Anhui	Shanxi
Qinghai	Qinghai	Qinghai	Qinghai	Hunan	Hunan	Hunan
Mongolia	Mongolia	Mongolia	Mongolia	Mongolia	Mongolia	Mongolia
1999	2000	2001	2002	2003	2004	2005
Guizhou	Guizhou	Guizhou	Guizhou	Guizhou	Guizhou	Guizhou
Gansu	Gansu	Gansu	Gansu	Gansu	Gansu	Gansu
Shaanxi	Guangxi	Guangxi	Guangxi	Guangxi	Yunnan	Yunnan
Guangxi	Shaanxi	Yunnan	Yunnan	Yunnan	Guangxi	Guangxi
Tibet	Yunnan	Shaanxi	Shaanxi	Sichuan	Sichuan	Anhui
Jiangxi	Tibet	Jiangxi	Sichuan	Anhui	Anhui	Sichuan
Yunnan	Sichuan	Sichuan	Ningxia	Shaanxi	Shaanxi	Tibet
Sichuan	Ningxia	Ningxia	Anhui	Ningxia	Ningxia	Jiangxi
Ningxia	Jiangxi	Anhui	Jiangxi	Jiangxi	Jiangxi	Shaanxi
Qinghai	Anhui	Shanxi	Shanxi	Hunan	Hunan	Qinghai
Shanxi	Shanxi	Tibet	Tibet	Tibet	Tibet	Ningxia
Anhui	Qinghai	Chongqing	Chongqing	Chongqing	Chongqing	Hunan
Chongqing	Chongqing	Qinghai	Henan	Henan	Qinghai	Hainan
Henan	Henan	Henan	Qinghai	Qinghai	Henan	Chongqing
Hunan	Hunan	Hunan	Hunan	Shanxi	Shanxi	Henan
Mongolia	Mongolia	Mongolia	Mongolia	Hainan	Hainan	Hubei

As calculate the value of McLoone index is:

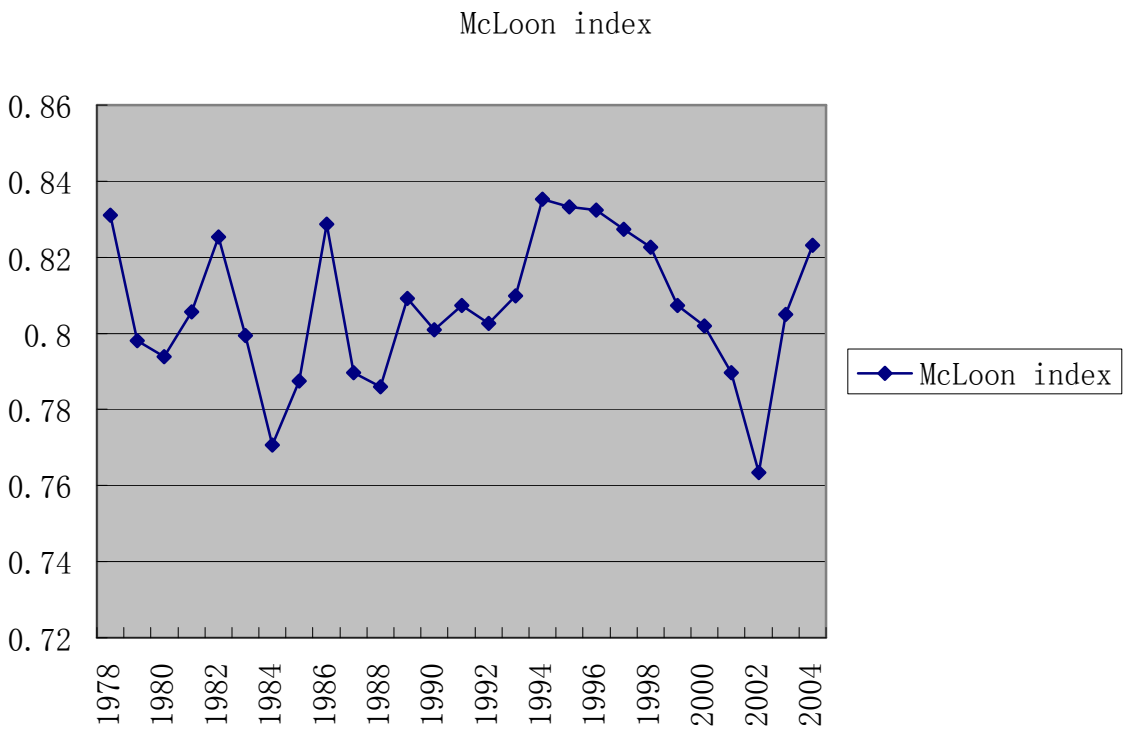
Table 3-4 value of Mcloone index

1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
0.8187	0.8311	0.7982	0.7938	0.8057	0.8253	0.7995	0.7707	0.7874	0.8287
1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
0.7896	0.786	0.8092	0.8009	0.8074	0.8026	0.8099	0.8353	0.8332	0.8324
1998	1999	2000	2001	2002	2003	2004	2005		
0.8274	0.8226	0.8073	0.8019	0.7897	0.7634	0.8049	0.8231		

Source: calculated based on the Mcloone index formula

And the McLoone index is:

Figure 3-5 Mcloone index



We can see from up on figure 4-3 the Mcloone index is up and down from 1987~1990 and we can say that at the first 13 years of the reform the below 16 provinces' income growth is not as the same.

From 1991~1999 the Mcloone index was more smoothness like beeline that can be means at these years the grows rate of last 16 province is this very same. And at the 1995 the number of Mcloone is be the highest as the meaning of McLoone index the year 1995 is more equity than the other years.

From 2000-2005 the value of Mcloone index have a widely change. As the meaning of the Mcloone index the grow rate of the last 16 province had a big gap during that time.

3.2.2.3 The result of CV and WCV

In probability theory and statistics, the coefficient of variation (CV) is a measure of dispersion of a probability distribution. The coefficient of variation is also common in applied probability fields such as renewal theory, queuing theory, and reliability theory. In these fields, the exponential distribution is often more important than the normal distribution. The standard deviation of an exponential distribution is equal to its mean, so its coefficient of variation is equal to 1. Distributions with CV < 1 are considered low-variance, while those with CV > 1 are considered high-variance

Based on the CV and WCV formula the CV and WCV can be show as follow:

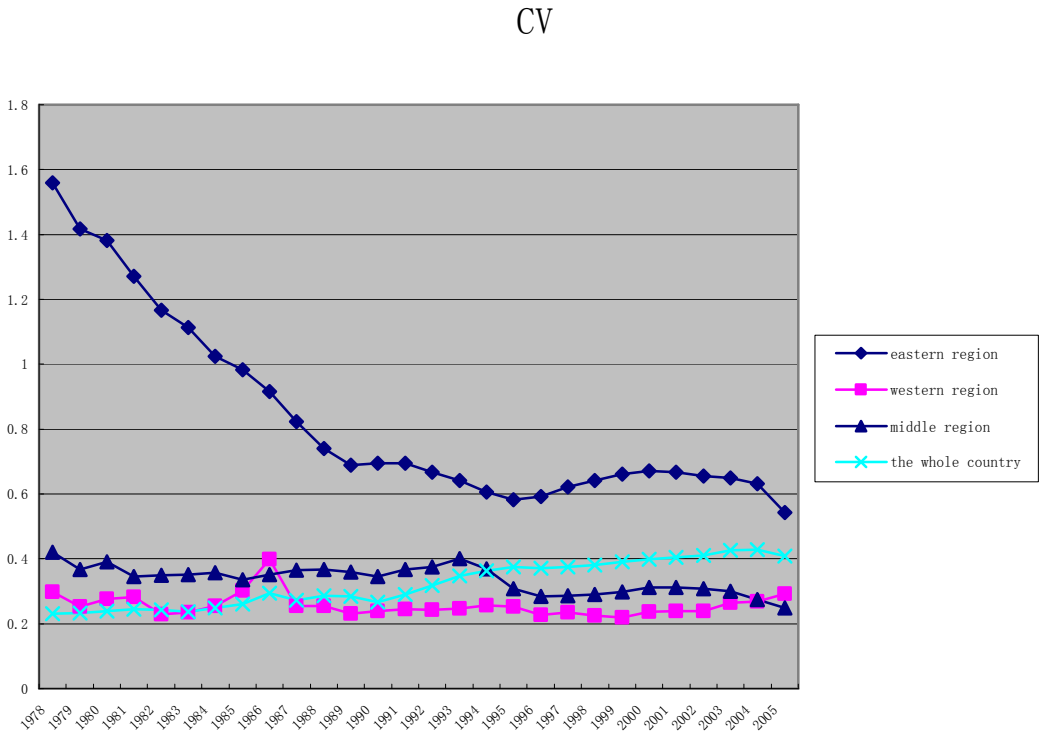
Table 3-5 The CV and WCV from 1978~2005

Year	CV of the eastern region	WCV of the eastern region	CV of the middle region	WCV of the middle region	CV of the western region	WCV of the western region	CV of the whole country	WCV of the whole country
1978	1.55957	0.28657	0.41977	0.1346	0.29896	0.05615	0.23041	0.12929
1979	1.41707	0.2624	0.36725	0.1192	0.25193	0.05106	0.23209	0.12989
1980	1.38242	0.25503	0.39175	0.125	0.27654	0.05081	0.23916	0.1338
1981	1.27034	0.23497	0.3463	0.1109	0.28242	0.04666	0.24473	0.13702
1982	1.166	0.21601	0.34841	0.1121	0.22892	0.04321	0.24337	0.13674
1983	1.11382	0.20535	0.35066	0.1109	0.2355	0.04975	0.2368	0.13255
1984	1.02514	0.18861	0.35705	0.114	0.2542	0.05068	0.24897	0.13945
1985	0.98315	0.18207	0.33458	0.1069	0.30141	0.05896	0.26104	0.14659
1986	0.91643	0.17129	0.3509	0.112	0.39774	0.09249	0.29458	0.16441
1987	0.82269	0.15544	0.3651	0.1147	0.25547	0.05667	0.27317	0.15337
1988	0.73943	0.1413	0.36654	0.1147	0.25511	0.05726	0.28654	0.16163
1989	0.6887	0.13191	0.36019	0.1141	0.23138	0.05164	0.28461	0.16069
1990	0.69432	0.13131	0.34618	0.1096	0.2383	0.05373	0.26613	0.15074
1991	0.69497	0.13156	0.36698	0.1159	0.24557	0.05737	0.28944	0.16488
1992	0.66807	0.12961	0.37535	0.118	0.2435	0.05763	0.31739	0.18095
1993	0.64204	0.12844	0.39982	0.1251	0.24594	0.05849	0.34667	0.19764
1994	0.60501	0.12149	0.36959	0.1146	0.25658	0.06192	0.36396	0.20765
1995	0.58271	0.1169	0.30714	0.0947	0.25251	0.06236	0.3747	0.21381
1996	0.59213	0.11575	0.2851	0.0879	0.2268	0.05783	0.3707	0.21126
1997	0.62194	0.11956	0.28684	0.0889	0.23446	0.06048	0.37466	0.21329
1998	0.64148	0.12254	0.29105	0.0903	0.22556	0.05992	0.38084	0.21697
1999	0.66084	0.12525	0.29876	0.0924	0.21874	0.05827	0.39171	0.22334
2000	0.67163	0.12631	0.31231	0.0964	0.23657	0.0622	0.39816	0.22722
2001	0.66745	0.12565	0.31277	0.0963	0.23864	0.06274	0.40425	0.2309
2002	0.65432	0.12387	0.30785	0.0948	0.23961	0.06327	0.41067	0.23487
2003	0.64909	0.12304	0.30001	0.0925	0.26371	0.06917	0.42607	0.24416
2004	0.63188	0.11871	0.27478	0.0845	0.2675	0.07097	0.42838	0.24557
2005	0.54303	0.11053	0.24947	0.0777	0.29291	0.07935	0.40818	0.23649

Source: calculated based on the CV and WCV formula

And for easy to see I made the following curve:

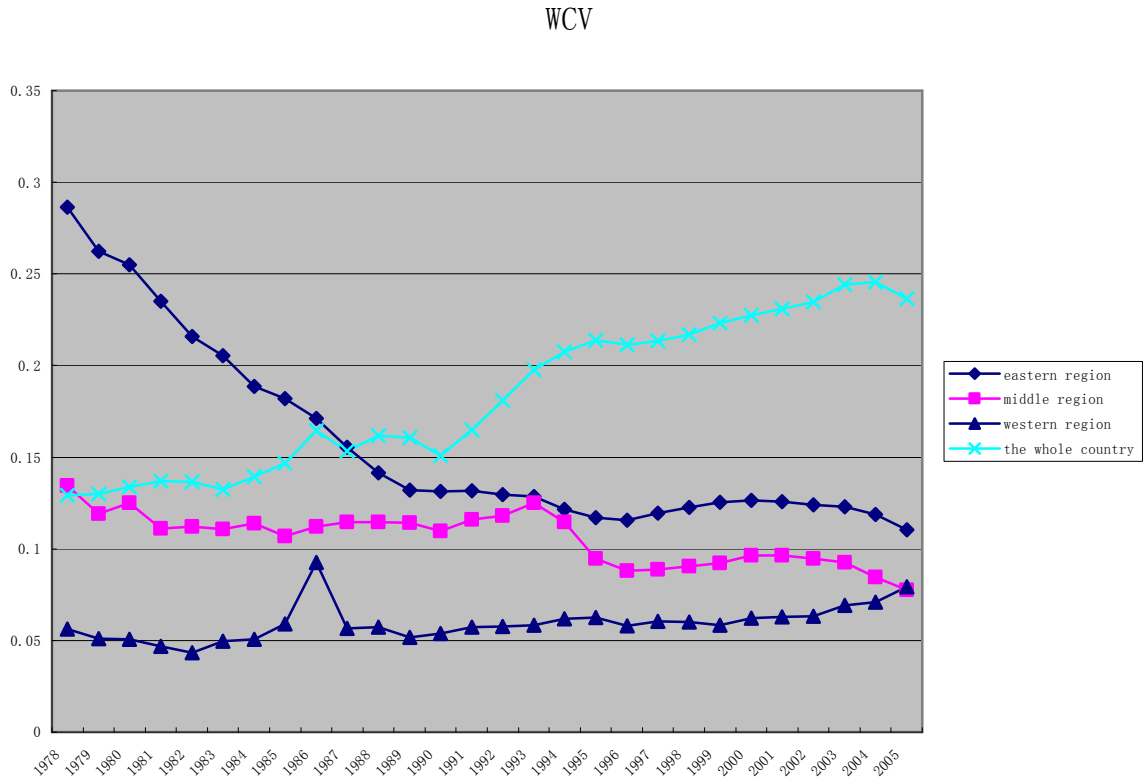
Figure 3-6 The CV from 1978~2005



See the figure 4-4 and figure 4-5 the CV and WCV form 1987~2005 the value of eastern region is getting down every year it means the standard deviation is getting down from 1987~2005 that means the income gap of the eastern area is getting short. See the WCV of the nation that shows the income gap of country is getting big from 1987~2005.

The CV and WCV figure shows in the region the income gap had getting short but the income gap of the whole country is getting big.

Figure 3-7 The WCV from 1978~2005



3.2.2.4 The result of Gini's coefficient

The Gini's coefficient is a very powerful tool but its validity depends directly on the quality of the statistical data used to calculate it. Unfortunately, there are no international norms in this matter. That means that the Gini's coefficient can be manipulated to a certain extent by left wing analysts who could seek to decry extreme inequalities or by conservative right-wingers who might wish to demonstrate that inequality is at a minimum. Care should therefore be taken to make sure of the objectivity of

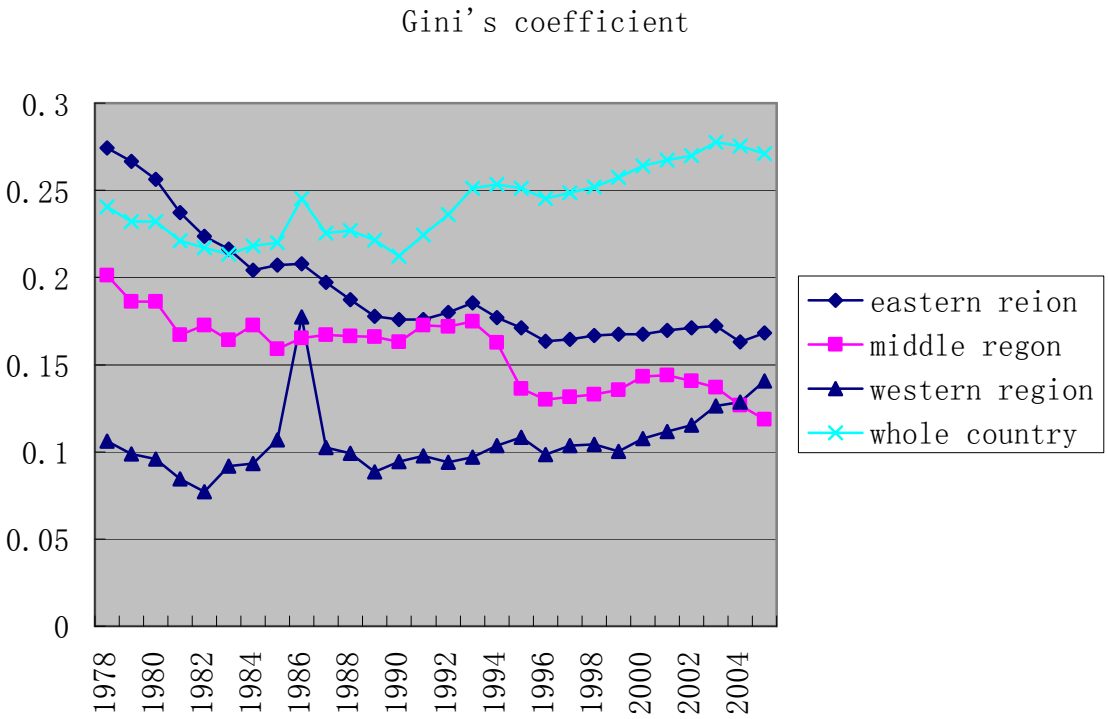
the source of each Gini before drawing hasty conclusions.

Table 3-6 Gini's coefficient of nation and region

	Gini's coefficient of the eastern region	Gini's coefficient of the middle region	Gini's coefficient of the western region	Gini's coefficient of the hole country
1978	0.274229	0.201369	0.106146	0.240363
1979	0.266637	0.186004	0.098595	0.232004
1980	0.25645	0.186299	0.09587	0.231978
1981	0.237098	0.167066	0.084352	0.220919
1982	0.223473	0.172519	0.076976	0.217076
1983	0.216456	0.164175	0.091809	0.213309
1984	0.204085	0.172504	0.093361	0.21801
1985	0.207219	0.159055	0.10697	0.219972
1986	0.207937	0.165318	0.177484	0.245182
1987	0.197346	0.167141	0.102334	0.225618
1988	0.187318	0.166171	0.099158	0.227009
1989	0.177895	0.165793	0.088611	0.221408
1990	0.176068	0.162908	0.094236	0.212175
1991	0.175945	0.172661	0.097637	0.224369
1992	0.17977	0.171911	0.094149	0.236155
1993	0.185531	0.174648	0.097082	0.251287
1994	0.176941	0.162547	0.103546	0.253463
1995	0.171027	0.136391	0.108169	0.251225
1996	0.163497	0.129831	0.098324	0.245315
1997	0.164348	0.131418	0.103724	0.248544
1998	0.166525	0.133035	0.104171	0.252057
1999	0.16743	0.135409	0.100385	0.257527
2000	0.167445	0.143278	0.107651	0.263846
2001	0.169705	0.143985	0.111539	0.267255
2002	0.171021	0.140466	0.115121	0.269949
2003	0.172212	0.137082	0.126356	0.277741
2004	0.162919	0.126777	0.128691	0.275569
2005	0.16804	0.118762	0.140522	0.271043

Source: calculated based on the Gini's coefficient formula

Figure 3-8 The Gini's coefficient



After we studied on the Gini's coefficient we can see the value of nation's Gini is grows from 0.24 to 0.27. That's mean the unbalance of the wealth is getting big. Just like the result of CV and WCV part.

3.2.2.5 The result of Theil's index

We can see the follow Theil's index that the value of Theil's index is from 1990 the value of Theil's index is getting bigger until 2003 that means the region inequality is getting larger and larger.

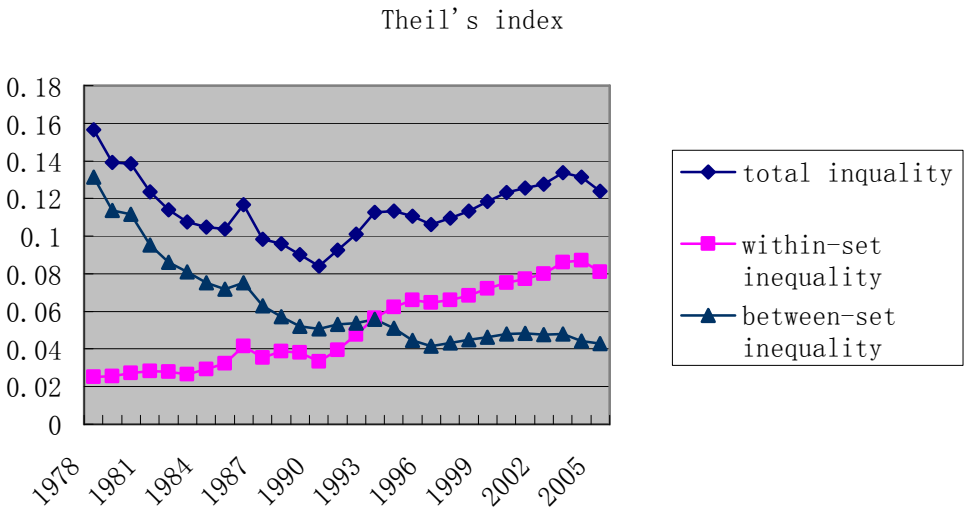
See the result of Theil's index as follow:

Table 3-7 Result of Theil's index

	Total inquality	between-set inequality	within-set inequality
1978	0.156388307	0.131286616	0.025101691
1979	0.139165541	0.113668547	0.025496993
1980	0.138525632	0.111451204	0.027074428
1981	0.123593967	0.095225286	0.028368681
1982	0.114032421	0.086030793	0.028001628
1983	0.107596278	0.081043994	0.026552284
1984	0.104684257	0.075335905	0.029348351
1985	0.103932783	0.071713214	0.032219568
1986	0.116855773	0.075349507	0.041506266
1987	0.098264578	0.062938038	0.03532654
1988	0.095867559	0.057144221	0.038723338
1989	0.090319422	0.052172096	0.038147326
1990	0.08405351	0.050622969	0.033430542
1991	0.092598075	0.053071904	0.039526171
1992	0.101073404	0.053603031	0.047470373
1993	0.112500358	0.055924798	0.05657556
1994	0.113293179	0.051005478	0.0622877
1995	0.110493762	0.044451825	0.066041936
1996	0.106206741	0.041533196	0.064673546
1997	0.10942991	0.043335825	0.066094085
1998	0.113198631	0.044914472	0.068284159
1999	0.118451943	0.046173756	0.072278187
2000	0.123099883	0.047994667	0.075105216
2001	0.125625034	0.048235623	0.077389411
2002	0.127522703	0.047638605	0.079884098
2003	0.133844269	0.047902819	0.08594145
2004	0.131258157	0.044312243	0.086945914
2005	0.123816637	0.042852659	0.080963978

Source: calculated based on the Theil's index formula

Figure 3-9 Theil's index



As considered the result of the measurement above. All the result is tell us the regional inequality in China is getting big. And we can also see from Theil's index during 2003-2005 the figure of Theil's index tell us during that year the income gap of province is getting shorter. In Deng's get rich first policy he tell us the first rich person will take the around people getting rich. And the results of Thile's index tell us the thought of Deng Xiaoping is coming true.

3.2.3 Summary of main finding from analysis

All the results of the measurement I have used are shows the regional inequality of 2005 is getting bigger than that of 1978. The result of range ratio tells us that the gap of average income between the 2nd higher region and the 30th higher region is getting larger. The Mcloone index shows the

average income of the behind 16 cities is getting closer. We could happily see from the result of CV WCV Gini’s coefficient and Theil’s index that the regional inequality from 2003~2005 is getting reduce as the western development policy being forward in 1999.

Chapter 4. The cause of inequality in China

The cause of regional inequality is very clear. From 1978 the Chinese government has changed its policies from balance to unbalance polices under the Deng Xiaoping's guidance. These policies has bring a lot of matters such as are the degrees and trends of regional inequality natural and healthy consequences of successful rapid development? Or are they a measure of inadequate government policies? Or was the initial priority given to coastal development justified by its natural advantages for global transport and communication?

One important property of the neoclassical growth model is its prediction of convergence-poor nations or regions tend to catch up with the rich ones in terms of the level of per capita product or income. Contrary to international experience, regional inequality in China has risen in the past two decades, a somewhat puzzling phenomenon as market-oriented reforms should facilitate resource flows that tend to equalize factor returns across regions.

With the 1982 constitution a new era began, since the Constitution developed substantial powers to the provinces, which became the driving force in China's economic and political transition. The provinces are now free to set price levels, within the framework of a system of local public

markets; the regional minimum wage; and regional investment and customs tariffs, as part of their new trade-related powers. In the course of the reforms, provinces were given more and more authority to approve foreign direct investment in certain industrial sectors without the central government's prior consent. In the early 1990s, they embarked upon a vast programmer of restructuring and privatization of the local public sector. Competition law is also being formulated at the regional level.

Local governance was unquestionably improved as well. The Party's central apparatus was scaled back, and while appointments of local leaders still require the center's prior consent, those leaders act ever more independently of Beijing. The first direct election of municipal authorities took place in 1998. At that time, the Carter Foundation of Atlanta contributed to the installation of pilot computer systems to tally votes in the villages in which elections were held.

Decentralization also involved a strategy of positive discrimination in favor of the southern coastal provinces. This was the goal of the so-called "open door policy" deployed in the 1980s with the creation of "Special Economic Zone". These zones, enjoying preferential tax treatment and provided in the 1980s and 1990s with quality infrastructure, were to serve as laboratories for Chinese reforms. They were also to be the starting point for an inward drive to the inland provinces, thanks to FDI-related technology transfers. Foreign direct investment flows in these zones increased 30-fold between 1980 and 1995. As is the case for similar areas set up in the OECD[6]

[6] Organization for Economic Co-operation and Development

countries, their attractiveness to foreign direct investment is attributable less to the start-up benefits they offer than to their geographic location, the quality of their labor force and infrastructure, and their relative judicial security. Taking advantage of rising costs in Hong Kong, China and Chinese Taipei, these SEZs were able to set up local capital markets, including venture capital markets. Stock exchanges were set up by Liaoning province in the 1990s, has new business incubators that have spawned start-ups in the forefront of technological progress.[7]

The economic performance of these zones is remarkable. The vitality of foreign trade and FDI-related technology transfers have generated a considerable rise in productivity, inducing a growth rate far in excess of the national average. Shenzhen, for example, experienced real growth of 35.5 pre cent per annum between 1985 and 1995, while the growth rate for China as a whole was 10 per cent. The extent, to which this growth is propagated to neighboring provinces, although perceptible, remains limited.

In as early as the early 1980s, Deng Xiaoping proposed the idea of two stages of regional development, that is, the coastal provinces were to make use of their location advantage to develop first, and they could then help the development of the interior provinces. During his southern tour in 1992, Deng further proposed that China should move from the first stage to the second, that is, shift the focus of reform and development from the coast to the interior, by the end of the 20th century. The shift of focus of reform and development from the cost to the western region was, therefore, a well-planned move that had been under deliberation for more than a decade.

[7] See OECD China in the world Economy 2003

When Deng Xiaoping proposed reorienting development to the interior, his main concern was to “resolve the problem of widening disparities between coastal and interior regions.” Since then, however, other concerns have developed and further motivated the current westward drive, such as the separatist movements in minority nationalities that threaten national unity and security, the sluggish domestic demand that became worse during the Asian financial crisis, and the deterioration of the ecological environment that caused devastating disasters along the Yangtze River and the Yellow River in recent years. China’s current drive for developing its western region has, therefore, been initiated and promoted to achieve multiple goals.

An economy has found a successful formula for sustained rapid growth generating well-paid employment expansion in modern centers located at transport and communication hubs, then regional inequalities between traditional farming areas and such hubs play an essential role in raising labor productivity by encouraging voluntary movement of qualified labor. An important corollary is that such an economy must at the same time have successfully financed and accomplished a range of public investments complementing the inequality-born incentive to migrate.

This latter scenario, of significant regional inequality matched by rapid job creation and speedy expansion of complementary public investments, describes Chinese situation in recent decades. GDP growth has averaged nearly 10 percent in real terms since 1985. This output is disproportionately concentrated in coastal regions, where industrial value added is also a significantly larger share of output. Similarly, the rapid growth in both rural

incomes and consumption levels in all regions of China supports the hypothesis that sustained growth in rural well-being has been transmitted nationwide.

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Chapter 5. The counteract policies for inequality of China

One of the most vital complementary factors enhancing a positive interpretation of China's regional inequalities is the Chinese success in sustained financing for infrastructure and other critical public investments. The expansion of limited access highways, ports, airports, mass transit systems, urban water and sewer, and other physical public investments has been extraordinarily rapid since the 1980s, made possible by Chinese well-functioning financial system-which is particularly well suited to the financial requirements of an economic transition in China. China has successfully operating dual-track financial sector that introduces reforms in its severely immature market-based financial institutions while simultaneously improving its large-scale directed-credit system allocating major portions of bank and postal savings to public investments such as infrastructure[8].

Other public investments similarly support productivity-enhancing labor-force restructuring-most importantly, education. Compulsory 9-grades of education for all children, rural and urban, boy and girl, has been implemented nationwide since the 1990s. In another dimension, household registration reforms are dismantling the residency barriers facing rural

[8] See Keidel 2007a

persons moving to towns. In many cities these reforms have allowed rural residents with an urban job not only to shift their administrative registration but also to bring their families to cities with them. Previously, urban schooling was not available for children of rural migrants.

The fact that incomes and consumption are increasing rapidly in all regions implies that some equilibrating forces are at work eroding disparities as they appear. These take the form of investment flows within an to poor regions as well as movements of labor out of poor regions to new jobs in better-off locations. At the same time, to the degree that divergence continues, growth and job creation in coastal regions are still increasing at rates too fast for migration and countervailing investments to eliminate differences. If anything, this state of affairs indicates that regional inequalities may not be high enough to meet the needs of labor-force restructuring.

Indeed, this issue of how attractive coastal jobs are to interior workers touches on the controversy about whether Chinese surplus rural labor supply will be 'drying up' sometime soon[9]. Reports of shortages of migrant labor in southern China have appeared in western mass media[10]. The implication is that the impact of regional inequality patterns and trends is that wages will have to rise in costal regions. Hence, it is not that diverging regional disparities are continuing to underpin low-cost Chinese manufacturing. Instead, the rapid pace of improvements in rural household circumstances in interior regions, despite a mile degree of continuing divergence, is forcing wage and cost increases on the coast.

[9] See, Cai 2007
[10] See, inter alia, Barboza 2006

Finally, it is also important to note that timely government policy intervention appears to have reversed what looked like serious divergence between the western region and the rest of the economy in the early 1990s. And the Chinese government's policy of western regional is called 'Go west and constructer west' its plan in the last 1990s and carry out in 1999. We can clearly see from CV WCV Gini's coefficient and Theil's index that show the inequality gap between Chinese regions have became shortly. After Deng Xiaoping's reform, his policy has made a big change of China and also taken great impact of the following time.

After Deng Xiaoping's time the policy of open door and the get rich first still affect the following leaders.

During Jiang Zemin term, they take a development policy of western China. In 2000 China started the "Develop the West" campaign. The government offered preferential policies to the western region in terms of capital input, investment environment, international and external opening-up, development of science and education, and human resources, thus making western China a land of great development. In the five years between 2000 and 2004, 60 key projects were started in western China, involving an investment of over 850 billion yuan.

The western region includes nine provinces and autonomous regions, namely, Gansu, Guizhou, Ningxia, Qinghai, Shaanxi, Sichuan, Tibet, Xinjiang and Yunnan, in addition to Chongqing Municipality, accounting for two thirds of the nation's total area and 22.8 percent of its population. Western China is rich in minerals, energy (including hydropower), tourist

and land resources. Viewed as a whole, eastern China on the lower reaches of the Yangtze River has long coastal lines, totaling 14,000 km; and the western part of the upper reaches of the Yangtze River, bordered by more than 10 countries, has 3,500 km of land frontiers. Hence it is believed that western China will become the next golden area for opening-up.

During the development of western China the government also continue the policy of Deng’s get rich first they still make some part of city rich first and then the rich city can make other around city getting in rich.

Although, the Wen Jiabao Hu Jintao leadership has since 2002 been working on a policy renewal in order to tackle the many negative results of China's fast economic development, including growing social and regional income disparities, environmental degradation and Party and government corruption.

The "preliminary stage" theory is based on the idea that China remains a country whose productive forces are underdeveloped and the primary aim of reform should therefore be to unleash these forces. This should be the central pillar of economic construction, and while social justice is a further aim, this needs to be predicated on unleashing productive forces and economic development.

These ideas are summarized in Deng's comment, "Let some people get rich first, so the rest of people can catch up later" and were also encapsulated in the "three represents" theory of the 1990s. they also related these ideas to Deng's famous southern tour of 1992 and to the subsequent pledge that "we must unswervingly put economic construction at the centre of CCP policy."

But today’s Hu Jintao’s government rolled out one impressive slogan after another: “Put people first,” “Run the country according to law,” “Render the media closer to the people,” and “Make government transparent.”

Since 1978, when its market reforms began, China has clocked an average annual growth rate of 8.9 percent--the longest and most sustained growth of any country in modern history and one that has propelled it ahead of Britain to become, this year, the fourth-largest economy in the world.

But as the Deng’s policy is an inequality, the Deng Xiaoping’s economic reforms have designated the city as the center of the regional economy and an agent of diffusion of economic growth. The pace of urban development during the reform era has corresponded to rapid growth of the Chinese economy, and the rural area is growth slowly than the urban area.

Also the special economic zones make the coastal development speed faster than the inner area because of the open cities are easily to handle foreign business directly, and to retain a large proportion of the foreign earnings involved. In addition to the policy privilege enjoyed by the coastal regions these regions also enjoy massive direct central and foreign fund allocations-much more than the inland regions.

These things have caught the inequality between the eastern and the western area.

Chapter 6. Conclusion

After Deng Xiaoping's reform in 1978, the regional inequality has grown bigger and bigger from 1978 to 2003 and between the year of 2004 and 2005, the regional inequality kept getting down after the implementing the western development policy which brought forward in 1999. The western development policy is a great policy which made the western region's economy growth quickly very much. Except that, I will take another suggestions to the government to decrease Chinese regional inequality.

Firstly, the government would better let some high-tech industry and timely product move to the western area. The high-tech industries have the high extra-value. It is suit for the middle and western regions. Because this two regions have the high cost of the transportation, and the transportation costs are the most thoroughly analyzed location factor. Seeing the map of China, the east region is near by the sea. It is good for the export industry to set factories in eastern region because it will be more convenience in shipping arrangement than located it in inner areas. Compared with above the two kinds of products always transport by the airline. They don't request the place if it near the ocean or not.

Secondly, let the underdeveloped region improve the construction of infrastructures. The construction of infrastructures such as setting some new school and the construction of the railway station, the airport and the highway, will increase the affinity of the region.

Thirdly, the domestic demand industry can move the factories from eastern to the middle and western, because the railway and the high way can easily transport those products.

Forth, give some tax incentives to the company who establish their facilities at the middle and western region.

Fifth, improve the travel environment of western and middle region. It will make better the travel industry's competition in the middle and western region, because the middle and western region still have many beautiful places undeveloped by the travel industry companies.

The inequality of China is difficult in disappearing in a short time, but we can imagine that the situation can become better and better by the implementing the development policy of western area. I believe that Chinese government will try their best to solve this problem.

Appendix

1. The Population of Eastern Region:

(Ten thousands)

	Beijing	Tianjin	Hebei	Shanghai	Jiangsu	Zhejiang	Fujian	Shandong	Guangdong	Hainan
1978	872	724	5057	1098.3	5834	3751	2446	7160	5064.2	528
1979	897	739	5105	1132.1	5893	3792	2487	7232	5140.5	540
1980	904	749	5168	1146.5	5938	3827	2519	7296	5227.7	553
1981	919	760	5256	1162.8	6010	3872	2563	7395	5323.5	561
1982	935	775	5356	1180.5	6089	3924	2620	7494	5415.3	571
1983	950	785	5420	1194	6135	3963	2668	7564	5494.1	581
1984	965	796	5487	1204.8	6171	3993	2720	7637	5576.6	589
1985	981	805	5548	1216.7	6213	4030	2769	7695	5655.6	598
1986	1028	815	5627	1232.3	6270	4070	2820	7776	5740.7	606
1987	1047	829	5710	1249.5	6348	4121	2875	7889	5832.2	615
1988	1061	839	5795	1262.4	6438	4170	2929	8009	5921.3	627
1989	1075	852	5881	1276.5	6536	4209	2984	8181	6025	639
1990	1086	866	6159	1283.4	6767	4238	3037	8424	6246.3	663
1991	1094	873	6220	1287.2	6844	4270	3079	8534	6349	674
1992	1102	879	6275	1289.4	6911	4304	3116	8580	6463.2	686
1993	1112	886	6334	1294.5	6967	4335	3150	8620	6581.6	701
1994	1125	891	6388	1298.8	7021	4364	3183	8653	6691.5	711
1995	1251	895	6437	1301.4	7066	4389	3237	8701	6788.7	724
1996	1259	898	6484	1304.4	7110	4413	3261	8744	6896.8	734
1997	1240	900	6525	1305.5	7148	4435	3282	8810	7013.7	743
1998	1246	905	6569	1306.6	7182	4456	3299	8872	7115.7	753
1999	1257	910	6614	1313.1	7213	4475	3316	8922	7298.9	762
2000	1364	912	6674	1321.6	7327	4596	3410	8975	7498.5	788
2001	1383	914	6699	1327.1	7355	4613	3440	9024	7565.3	796
2002	1423	919	6735	1334.2	7381	4647	3466	9069	7649.3	803
2003	1456	926	6769	1341.8	7406	4680	3488	9108	7723.4	811
2004	1493	933	6809	1352.4	7433	4720	3511	9163	7804.8	818
2005	1538	1043	6851	1778	7475	4898	3535	9248	9194	828

2. The Population of Middle Region

(Ten thousands)

	Heilongjiang	Jilin	Liaoning	Shanxi	Anhui	Jiangxi	Henan	Hunan	Hubei
1978	3129.6	2149.3	3394	2423.6	4713	3182.82	7067	5165.9	4574.91
1979	3168.7	2184.6	3443	2447.2	4803	3228.98	7189	5223.1	4632.78
1980	3203.8	2210.7	3487	2476.5	4893	3270.2	7285	5281	4684.45
1981	3239.3	2230.9	3535	2508.8	4957	3303.92	7397	5360.1	4740.35
1982	3281.1	2257.6	3572	2546	5016	3348.35	7519	5452.1	4800.92
1983	3306	2269.5	3603	2588.4	5056	3394.5	7632	5509.4	4865.73
1984	3331	2284.5	3660	2631.5	5103	3457.89	7737	5561.3	4917.75
1985	3357	2298	3689	2673.5	5156	3509.8	7847	5622.5	4980.19
1986	3385	2315.3	3753	2713.5	5217	3575.76	7985	5695.7	5047.83
1987	3424	2336.4	3780	2758.1	5287	3632.31	8148	5782.6	5120.27
1988	3466	2357.4	3820	2807.2	5377	3683.88	8317	5915.7	5184.94
1989	3510	2395.4	3929	2853	5469	3746.22	8491	6013.6	5258.83
1990	3543	2440.2	3946	2899	5661	3810.64	8649	6110.9	5439.29
1991	3575	2459.7	3990	2941.9	5737	3864.64	8763	6166.3	5512.33
1992	3608	2474	4016	2979.3	5794	3913.09	8861	6207.8	5579.85
1993	3640	2496.1	4042	3012.6	5825	3966.04	8946	6245.6	5653.48
1994	3672	2515.6	4067	3045.2	5889	4015.45	9027	6302.6	5718.81
1995	3701	2550.9	4092	3077.3	5923	4062.54	9100	6392	5772.07
1996	3728	2579.1	4116	3109.3	5957	4105.46	9172	6428	5825.13
1997	3751	2600.1	4138	3140.9	5992	4150.33	9243	6465	5872.6
1998	3773	2603.2	4157	3172.2	6016	4191.21	9315	6502	5907.23
1999	3792	2616.1	4171	3203.6	6051	4231.17	9387	6532	5938.03
2000	3807	2627.3	4184	3247.8	6093	4148.54	9488	6562.1	5960
2001	3811	2637.1	4194	3271.6	6128	4185.77	9555	6595.9	5974.56
2002	3813	2649.4	4203	3293.7	6144	4222.43	9613	6628.5	5987.8
2003	3815	2658.6	4210	3314.3	6163	4254.23	9667	6662.8	6001.7
2004	3816.8	2661.9	4217	3335.1	6228	4283.57	9717	6697.7	6016.1
2005	3820	2716	4221	3355	6120	4311	9380	6326	5710

3. The Population of Western Regions

(Ten thousands)

	Guangxi	Chongqing	Sichuan	Guizhou	Yunnan	Tibet	Shaanxi	Gansu	Qinghai	Ningxia	Xinjiang	Mongolia
1978	3402	2636	7072	2686	3091	179	2779	1870	365	356	1233	1823
1979	3470	2654	7121	2731	3135	183	2807	1894	372	364	1256	1852
1980	3538	2665	7155	2777	3173	185	2831	1918	377	374	1283	1877
1981	3613	2694	7216	2827	3223	186	2865	1941	382	383	1303	1921
1982	3684	2722	7300	2875	3283	189	2904	1975	393	393	1316	1942
1983	3733	2739	7337	2901	3331	193	2931	1988	393	399	1333	1970
1984	3806	2748	7364	2932	3372	197	2966	2016	402	407	1344	1993
1985	3873	2768	7419	2972	3418	199	3002	2041	407	415	1361	2016
1986	3946	2808	7512	3026	3480	202	3042	2071	421	424	1384	2041
1987	4016	2845	7613	3073	3534	208	3088	2103	428	435	1406	2066
1988	4088	2873	7716	3127	3594	212	3140	2136	434	445	1426	2094
1989	4150	2897	7803	3170	3648	216	3198	2171	440	455	1454	2122
1990	4242	2921	7893	3268	3731	218	3316	2255	447	466	1529	2163
1991	4324	2939	7948	3315	3782	222	3363	2285	454	474	1555	2184
1992	4380	2951	7992	3361	3832	225	3405	2314	461	482	1581	2207
1993	4438	2965	8037	3409	3885	229	3443	2345	467	491	1605	2232
1994	4493	2986	8099	3458	3939	232	3481	2378	474	504	1633	2261
1995	4543	3002	8161	3508	3990	236	3513	2438	481	512	1661	2284
1996	4589	3023	8215	3555	4042	239	3543	2467	488	521	1689	2307
1997	4633	3043	8265	3606	4094	243	3570	2494	496	529	1718	2326
1998	4675	3060	8316	3658	4144	245	3596	2519	503	537	1747	2345
1999	4713	3072	8359	3710	4192	248	3618	2543	510	543	1775	2362
2000	4751	3091	8408	3756	4241	251	3644	2557	516	554	1849	2372
2001	4788	3098	8437	3799	4287	254	3659	2575	523	563	1876	2378
2002	4822	3114	8475	3837	4333	255	3674	2593	528	572	1905	2379
2003	4857	3130	8529	3870	4376	259	3690	2603	534	580	1934	2380
2004	4889	3144	8595	3904	4415	263	3705	2619	539	588	1963	2384
2005	4660	2798	8212	3739	4450	277	3720	2594	543	596	2010	2386

4. The GRP[11] of Eastern Region

(100 million yuan)

	Beijing	Tianjin	Hebei	Shanghai	Jiangsu	Zhejiang	Fujian	Shandong	Guangdong	Hainan
1978	108.8	82.65	183.1	272.81	249.2	123.7	66.4	225.45	185.8	16.4
1979	120.1	93	203.2	286.43	298.6	157.6	74.1	251.6	209.3	17.5
1980	139.1	103.52	219.2	311.89	319.8	179.7	87.1	292.13	249.6	19.3
1981	139.2	107.96	222.5	324.76	350	204.5	105.6	346.57	290.4	22.2
1982	154.9	114.1	251.5	337.07	390.2	233.4	117.8	395.38	339.9	28.9
1983	183.1	123.4	283.2	351.81	437.7	256.2	127.8	459.83	368.8	31.1
1984	216.6	147.47	332.2	390.85	518.9	322.1	157.1	581.56	458.7	37.2
1985	257.1	175.71	396.8	466.75	651.8	427.5	200.5	680.46	577.4	43.3
1986	284.9	194.67	436.7	490.83	744.9	500.1	222.5	742.05	667.5	48
1987	326.8	220	521.9	545.46	922.3	603.7	279.2	892.29	846.7	57.3
1988	410.2	259.64	701.3	648.3	1208.9	765.8	383.2	1117.7	1155.4	77.1
1989	456	283.34	822.8	696.54	1321.9	843.7	458.4	1293.9	1381.4	91.4
1990	500.8	310.95	896.3	756.45	1416.5	898	522.3	1511.2	1559	102.5
1991	598.9	342.75	1072	893.77	1601.4	1082	619.9	1810.5	1893.3	120.5
1992	709.1	411.24	1279	1114.3	2136	1365	784.7	2196.5	2447.5	181.7
1993	863.5	536.1	1691	1511.6	2998.2	1910	1128.3	2779.5	3431.9	258.1
1994	1084	725.14	2188	1971.9	4057.4	2667	1675.7	3872.2	4516.6	331
1995	1395	917.65	2850	2462.6	5155.3	3525	2145.9	5002.3	5734	364.2
1996	1616	1099.5	3453	2902.2	6004.2	4146	2560.1	5960.4	6519.1	389.5
1997	1810	1235.3	3954	3360.2	6680.3	4638	2974.5	6650	7315.5	409.9
1998	2011	1336.4	4256	3688.2	7200	4988	3286.6	7162.2	7919.1	438.9
1999	2174	1450.1	4569	4035	7697.8	5365	3550.2	7662.1	8464.3	471.2
2000	2479	1639.4	5089	4551.2	8582.7	6036	3920.1	8542.4	9662.2	518.5
2001	2846	1840.1	5578	4950.8	9511.9	6748	4253.7	9438.3	10648	566.7
2002	3213	2051.2	6123	5408.8	10632	7796	4682	10552	11736	624.9
2003	3663	2447.7	7099	6250.8	12461	9395	5223	12436	13626	691.7
2004	4283	2931.9	8837	7450.3	15512	11243	6053.1	15491	16040	790.1
2005	6886	3697.6	10096	9154.2	18306	13438	6568.9	18517	22367	894.6

[11] GRP Gross region production in this thesis it is means gross province production.

5. The GRP of Middle Region

(100 million yuan)

	Heilongjiang	Jilin	Liaoning	Shanxi	Anhui	Jiangxi	Henan	Hunan	Hubei
1978	174.8	82	229.2	88	114	87	162.92	147	151
1979	187.2	91.1	245	106.4	127.3	104.15	190.09	178	188.46
1980	221	98.6	281	108.8	140.9	111.15	229.16	191.7	199.38
1981	228.3	111.2	288.6	121.7	170.5	121.26	249.69	209.7	219.75
1982	248.4	121.7	315.1	139.2	187	133.96	263.3	232.5	241.05
1983	276.9	150.1	364	155.1	215.7	144.13	327.95	257.4	262.58
1984	318.3	174.4	438.2	197.4	265.7	169.11	370.04	287.3	328.22
1985	355	200.4	518.6	219	331.2	207.89	451.74	350	396.26
1986	400.8	227.2	605.3	235.1	382.8	230.82	502.91	397.7	442.04
1987	454.6	297.5	719.1	257.2	442.4	262.9	609.6	469.4	517.77
1988	552	368.7	881	316.7	546.9	325.83	749.09	584.1	626.52
1989	630.6	391.7	1004	376.3	616.3	376.46	850.71	640.8	717.08
1990	715.2	425.3	1063	429.3	658	428.62	934.65	744.4	824.38
1991	824.2	463.5	1200	468.5	663.6	479.37	1045.73	833.3	913.38
1992	964	558.1	1473	551.1	801.2	572.55	1279.75	987	1088.4
1993	1203.2	718	2011	671.6	1070	723.04	1662.76	1260	1424.4
1994	1618.6	968.8	2462	805.8	1489	948.16	2224.43	1667	1878.7
1995	2014.5	1129	2793	1034.5	2004	1169.7	3002.74	2151	2391.4
1996	2402.6	1337	3158	1226	2339	1409.7	3661.18	2585	2970.2
1997	2708.5	1447	3583	1381.1	2670	1605.8	4079.26	2919	3450.2
1998	2832.8	1558	3882	1486.1	2806	1719.9	4356.6	3118	3704.2
1999	2897.4	1661	4172	1506.8	2909	1853.7	4576.1	3327	3858
2000	3253	1865	4669	1643.8	3038	2003.1	5137.66	3692	4276.3
2001	3561	2033	5033	1780	3290	2175.7	5640.11	3983	4662.3
2002	3882.2	2246	5458	2017.5	3554	2450.5	6168.73	4341	4975.6
2003	4430	2523	6003	2456.6	3972	2830.5	7048.59	4639	5401.7
2004	5303	2958	6873	3042.4	4813	3495.9	8815.09	5612	6309.9
2005	5511.5	3620	8009	4179.5	5375	4056.8	10587.4	6511	6520.1

6. The GRP of Western Region

(100 million yuan)

	Guangxi	Chongqing	Sichuan	Guizhou	Yunnan	Tibet	Shaanxi	Gansu	Qinghai	Ningxia	Xinjiang	Mongolia
1978	75.9	67.3	185	46.62	69.1	6.65	81.1	64.7	15.5	13	39.07	58
1979	84.6	75.8	206	55.28	76.8	7.3	94.5	67.5	15.2	14.4	45.63	64.1
1980	97.3	84.7	229	60.26	84.3	8.67	94.9	73.9	17.8	16	53.24	68.7
1981	113.5	90.6	242	67.89	94.1	10.4	102.1	70.9	17.5	17.4	59.41	77.9
1982	129.2	100.4	275	79.39	110	10.21	112	76.9	19.9	18.2	65.24	93.2
1983	134.6	111.2	311	87.38	120	10.29	123.4	91.5	22.5	20.8	78.55	105.9
1984	150.3	131	358	108.3	140	13.68	149.4	103.2	26.4	24.8	89.75	128.2
1985	181	151.5	421	123.9	165	17.76	180.9	123.4	33	30.3	112.2	163.8
1986	205.5	169.8	258	139.6	182	16.93	208.3	140.7	38.4	34.5	129	181.6
1987	241.6	189.7	531	165.5	229	17.71	245	159.5	43.4	39.6	148.5	212.3
1988	313.3	239.1	660	211.8	301	20.25	314.5	191.8	55	50.3	192.7	270.8
1989	383.4	277.3	745	235.8	363	21.86	358.4	216.8	60.4	59.2	217.4	292.7
1990	449.1	298.4	891	260.1	452	27.7	404.3	242.8	69.9	64.8	274	319.3
1991	518.6	339.8	1016	295.9	517	30.53	466.8	271.4	75.1	71.8	335.9	359.7
1992	646.6	417.9	1177	339.9	619	33.29	538.4	317.8	87.5	83.1	402.3	421.7
1993	871.7	549.8	1486	416.1	779	37.28	661.4	372.2	110	104	505.6	532.7
1994	1198	751.2	2001	521.2	974	45.84	816.6	451.7	138	134	673.7	681.9
1995	1498	1010	2505	630.1	1207	55.98	1000	553.4	165	170	825.1	832.9
1996	1698	1179	2985	713.7	1492	64.76	1176	714.2	184	194	912.2	984.8
1997	1817	1350	3320	793	1644	76.98	1300	781.3	202	211	1050	1100
1998	1903	1429	3580	841.9	1794	91.18	1382	869.8	220	227	1117	1192
1999	1953	1480	3712	911.9	1856	105.6	1488	932	238	241	1169	1268
2000	2050	1589	4010	993.5	1955	117.5	1661	983.4	264	266	1364	1401
2001	2231	1750	4422	1085	2075	138.7	1844	1073	301	298	1485	1546
2002	2455	1971	4875	1185	2232	161.4	2102	1161	341	329	1598	1734
2003	2735	2251	5456	1356	2466	184.5	2399	1305	390	385	1878	2150
2004	3320	2665	6556	1592	2959	221.5	2884	1559	466	460	2200	2712
2005	4076	3070	7385	1979	3473	251.2	3676	1934	543	606	2604	3896

7. Average Personal Income in the Eastern Region

(yuan / people)

	Beijing	Tianjin	Hebei	Shanghai	Jiangsu	Zhejiang	Fujian	Shandong	Guangdong	Hainan
1978	1249	1141	362.1	2484	427.1	329.8	271.46	314.9	366.89	310.3
1979	1339	1258	398	2530	506.7	415.6	297.95	347.9	407.16	323.9
1980	1538	1382	424.1	2720.3	538.5	469.6	345.77	400.4	477.46	349.3
1981	1514	1420	423.3	2792.8	582.3	528.2	412.02	468.7	545.51	395.9
1982	1657	1472	469.6	2855.3	640.8	594.8	449.62	527.6	627.66	505.8
1983	1928	1571	522.5	2946.5	713.4	646.5	479.01	607.9	671.26	535.6
1984	2245	1854	605.4	3244.2	840.8	806.6	577.57	761.5	822.55	631.2
1985	2621	2183	715.2	3836.2	1049	1061	724.09	884.3	1020.9	724.7
1986	2771	2389	776.1	3982.9	1188	1229	789.01	954.3	1162.7	792.6
1987	3121	2655	914	4365.4	1453	1465	971.13	1131	1451.8	931.6
1988	3866	3094	1210	5135.4	1878	1837	1308.3	1396	1951.3	1230
1989	4241	3324	1399	5456.9	2023	2005	1536.2	1582	2292.8	1430
1990	4612	3590	1455	5894.3	2093	2119	1719.8	1794	2495.9	1547
1991	5474	3928	1724	6943.5	2340	2534	2013.3	2122	2982.1	1787
1992	6435	4679	2037	8642.4	3091	3171	2518.3	2560	3786.8	2647
1993	7766	6052	2669	11677	4303	4405	3581.9	3224	5214.4	3682
1994	9636	8143	3424	15183	5779	6112	5264.5	4475	6749.8	4653
1995	11149	10257	4427	18923	7296	8031	6629.3	5749	8446.3	5032
1996	12829	12237	5325	22249	8445	9395	7850.7	6817	9452.4	5306
1997	14598	13728	6059	25740	9346	10459	9063.1	7548	10430	5517
1998	16147	14765	6479	28228	10024	11192	9962.4	8073	11129	5830
1999	17296	15932	6908	30728	10672	11988	10706	8588	11597	6184
2000	18178	17975	7625	34436	11713	13134	11496	9518	12885	6580
2001	20571	20133	8326	37305	12933	14628	12365	10459	14074	7123
2002	22574	22318	9091	40538	14404	16777	13508	11635	15342	7781
2003	25152	26433	10487	46586	16826	20077	14974	13654	17642	8534
2004	28695	31439	12978	55090	20871	23822	17240	16906	20551	9661
2005	44774	35452	14737	51486	24489	27435	18583	20023	24327	10804

8. Average Personal Income in the Middle Region

(yuan / people)

	Heilong jiang	Jilin	Liaoning	Shanxi	Anhui	Jiangxi	Henan	Hunan	Hubei
1978	558.5	381.5	675.3	363.1	241.9	273.3	230.5	284.6	330.1
1979	590.8	417	711.6	434.8	265	322.5	264.4	340.8	406.8
1980	689.8	446	805.9	439.3	288	339.9	314.6	363	425.6
1981	704.8	498.5	816.4	485.1	344	367	337.6	391.2	463.6
1982	757.1	539.1	882.1	546.7	372.8	400.1	350.2	426.4	502.1
1983	837.6	661.4	1010	599.2	426.6	424.6	429.7	467.2	539.7
1984	955.6	763.4	1197	750.1	520.7	489.1	478.3	516.6	667.4
1985	1057	872.1	1406	819.1	642.4	592.3	575.7	622.5	795.7
1986	1184	981.3	1613	866.4	733.8	645.5	629.8	698.2	875.7
1987	1328	1273	1902	932.5	836.8	723.8	748.2	811.7	1011
1988	1593	1564	2306	1128	1017	884.5	900.7	987.4	1208
1989	1797	1635	2555	1319	1127	1005	1002	1066	1364
1990	2019	1743	2693	1481	1162	1125	1081	1218	1516
1991	2305	1884	3008	1593	1157	1240	1193	1351	1657
1992	2672	2256	3668	1850	1383	1463	1444	1590	1951
1993	3305	2876	4975	2229	1837	1823	1859	2017	2519
1994	4408	3851	6053	2646	2528	2361	2464	2644	3285
1995	5443	4427	6826	3362	3383	2879	3300	3366	4143
1996	6445	5185	7672	3943	3927	3434	3992	4021	5099
1997	7221	5565	8658	4397	4456	3869	4413	4515	5875
1998	7508	5984	9338	4685	4663	4104	4677	4796	6271
1999	7641	6349	10002	4703	4807	4381	4875	5093	6497
2000	8545	7098	11159	5061	4986	4828	5415	5626	7175
2001	9344	7707	12001	5441	5369	5198	5903	6039	7804
2002	10181	8478	12986	6125	5784	5803	6417	6549	8310
2003	11612	9488	14258	7412	6446	6653	7291	6962	9000
2004	13894	11113	16298	9122	7728	8161	9072	8379	10488
2005	14428	13329	18974	12458	8783	9410	11287	10293	11419

9. Average Personal Income in the Western Region

(yuan / people)

	Guangxi	Chongqing	Sichuan	Guizhou	Yunnan	Tibet	Shaanxi	Gansu	Qinghai	Ningxia	Xinjiang	Mongolia
1978	223.1	255.4	261	174	223	372	291.8	346	424.7	365.6	316.9	318.1
1979	243.8	285.6	289	202	245	400	336.7	356	408.6	394.1	363.3	346.1
1980	275	317.8	320.5	217	266	468	335.2	385	472.1	427.1	414.9	366.1
1981	314.1	336.3	335.8	240	292	559	356.4	365	458.1	454.4	455.9	405.5
1982	350.7	368.9	377	276	335	539	385.7	389	506.4	463.6	495.8	480
1983	360.6	406	423.9	301	360	533	421	460	572.5	521	589.1	537.6
1984	394.9	476.8	486.2	369	414	696	503.7	512	656.7	609	667.7	643.2
1985	467.3	547.3	567.6	417	483	890	602.6	605	810.8	730.1	824.6	812.5
1986	520.8	604.8	343.8	461	524	836	684.7	679	912.1	814	932.6	889.9
1987	601.6	666.8	697.3	539	648	852	793.4	758	1014	910.7	1056	1027
1988	766.4	832.1	854.9	677	838	954	1002	898	1267	1131	1351	1293
1989	923.9	957.2	954.7	744	995	1012	1121	999	1373	1302	1495	1379
1990	1059	1022	1129	796	1211	1270	1219	1077	1564	1392	1792	1476
1991	1199	1156	1279	893	1368	1377	1388	1188	1654	1515	2161	1647
1992	1476	1416	1473	1011	1615	1478	1581	1373	1898	1724	2545	1911
1993	1964	1854	1849	1221	2006	1629	1921	1587	2347	2115	3150	2386
1994	2667	2516	2471	1507	2473	1976	2346	1899	2916	2659	4126	3017
1995	3297	3363	3069	1796	3025	2377	2847	2270	3437	3313	4967	3646
1996	3700	3901	3634	2007	3691	2706	3319	2895	3762	3715	5400	4269
1997	3923	4437	4017	2199	4016	3171	3641	3133	4075	3988	6112	4729
1998	4071	4671	4305	2302	4329	3716	3842	3453	4378	4239	6391	5085
1999	4144	4816	4440	2458	4426	4263	4112	3665	4675	4445	6583	5369
2000	4315	5142	4770	2645	4610	4675	4558	3846	5109	4791	7377	5905
2001	4660	5648	5241	2856	4839	5468	5040	4165	5755	5298	7918	6502
2002	5092	6331	5753	3088	5152	6319	5720	4479	6460	5761	8389	7291
2003	5631	7190	6397	3504	5635	7118	6500	5012	7307	6642	9709	9037
2004	6791	8477	7627	4078	6703	8410	7783	5952	8640	7833	11207	11374
2005	8746	10974	8993	5293	7804	9069	9881	7456	10006	10169	12956	16327

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