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China's Economic Reform:
Regional Development and Equity Implications

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Abstract

It is a received opinion that China's emergence as a regional and global power is the most pivotal transformation underway in East Asia. China's enhanced economic standing in Asia has given her new political influence in the region as her trade with the neighbouring states, in particular the member countries of the Association of Southeast Asian Nations (ASEAN) to her south, has been expanding rapidly in recent years. The stunning economic growth of China has created tremendous business opportunities and signed deals have been drawing increasing volume of foreign investment into this Asian giant that was described to have shaken the world – not with her armies, but with her factories. Whether this market is really that huge with potential as has often been presumed and taken for granted is today a topic hotly debated all over the world. On the other hand, domestically, while China's economic reform has been successful in giving many people higher incomes and producing more goods and services, it also led to increasingly acute inequality in income and wealth among the populace. From one of the world's most egalitarian societies in the 1970s, today China has turned into one of the most unequal countries in the region and even among developing countries in general. Furthermore, as the geographical correlation of ethnic minority distribution and poverty population distribution is unmistakable, reflecting the composite phenomenon made up of rural poverty, regional poverty and ethnic poverty, ethnoregionalization of poverty may present China not only with economic challenges but also long-term sociopolitical uncertainties that could impact the East Asian region and the world at large. Besides, gains and losses in the continued war on poverty in this country that comprises one-fifth of humanity could provide valuable lessons for other developing countries in the region and beyond. In the light of the above, this paper looks into the increasing concern over whether economic rise of China is posing a threat to regional stability and prosperity and examines also the so-called "China threat" from a different perspective, by asking whether the threat to China herself in the post-Cold War world and the oft-cited potential threat posed by China to her neighbours and to the world at large could in fact come from within China herself, engendered by her increasingly volatile intergroup relations owing to her breakneck economic transformation and the accompanying income and wealth disparities.

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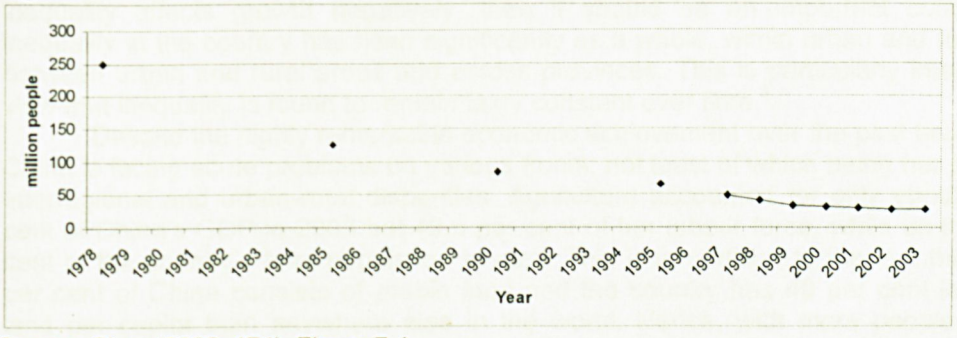
Introduction

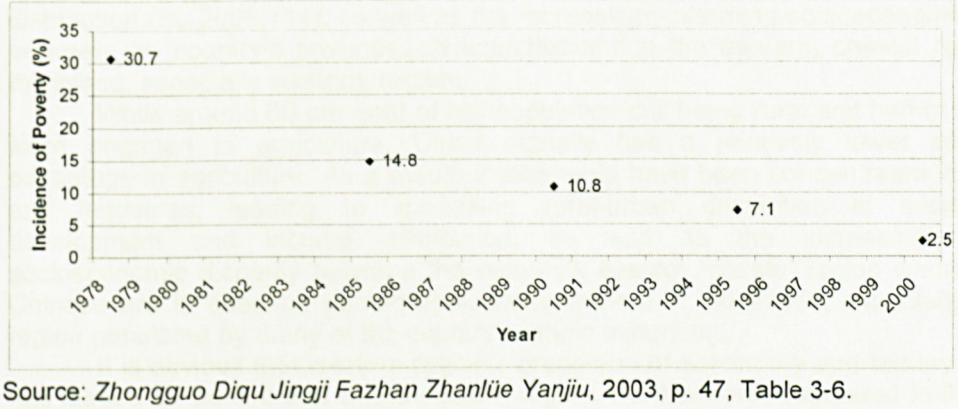
The highly remarkable economic performance of the once low-income, xenophobic and inward-looking state of China over the past three decades have attracted increasing interest from the academics and policy-makers all over the world to the "China miracle" and the impact of such impressive achievement of the world's most populous country on regional and world economies. Flassbeck, Dullen and Geiger (2005) argued that the ability of China to both master the challenges of globalization and modernize the domestic economy at the same time has depended upon the strategy of unilaterally fixing the exchange rate since 1974 that was accompanied by a reform of the wage-setting regime in the mid-1990s, a heterodox macroeconomic demand management and a rather closed capital account. China's performance over the past three decades was no mean feat – whether in term of the fivefold increase in income per capita and average private consumption since the beginning of the reform phase in 1979, or her ability to lift over 200 million people out of absolute poverty (*ibid.*).

Figure 1 China: Rural Population in Poverty



Source: Chen (2006: 174), Figure 7-1.

Figure 2 China: Rural Incidence of Poverty



Source: *Zhongguo Diqu Jingji Fazhan Zhanlüe Yanjiu*, 2003, p. 47, Table 3-6.

Since the reform and the open-door policy, China has achieved magnificent economic growth, with its real gross domestic product (GDP) growing at an amazing 9.6 per cent per year during 1978-2006. Simultaneously, the real per capita GDP increases nine-fold and the real per capita income rises to more than six-fold (*China Statistical Yearbook*, various issues). The growth of China's income per capita is much faster than that of any other region in the world.

The profound changes experienced by the Chinese economy are due to economic necessity and political determination to modernize and reform with the latter is revolutionized by Deng Xiaoping. Under this open door policy, China gradually reduces the scope of mandatory planning, decentralizing its economic decision making and has allowed market forces to operate. As a result, China seems to have nearly completed its transition from a planned economic system to a system that reflects the market economy nowadays.

Growth, Inequality and the Regional Dimension

Unfortunately, the fruits of growth have not been distributed fairly across regions in China. For any given level of natural or human capital, the greater the inequality, the higher the poverty one can expect. Inequality is also seen to affect long-term economic growth, although there is no consensus on the direction of the effect. If inequality affects growth positively, it is possible that the poverty rate can be reduced and the impact of this growth has an offsetting effect on the direct adverse effect of inequality of welfare, and hence there is a reason to tolerate relatively high inequality. On the other hand, if inequality affects growth negatively, then it should be an important concern. The inequality in the country has risen significantly as a whole, within urban and rural areas, between urban and rural areas and across provinces. This is particularly interesting, in view that inequality is found to remain fairly constant over time.[1]

Despite the highly remarkable economic achievement over the past two decades, China is facing acute problems on various fronts, not least of which being her expanding interregional and urban-rural disparities. Agriculture accounted for only about 14.6 per cent of China's GDP in 2003 but 49.5 per cent of her labour force, while up to 59.5 per cent of the country's total population is rural. This is in addition to the fact that only 13 per cent of China consists of arable land and the country has 40 per cent less arable land per capita than anywhere else in the world. Hence, with more people and less arable land in rural areas, the country has a lower comparative advantage in agriculture, and hence investments have been concentrated in the cities and industries and this has led to increasing rural-urban disparities in socioeconomic development and income distribution (Bi, 2005:114), as well as the increasingly alarming socioeconomic disparity between the country's provinces/zizhiqu/zhixiashi[2] in the eastern, coastal regions and the inland, especially western, regions.

While around 60 per cent of her population still being rural and half of her labour force engaged in agriculture, China actually has a relatively lower comparative advantage in agriculture. As a result, investments have been concentrated in the cities and industries, leading to increasing rural-urban disparities in socioeconomic development and income distribution, as well as the increasingly alarming socioeconomic disparity between the country's eastern, coastal region where the Han Chinese are in absolute demographic dominance and the inland, especially western, region populated by many of the country's ethnic minorities.

It is obvious that western region's proportion of secondary and tertiary industries has lagged far behind that of the eastern region. Furthermore, compared to the eastern region, the proportion of the primary and secondary industries was obviously too large (63 per cent), while the development of the tertiary industry was severely inadequate. While the proportion of population in agricultural sector employment has dropped during 1990-2000 nationally (72.2 per cent to 64.6 per cent, i.e. by 7.8 percentage points) and for both the Han Chinese (71.3 to 63.0, by 8.34 points) and ethnic minorities (80.13 to 74.50, by 5.63 points), the extent of decline for the ethnic minorities was lower than the

national figure and that of the Han Chinese, making them the largest grouping engaged in agriculture. (*Zhongguo Minzu Fazhan Baogao, 2001-2006*, p. 235)

Figure 3 China: Three Economic Regions

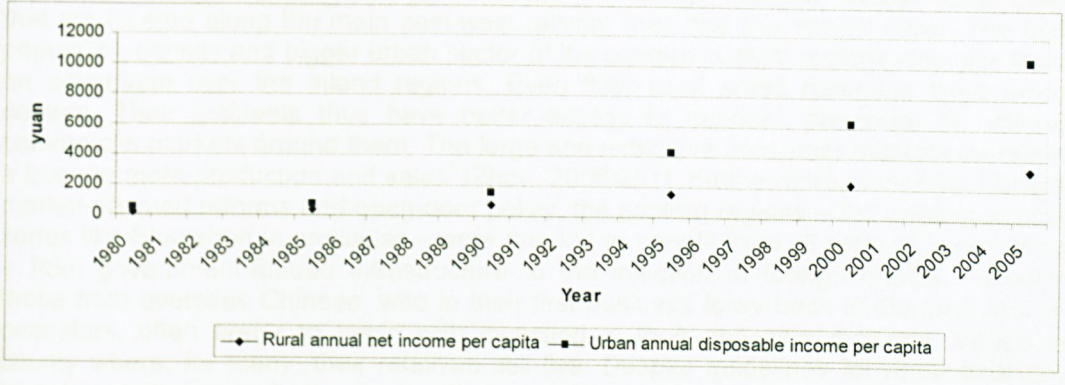
Notes: Province/Zizhiqu/Zhixiashi in the officially designated Western Region in bold italics.
Regional Boundary
Source: Yeoh (2008c), Figure 6.23.

Figure 4 China: Six Economic Regions

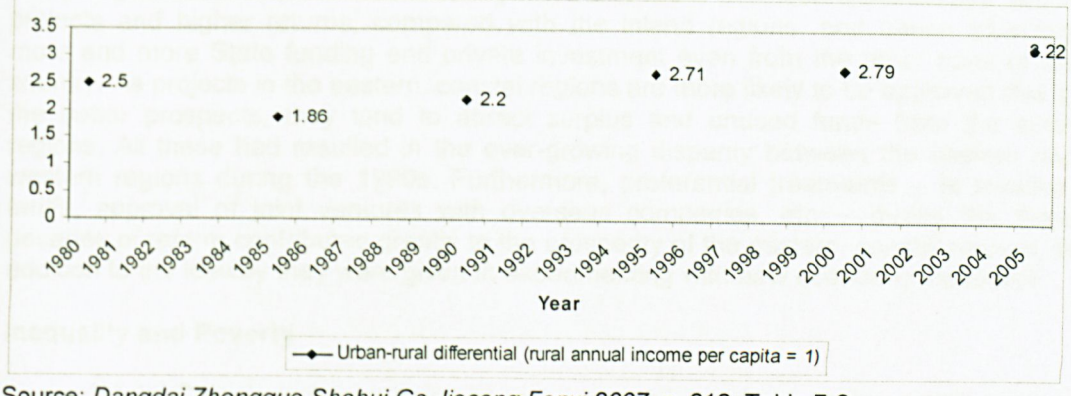
Notes: Province/Zizhiqu/Zhixiashi in the officially designated Western Region under the three-region scheme in bold italics.
Regional Boundary
Source: Yeoh (2008c), Figure 6.24.

Figure 5 China: Urban-Rural Income Gap

(a) Rural and urban income per capita



(b) Urban-rural differential



Source: *Dangdai Zhongguo Shehui Ge Jieceng Fenxi 2007*, p. 212, Table 7-2.

Due to the fact that different regions of China were opened up to the outside world at different time (early or late) and at different degrees of openness, there are obvious interregional differentials in terms of the effect of economic globalization. The differentials are shockingly substantial. Even in terms of agricultural produce, the western region is the lowest in its external trade.

Many different factors have led to the disparity between China's eastern and western regions. In the modern history of the country, the coastal belt has been the focus of foreign influence and the site of foreign concessions and open cities, with business and production bases established there to take advantage of the convenience of import and export facilities. Hence, ironically, it was the foreign powers who first stimulated China's industrial development, mainly in the coastal cities – and Shanghai in particular. This imbalance in favour of the coastal belt was accentuated further in the 1930s by the Japanese take-over of Manchuria where the puppet state of "Manchukuo" was established as an industrial centre, concentrating on heavy industry and mining (in contrast with the other foreign treaty ports and concessions that concentrated more upon the light industries), to feed Japan's industrial and military needs.

Besides such historical factors, geographical location also contributed to the east-west disparity. The eastern coastal regions have benefited from the availability of widespread, interconnected water and land freight lines – such as the Yangzi River

(Chang Jiang), the Beijing-Guangzhou and Beijing-Shanghai railway lines – that have greatly facilitated the transportation of people and merchandize. The western regions generally lack connexions to major domestic and foreign markets, except some cities that are located along the main east-west railway lines and the Yangzi River. The high population density and bigger urban sector of the eastern coastal regions also give them an advantage over the inland regions. Even their rural areas resemble large urban centres. Their residents thus have better access to regional, provincial or national commercial markets around them. The large and extensive consumer markets represent a boon to more production and sales[3] (Zhou, 2006:251). Furthermore, under the Dengist market-oriented reforms and open-door policy, the eastern regions – the open economic zones like Shenzhen in particular – were the first to benefit from all sorts of investments – from government-funded infrastructure to the injection of foreign capital, including those from overseas Chinese, who in their first business foray back to the land of their ancestors, often prefer to begin with investing in their ancestral province, village or county where, for many, their relatives still live. Despite guidelines for more balanced investment strategies, in a scenario akin to the flypaper hypothesis, increasing economic prosperity in eastern China was creating more and more business opportunities, better projects and higher returns, compared with the inland regions, and hence attracting more and more State funding and private investment even from the other parts of the country. As projects in the eastern, coastal regions are more likely to be approved due to the better prospects, they tend to attract surplus and unused funds from the other regions. All these had resulted in the ever-growing disparity between the eastern and western regions during the 1990s. Furthermore, preferential treatments – in taxation, tariffs, approval of joint ventures with overseas companies, etc. – during the three decades of reform contributed greatly to the prosperity of the eastern, coastal regions, in addition to the leeway they were given in experimenting with new economic measures.

Inequality and Poverty

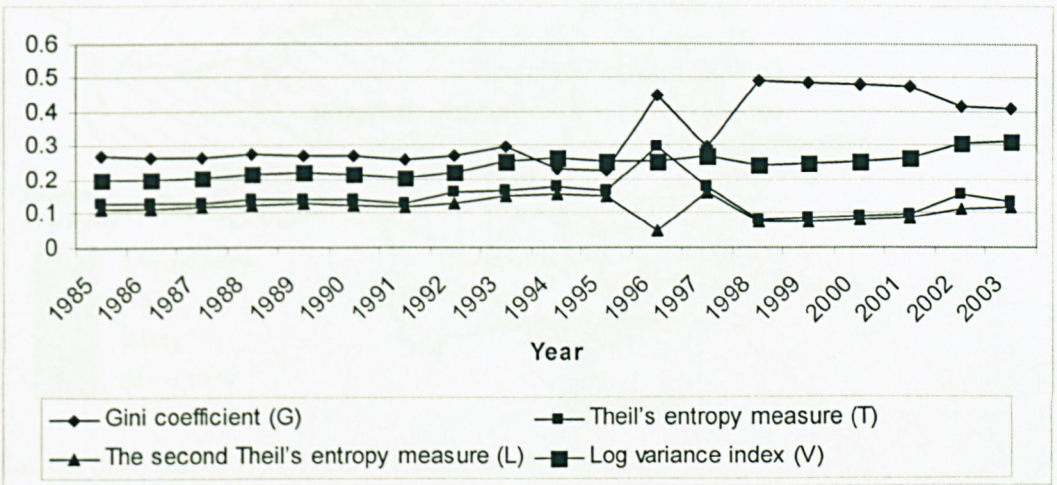
While China's reforms have been successful in giving many people higher incomes and producing more goods and services, they also led to increasingly acute inequality in income and wealth among the populace. From one of the most egalitarian societies in the 1970s, China has turned into one of the most unequal countries in the region and even among developing countries in general. The unusually rapid rise in inequality had led to the Gini coefficient of household income rising by 7 percentage points (18 per cent), or by 1.0 percentage point per year, between 1988 and 1995. Inequality of rural household income per capita increased by about 23 per cent over the period, and that of the urban household income per capita by 42 per cent (Riskin, Zhao and Li, 2001:3). As Bert Hoffman of the World Bank recently noted, China's Gini rose from 0.25 – equal to that of Germany – in 1980 to about 0.45 today, as the country becomes less equal than Russia or the United States of America. In the 1980s the richest 10 per cent of the people of China earned 7 times the income of the poorest 10 per cent, today they earn more than 18 times as much.[4] Or as another observer put it, "Ever since the early years of reforms, the divide between the rich and the poor had been emerging, and it is now getting to the stage of ripping the entire society apart." (Zhou, 2006:286).

Furthermore, a high poverty rate either in urban or rural areas will cause the regional disparity to be bigger. According to *China Population and Development Country Report 2004*[5], there is a sharp decline in rural poverty rate in China during the last decade. However, urban poverty becomes a new matter of concern recently. The number of those living in rural poverty fell from 80 million people by the end of 1993 to

29 million in 2003, in which it represented a decrease from 8.7 per cent to 3.1 per cent. With ongoing changes in China's economic system, problems of urban poverty are another new matter of concern. In 2003, an estimated number of 22.48 million urban residents had incomes below the basic standard of living. Moreover, women and children constitute the largest proportions of urban poor were.

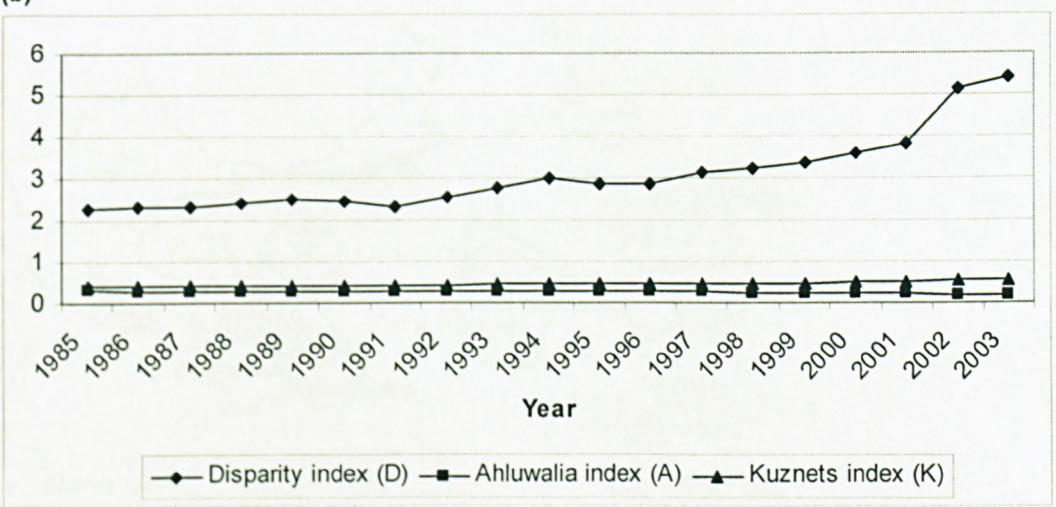
Figure 6 China: Urban Income Inequality

(a)



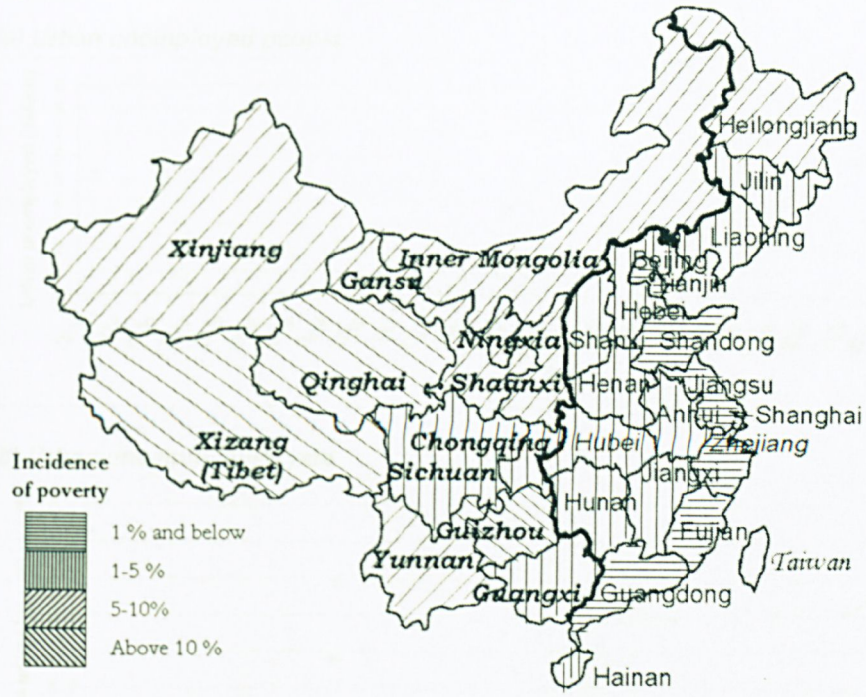
Source: Huang and Niu (2007: 157), Table 5-1 (computation followed Lambert and Aronson (1993) with data from issues of the *China Statistical Yearbook* of the years 1986–2004).

(b)



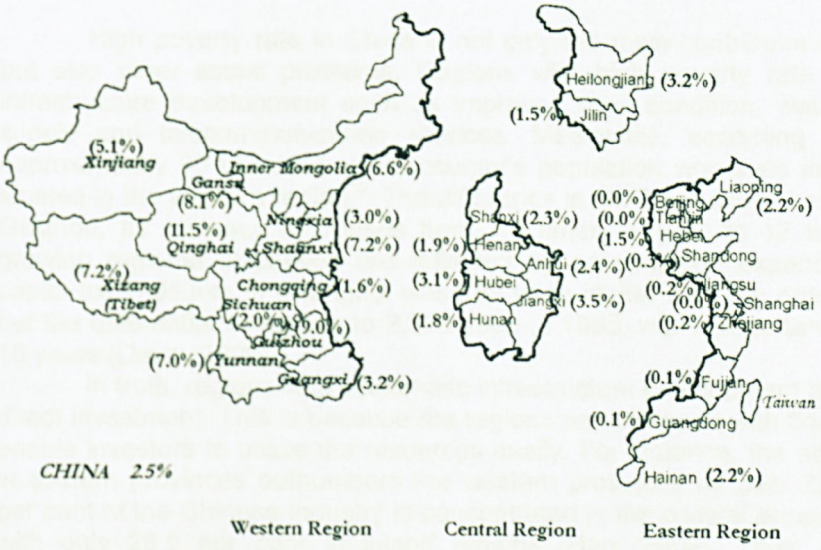
Source: Huang and Niu (2007: 62-63, 158), Table 5-2 (D – Ratio of the income share of the highest-income 20 per cent of the population to the income share of the lowest-income 20 per cent of the population; A – Income share of lowest-income 40 per cent of the population, with maximum value = 0.4; K – Income share of the highest-income 20 per cent of the population, with minimum value = 0.2).

Figure 7 China: Distribution of Rural Poor



Source: Chen (2006: 176), Table 7-1. Data are for year 2003.

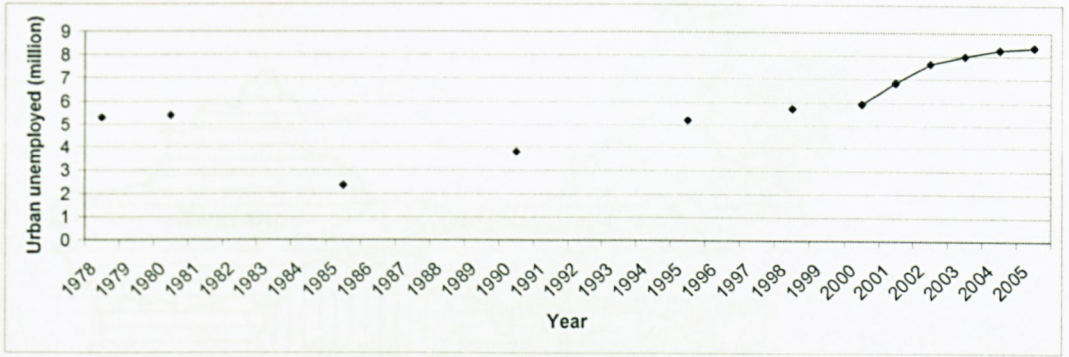
Figure 8 China: Incidence of Absolute Poverty by Province/Zizhiqu/Zhixiashi (2005)



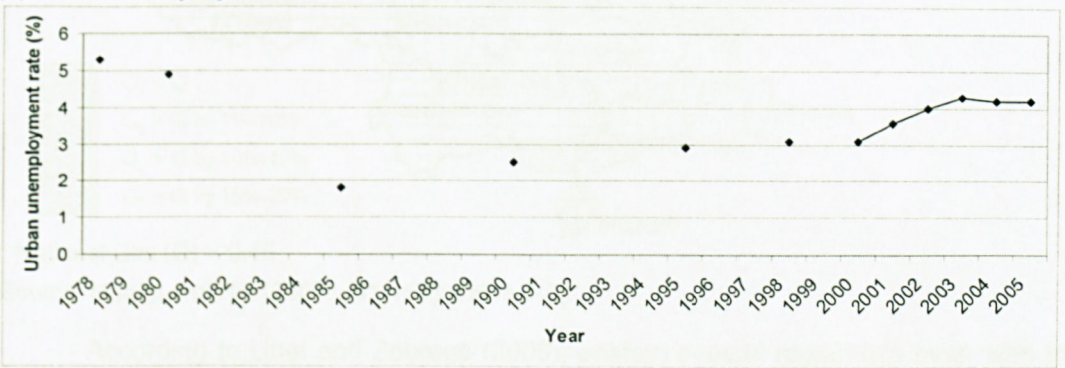
Source: *Zhongguo Fazhan Baogao 2007*, p. 39, Table 2.3.

Figure 9 China: Urban Unemployment

(a) Urban unemployed people



(b) Urban unemployment rate

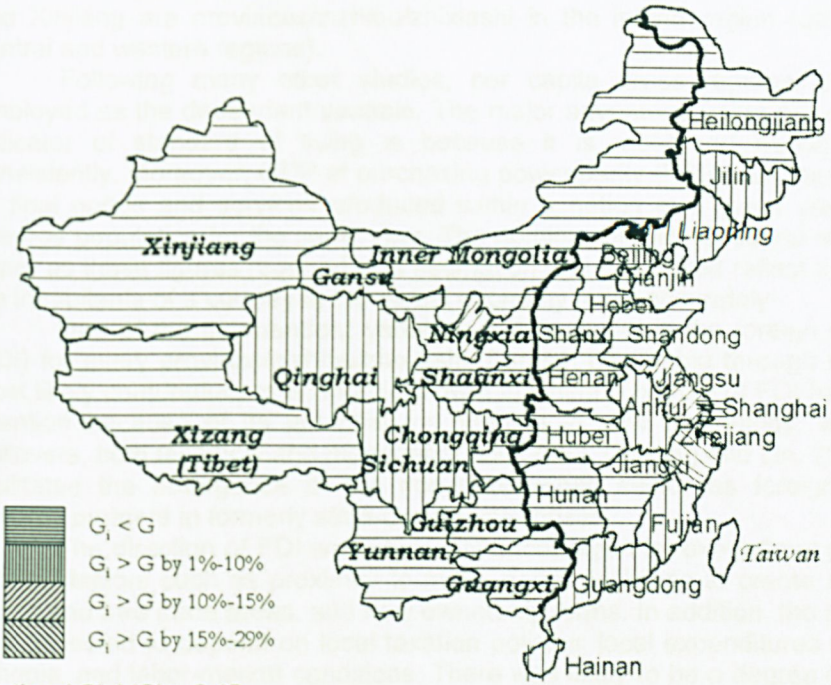


Source: *Dangdai Zhongguo Shehui Ge Jieceng Fenxi 2007*, p. 166, Table 5-1 (data from *China Statistical Yearbook*, various years).

High poverty rate in China is not only the main contributor to regional disparity, but also other social problems. Regions with high poverty rate normally faces low infrastructure development such as improved road condition, water supply, electricity supply and telecommunication services. Meanwhile, according to Chinese official, approximately 90 per cent of the country's population who lives in absolute poverty is located in the western region.[6] The difference in GDP per capita between Shanghai and Guizhou, for instance, increases from 7.3 times in 1990 to 12 times in 2000.[7] The growing regional disparities are reflected by consumption expenditures. In 1985 per capita expenditures in Shanghai was 299 yuan higher than the national urban average, but the differential increases to 2,929 yuan in 1995, with a near ten-fold increase within 10 years (Davis, 2000).

In truth, regions with systematic infrastructure development tend to attract foreign direct investment. This is because the regions are equipped with fine infrastructures that enable investors to utilize the resources easily. For instance, the amount of utilized FDI in eastern provinces outnumbers the western provinces by over 25 times. About 71.5 per cent of the Chinese industry is concentrated in the coastal areas in 1994, in contrast with only 28.5 per cent in inland regions (Han, 2002). Thus, human resource is concentrated in coastal areas although mineral resources are deposited mainly in the inland region. Moreover, productivity and living standards in the eastern coastal regions are higher than that of the inland regions.

Figure 10 China: Gini by Province/Zizhiqu/Zhixiashi



* National Gini (G) = 0.45

Source: Huang and Niu (2007: 161-162), Table 5-3(2).

According to Unel and Zebregs (2006), eastern coastal region has been able to attract more FDI because of the relative prosperity and improved infrastructure of which this has contributed to high growth rates for the region. Their findings suggested that the poorer provinces, especially those that are landlocked and have weak infrastructure, realized small incremental increases in per capita income, while the coastal provinces, because of their geographical and preferential policies, are catching up with the formerly rich provinces, of which many are now burdened by the large presence of inefficient SOEs and limited commercial orientation.

Given China's size, various regions have played an important role in promoting the country's economic development. In fact, most of the China's regional development policies are concentrated mainly in the three zones: east, central and west. According to Démurger (2000), the regional classification of provinces reveals that on average, the coastal provinces grew faster than the inland provinces, despite relatively poor performance of Liaoning province and municipalities of Tianjin and Shanghai. Regional dimension has been a crucial component of China's development policies. The open door policy and coastal development strategy during the 1980s and 1990s which favoured the coastal areas have increased interregional inequality significantly.

Empirical model

Below is the testing of an empirical model covering a total of 31 provinces/zizhiqu ("autonomous regions")[8]/zhixiashi (direct-ruled municipalities)[9]. They are divided into two main regions.[10] Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan are provinces/zhixiashi in the eastern, coastal region.

Guangxi, Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, Hunan, Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang are provinces/zizhiqu/zhixiashi in the inland region (officially designated central and western regions).

Following many other studies, per capita gross regional product (GRP) is employed as the dependent variable. The major advantage using per capita GRP as an indicator of standard of living is because it is measured frequently, widely and consistently. Moreover, GDP at purchasing power parity (PPP) can measure the value of all final goods and services produced within a nation in a given year divided by the average population for the same year. The nominal GRDP per capita is employed in this paper as these figures required less estimation and they could reflect the participation of the inhabitants of a country in the global economy more accurately.

One of the independent variables in this model is the foreign direct investment (FDI) for every province/zizhiqu/zhixiashi. Foreign ownership through FDI is one of the most likely contributors to economic growth in China. The role of FDI has received much attention because of its potential for bringing in new technology, with its attendant spillovers, both technical and managerial (Liu, 2008; Cheung and Lin, 2003: 56). FDI has facilitated the emergence of the non-state-owned sector as foreign investors have become partners in formerly state-owned enterprises.

The direction of FDI was obviously encouraged by exogenous geographical and political factors such as proximity to major ports, decisions to create special economic zones and free trade areas, and new ownership forms. In addition, the profitability of FDI was expected to depend on local taxation policies, local expenditures on infrastructure, schools, and labor-market conditions. There was likely to be a degree of endogeneity in these relationships (Li and Liu, 2005). One of the major features of the present study is to incorporate the endogeneity of FDI in a model explaining China's increased regional economic disparity.

The second independent variable in this model is the gross dependency ratio (GDR). It is referred as the ratio of non-working-age population to the working-age population expressed in percentage. Describing in general the number of non-working-age population that every 100 people at working ages will take care of, this indicator reflects the basic relation between population and economic development from the demographic perspective. The gross dependency ratio was calculated with the following formula:

$$GDR = \frac{P_{0-14} + P_{65+}}{P_{15-64}} * 100$$

where; GDR is the gross dependency ratio
P_{0-14} is the population of children aged 0-14
P_{65+} is the elderly population aged 65 and over, and
P_{15-64} is the working-age population aged 15-64
Source: *Tianjin Statistical Yearbook, 2006* <*http://www.stats-tj.gov.cn/2006nj/em2.htm*>

From the demographic perspective, a high fertility rate creates high dependency ratio or load, which in turn slows the growth of gross product per capital (Bloom and Canning, 2004: 10). While it is often argued that rapid population growth has a negative effect on the growth rate of income per capita, compelling evidence on this point has been rather elusive and counterarguments abound.

The element of infrastructure is another salient point to be explained in this model. For the infrastructure element, road development (ROAD) in China is utilized as

the measurement. With rapid economic growth, the demand for road transport soars, and transportation shortages and congestion problems surface as a consequence. Since 1985, the government has given high priority to road development, particularly construction of high-quality roads such as highways connecting major industrial centers in coastal areas. In the 1990s, investment in infrastructure became a national priority and various policies were implemented to promote the rapid construction of highways. The development of expressways has been particularly remarkable, with the total length increasing from 147 kilometers in 1988 to 25,130 kilometers in 2002, equivalent to an average annual growth rate of 44 per cent. (Lin and Song, 2002: 2257)

In contrast, the length of low quality, mostly rural roads increased very little, by only 3 per cent per year over the same period. Fan and Chan (2005) found out that there was a trade-off between growth and poverty reduction when investing in different parts of China. Road investments yield their highest economic returns in the eastern and central regions of China while their contributions to poverty reduction are greatest in western China (especially the southwest region).

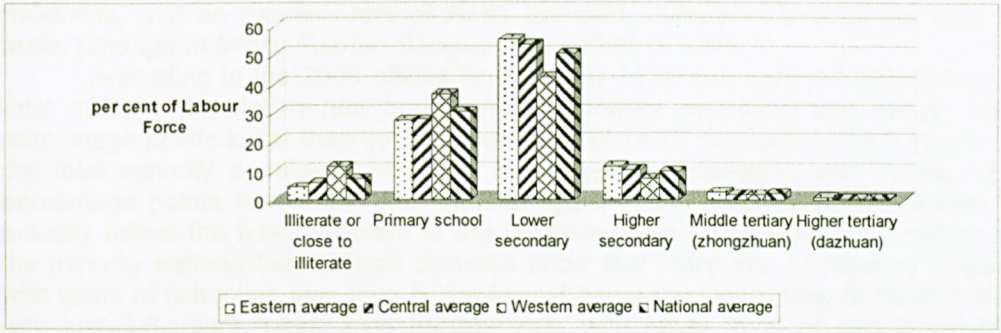
Finally, another important variable to be added in here is the human development index (HDI). The HDI provides a composite measure of three dimensions of human development which are living a long and healthy life (measured by life expectancy), being educated (measured by adult literacy and enrolment at the primary, secondary and tertiary level) and having a decent standard of living (measured by purchasing power parity, PPP, income) for countries worldwide (China Human Development Report, 2005). It was a standard means of measuring well-being, especially child welfare.

The HDI for China was 0.777, which giving the country a rank of 81st out of 177 countries in 2005 and placing it in the medium human development category (*China Human Development Report* 2005: p2). This highlighted the very large gaps in well-being and life chances that continued to divide China increasingly interconnected world. By looking at some of the most fundamental aspects of people's lives and opportunities, HDI is able to provide a much more complete picture of a country's development than other indicators, such as GDP per capita. Of the components of the HDI, only income and gross enrolment are somewhat responsive to short-term policy changes. For that reason, it is important to examine changes in the human development index over time (Heckmann, 2005).

One of the elements in HDI is the education level of a country's population. Indeed, illiteracy was a major problem for China's economic development during its first steps toward industrialization (under foreign entrepreneurship) in the 1920s (Spence, 1991); in the early post-revolution period of the 1950s, continued illiteracy among urban workers and lack of education among industry leaders contributed to the low productivity, wasted investment, and poor execution of economic plans and directives (Spence, 1991 and Naughton, 1995).

An important factor that is behind the interregional differential in economic performance is the education level of the labour force. While Woo *et al.* (2004) found that China appeared to be well on track to achieve the MDG Target 3 with net primary enrolment ratio increasing from 96 per cent in 1990 to 99 per cent in 2002, according UNDP figures (though it experienced a decline from 97 per cent in 1990 to 93 per cent in 2001 according to ADB figures), and gross junior secondary enrolment ratio increasing remarkably from 67 per cent in 1990 to 90 per cent in 2002, according to UNDP figures, statistics as such did not reveal the interregional differentials.

Figure 11 China: Education Level of Labour Force by Region



Source: *Zhongguo Xibu Nongcun Quanmian Xiaokang Zhibiao Tixi Yanjiu*, 2006, p. 72, Table 5-1.

The western farming region in general suffers from the problem of shorter schooling years and hence the relatively high percentage of illiteracy and semi-illiteracy in total labour force. In the year 2002, 11.7 out of every hundred people in the western region's labour force were illiterate or semi-illiterate, those with only primary education constituted 36.53 per cent, lower secondary 42.48 per cent, upper secondary 7.39 per cent, middle tertiary (*zhongzhuan*) 1.57 per cent, higher tertiary (*dazhuan*) and above 0.33 per cent. The illiteracy and semi-illiteracy rate of the western region was 7.18 percentage points higher than that of the eastern region, 5.51 percentage points higher than that of the central region and 4.37 percentage points higher than the national average. The proportion of labour in the western region with only primary education was 9.06 percentage points higher than that in the eastern region, 8.89 percentage points higher than that in the central region and 6.11 percentage points higher than the national average. The proportion with lower secondary level was 12.67 percentage points lower than that in the eastern region, 11 percentage points lower than that in the central region and 8.1 percentage points lower than the national average. That with higher secondary level was 4.15 percentage points lower than that in the eastern region, 2.93 percentage points lower than that in the central region and 2.45 percentage points lower than the national average. That with medium tertiary level was 0.92 percentage point lower than that in the eastern region, 0.34 percentage point lower than that in the central region and 0.45 percentage point lower than the national average. That with higher tertiary (university) level or above was 0.4 percentage point lower than that in the eastern region, 0.13 percentage point lower than that in the central region and 0.19 percentage point lower than the national average.

In short, in terms of illiteracy and semi-illiteracy rate and proportion of labour with only primary education level, the western region far exceeded the eastern and central regions, while in terms of the proportion with higher education levels the western region lagged far behind the eastern and central regions. This problem was particularly serious in the ethnic regions like Tibet and Qinghai. The illiterate constituted 58.42 per cent of Tibet's labour force, those with only primary education 41 per cent, those with only primary education or lower 99.42 per cent, far exceeding the national average of 37.75 per cent (*Zhongguo Xibu Nongcun Quanmian Xiaokang Zhibiao Tixi Yanjiu*, 2006, p. 71-72). In fact, relatively high illiteracy has always been a problem for China's non-Han nationalities, and is adversely affecting the development of minority areas. While official figures show that the minorities' adult (age 15 years and above) illiteracy rate had fallen remarkably from 30.68 per cent in 1990 to 14.54 per cent in 2000, the latter was still 5.46 percentage points higher than the national level of 9.08 per cent, and the illiterate adults (10.996 million people) among the minorities constituted 12.64 per cent of the China's

total illiterate adult population. The problem was worse for the female adults of the minorities, with an illiteracy rate of 20.41 per cent, compared to 8.92 per cent for the male. (*Zhongguo Minzu Fazhan Baogao, 2001-2006*, p. 231)

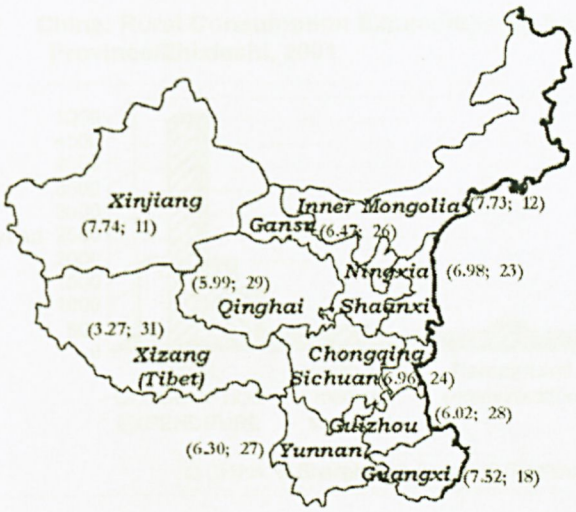
According to the 2000 official figures, only 10.59 per cent (11.065 million) of the total minority population had had higher secondary schooling and above, i.e. 4.08 percentage points lower than the national figure of 14.67 per cent; while 2.49 per cent of the total minority population had had higher tertiary education and above, i.e. 1.06 percentage points lower than the national figure of 3.54 per cent. The above figures actually reflect the basic problem of the backwardness of foundation education among the minority nationalities. Official statistics show that there are 13 minority nationalities with years of schooling less than 5, the lowest being the Dongxiang (a Muslim minority) with just 2.6 years. (*ibid*: 231) Furthermore, with lower level of health service and hygiene and standard of living, the ethnic minority areas of western China also suffer from high risk of local diseases and epidemics like AIDS, high infant mortality rate and lower health. While the national average life expectancy in 2000 was 71.40 years, the official figure was 67.41 in Xinjiang, 66.03 in Qinghai, 65.96 in Guizhou, 65.49 in Yunnan and 64.37 in Tibet, respectively, which ranked the five lowest in life expectancy among the provinces and zizhiqu of China (*ibid.*).

Woo *et al.* (2004) found that China was well on track to achieve the MDG Target 2, with the proportion of undernourished people declining from 16 per cent in 1990 to 9 per cent in 2000, people below minimum dietary energy consumption dropping from 17 per cent in 1990 to 11 per cent in 2000, and underweight children (less than 15 years of age) reducing from 21 per cent in 1990 to 10 per cent in 1998. However, in an evaluation of health equality conducted by the World Health Organization (WHO) on its 191 members in 2000, China was ranked the fourth most unequal country (*Zhongguo Nongcun Jingji Fenxi he Zhengce Yanjiu, 2003-2006*, p. 203). The inequality in terms of public goods such as health services mainly lies in the urban-rural gap, with the level of public goods for the rural population declining alarmingly during the past two decades not only in relative terms but in many cases also in the absolute.

Figure 11 China: Illiteracy in Ethnic Zizhiqu and Multiethnic Provinces, 2000 (Illiteracy rate; National ranking of illiteracy rate)

Source: *Zhongguo Minzu Fazhan Baogao, 2001-2006*, p. 230, Table 16 (original source: *Zhongguo Renkou Wenhua Suzhi Baogao*, 2004).

Figure 12 China: Average Education Level in Ethnic Zizhiqu and Multiethnic Provinces, 2000 (Schooling years; National ranking of education level)



Source: *Zhongguo Minzu Fazhan Baogao, 2001-2006*, p. 231, Table 17 (original source: *Zhongguo Renkou Wenhua Suzhi Baogao*, 2004).

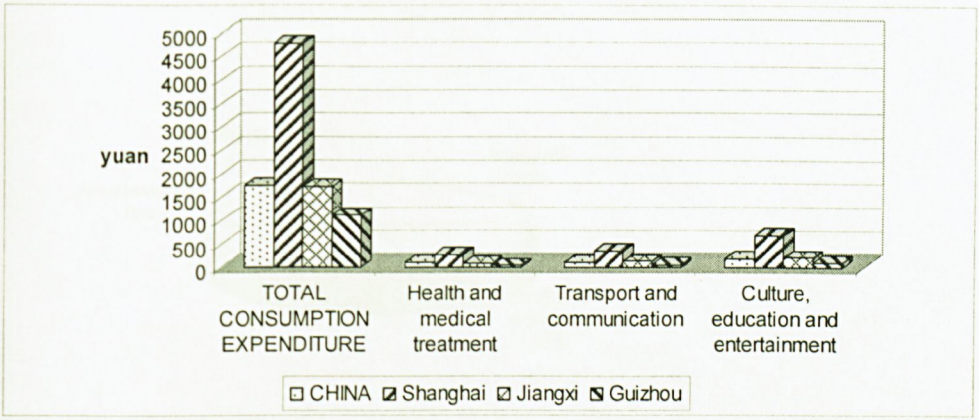
Woo *et al.* (2004) also found that China appeared to be well on track to achieve the MDG Target 6, with maternal mortality (per 100000 live births) declining from 88.9 in 1990 to 39 in 2001 according to ADB figures or from 89 in 1990 to 50 in 2001 according to UNDP figures, while the proportion of births attended by skilled health workers in hospital births increased from 50.6 per cent in 1990 to 89.0 per cent in 2001 according to ADB figures or from 51 per cent in 1990 to 76 per cent in 2001 according to UNDP figures. China also seemed to be well on track to achieve the MDG Target 5 with under-5 mortality rate (per 100000 live births) declining from 88.9 in 1990 to 39 in 2001 according to ADB figures or 61 in 1990 to 30 in 2001 according to UNDP figures, and infant mortality rate (per 1000 live births) also dropping from 38 in 1990 to 31 in 2001 according to ADB figures or from 50 in 1990 to 30 in 2001 according to UNDP figures.

However, from the regional perspective, maternal death during pregnancy/delivery in western China is higher than 200 per 100000, four times above national urban average and more than double the national rural average. It was reported that in 1998 maternal death during pregnancy/delivery in Tibet was 431.6 per 100000, Guizhou 191.1, Qinghai 190.6, Xinjiang 191.7 and in 2004 the figure for Gansu was 79.47 per 100000, far higher than the national average of 51 per 100000. (Nie and Yang, 2006: 301)

Figure 13 shows the astounding gap in consumption expenditures in the rural areas between Shanghai, Jiangxi and Guizhou in 2001. It can be seen that Shanghai's expenditure per capita on health and medical treatment was 3.66 times Jiangxi's, and 8.59 times that of Guizhou. The severe interregional disparity in terms of the consumption of public goods seems to support the popular "four worlds of China" theory – that Beijing and Shanghai being on a par with the advanced countries, the three provinces in the northeast (Liaoning, Jilin, Heilongjiang) and coastal provinces in the southeast being equivalent to the transition countries of Eastern Europe, central western provinces being slightly better than the developing countries in general, and some western provinces being slightly worse than developing countries but stronger than the

underdeveloped countries (*Zhongguo Nongcun Jingji Fenxi he Zhengce Yanjiu, 2003-2006*, p. 223).

Figure 13 China: Rural Consumption Expenditure by Selected Province/Zhixiashi, 2001



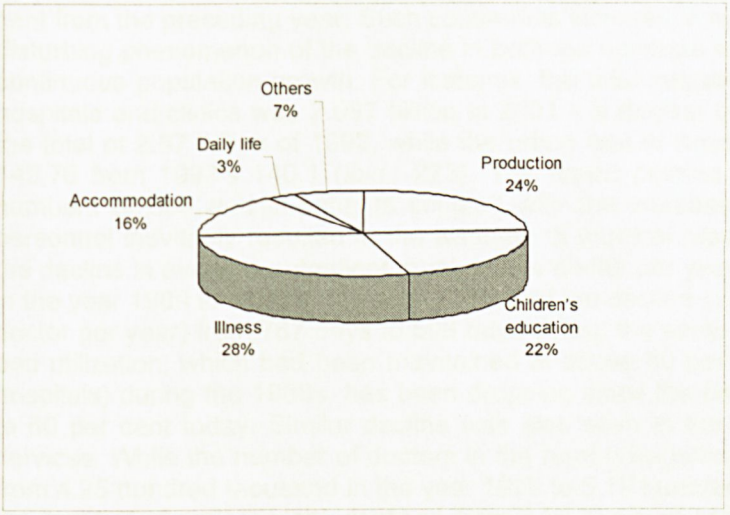
Source: *Zhongguo Nongcun Jingji Fenxi he Zhengce Yanjiu (2003-2006)*, p. 223, Table 11 (data from *Zhongguo Nongcun Zhuhu Diaocha Nianjian 2002*).

In terms of medical costs, Nie and Yang (2006: 290-291) gave the average hospitalization cost per peasant as 2236 yuan according to the 2003 Ministry of Health figures while the net income per capita of peasants was just 2622 yuan. This means that once hospitalized, a peasant's medical expenses would be almost equivalent to his/her annual income. A severe illness would cost on average a peasant's total income of 3 to 4 years. As a result, in the poor mountainous areas of western China, as high as 72 per cent of peasants who are ill are not seeking formal medical help and 89 per cent of peasants who should be hospitalized are not hospitalized (*ibid.*, 291). A government survey conducted in 2004 showed that the major reason for peasants' indebtedness was illness (Figure 14).

As China's government expenditure on health mainly depends on local, not central, government finance – e.g. out of a total of 48.972 billion yuan of national health expenditure in 2000, only 1.5 per cent (7.32 hundred million yuan) was financed by the central government, while the other 98.5 per cent (48.24 billion yuan) came from the local governments – the level of provincial health expenditure per capita is inevitably determined by the provincial financial strength which is in turn tied to the level of provincial GDP per capita. In terms of hospital beds per thousand population, Shanghai (4.33) was the best in 1982 at the beginning of economic reform, while Guangxi (1.39) was the worst – Shanghai's figure being 3.1 times that of Guangxi. By 2001 Beijing (6.28) was the best, while Guizhou (1.51) was the worst – Beijing's figure being 4.2 times that of Guizhou. Such disparity is apparently a reflection of the increasing interprovincial gap in economic strength. For instance, while the national GDP per capita was 1376 yuan in 1995, the figure was 1846 in the eastern region, 1115 in the central region and 989 in the western region – that of the eastern region being 1.65 times that of the central region and 1.87 times that of the western region. By the end of 2003, while the national GDP per capita was 9136 yuan, the figure was 16272 in the eastern region, 7787 in the central region and 6207 in the western region – that of the eastern region being 2.09 times that of the central region and 2.62 times that of the western region. (*Zhongguo Nongcun Jingji Fenxi he Zhengce Yanjiu, 2003-2006*, p. 222) It is so apparent that

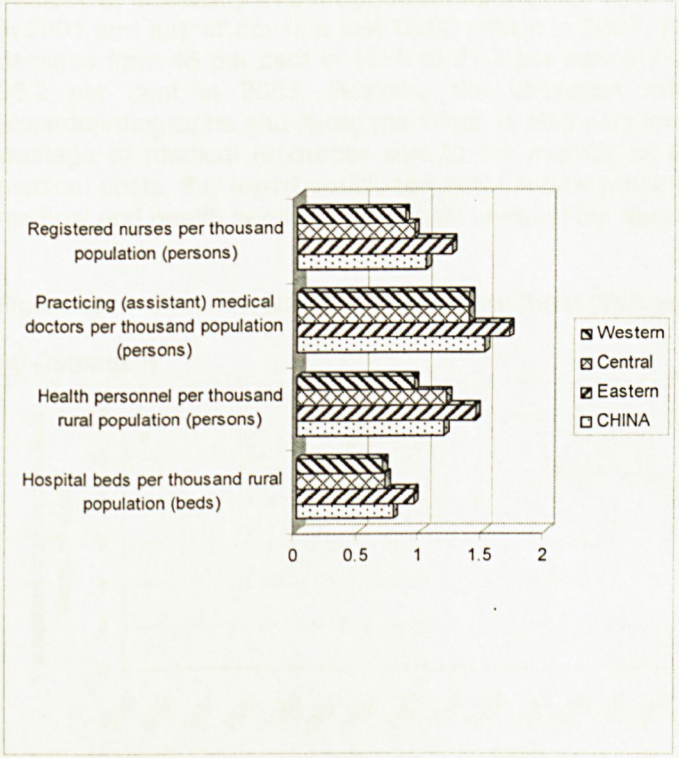
interregional economic inequality is getting worse, and one of the most obvious manifestations of this is the disparity of the provision of health services.

Figure 14 China: Reasons for Peasants' Indebtedness



Source: Han and Luo (2005), cited in Nie and Yang (2006: 292), Table 7-6.

Figure 15 China: Healthcare by Region, 2004

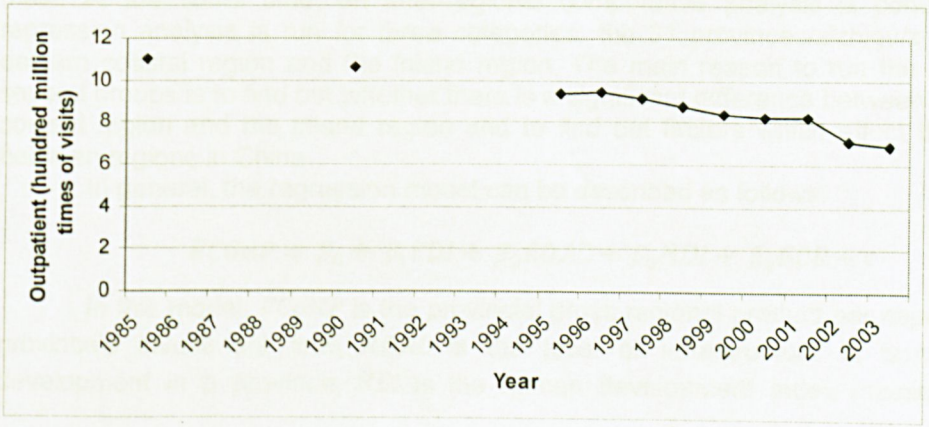


Source: Nie and Yang (2006: 287-288), Tables 7-1, 7-2.

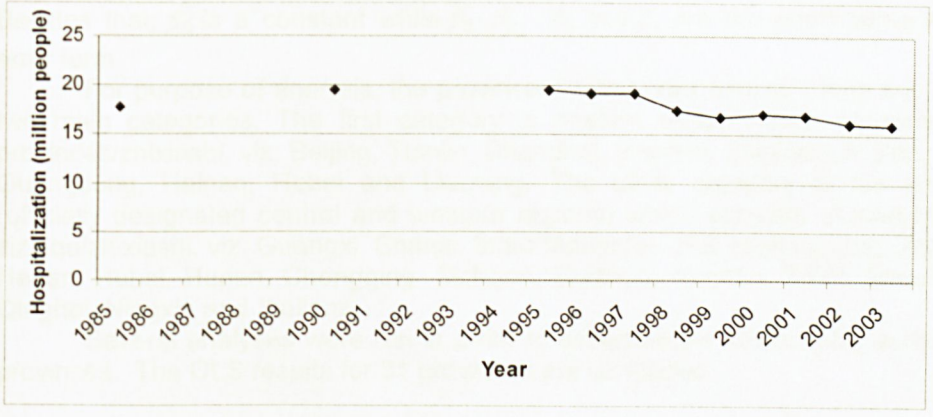
The *Zhongguo Nongcun Jingji Fenxi he Zhengce Yanjiu (2003-2006)* gave the outpatient medical fee per capita of government general hospitals as 108.2 yuan in 2003, an increase of 8.6 per cent from the preceding year, and inpatient fee per capita as 3910.7 yuan (i.e. 1.49 times net income per capita of rural households, and 46.16 per cent of the disposable income per capita of urban households) – an increase of 8.7 per cent from the preceding year. Such continuous increase in medical costs gave rise to the disturbing phenomenon of the decline in both the numbers of out- and in-patients amidst continuous population growth. For instance, the total outpatient number of the country's hospitals and clinics was 2.087 billion in 2001 – a decline by 4.83 hundred million from the total of 2.57 billion of 1992, while the urban rate of illness per fortnight increased to 149.76 from 1993's 140.1 (*ibid.*: 223). The report pointed out that the decline in the numbers of out- and in-patients coupled with the increase in the number of medical personnel inevitably resulted in the wastage of medical resources. This can be seen in the decline in average outpatient number (per doctor per year) from 1652 (times of visits) in the year 1989 to 1180 in the year 2001, and the decline in average hospitalization (per doctor per year) from 767 days to 509 days during the same period. The rate of hospital bed utilization, which had been maintained at above 80 per cent (national figure, for all hospitals) during the 1980s, has been dropping since the beginning of the 1990s, down to 60 per cent today. Similar decline was also seen in the rural (below county) health services. While the number of doctors in the rural (village/town) hospitals was increased from 4.25 hundred thousand in the year 1995 to 5.19 hundred thousand in the year 2001, the number of patient visits declined from 9.38 hundred million to 8.24 hundred million during the same period (see Figure 16). Taking the annual number of working days as 300, the daily number of outpatient service per doctor thus dropped from 7.36 to 5.29 over the period. On the other hand, while the number of hospital beds has increased, the number of inpatients has dropped tremendously, from 19.6 million in 1995 to 17 million in 2001 and further down to just 16.08 million in 2003. The rate of hospital bed utilization declined from 46 per cent in 1985 to 31.3 per cent in 2001, though increased slightly to 36.2 per cent in 2003. Besides, the utilization rate of medical equipments like electrocardiographs and X-ray machines is also very low. With such underutilization and wastage of medical resources due to the inability of people with illness to afford the medical costs, the report concluded that China's present market-transformed system of medical and health services is not only unequal but also low in efficiency.

Figure 16 China: Healthcare Utilization in Rural (Village/Town) Hospitals

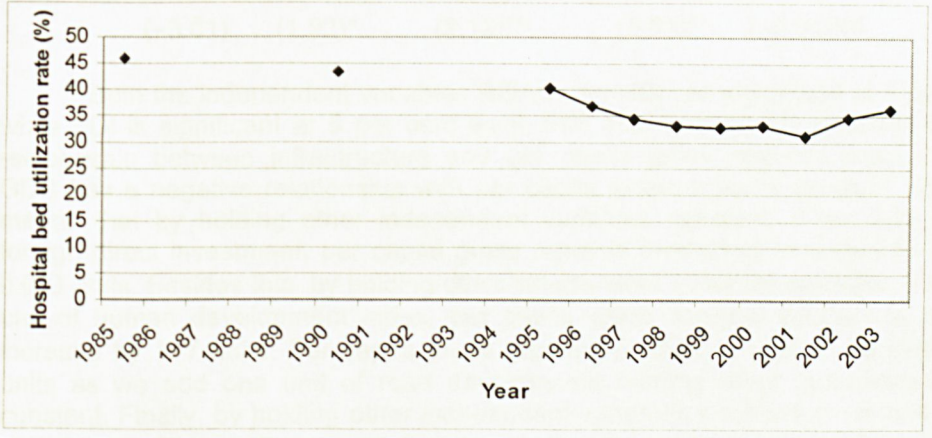
(a) Outpatient



(b) Hospitalization



(c) Hospital bed utilization



Source: *Zhongguo Nongcun Jingji Fenxi he Zhengce Yanjiu (2003-2006)*, p. 224, Table 12 (data from *Zhongguo Weisheng Tongji Nianjian 2004*).

Analysis

Regression analysis[11] is used to figure out which factor affects regional disparity most. At the same time, an inter-regional comparative analysis is conducted. The regression analysis is run for three categories: the 31 provinces/zizhiqu/zhixiashi, the eastern coastal region and the inland region. The main reason to run the analysis for several groups is to find out whether there is a significant difference between the eastern coastal region and the inland region and to find out factors which affect the disparity between regions in China.

In general, the regression model can be described as follows:

$$PCGRP = \beta_0 + \beta_1 FDI + \beta_2 ROAD + \beta_3 HDI + \beta_4 GDR + \varepsilon$$

In this model, $PCGRP$ is the provincial gross regional product per capita, FDI is a province's investment flow, $ROAD$ is the level of infrastructure in terms of road development in a province, HDI is the human development index measured by life

expectancy, literacy rate and income per capita, while GDR is the gross dependency rate. Besides that, β_0 is a constant while β_1 ,β_2, β_3 and β_4 are the coefficients and ε is an error term.

For purpose of analysis, the provinces/zizhiqu/zhixiashi of China are divided into two main categories. The first category is eastern region which consists of eleven provinces/zhixiashi, viz. Beijing, Tianjin, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Hainan, Hebei and Liaoning. The other category is the inland region (officially designated central and western regions) which consists of twenty provinces/ zizhiqu/zhixiashi, viz. Guangxi, Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, Hunan, Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang.

Several analyses were run in order to ascertain the relationship among different provinces. The OLS results for 31 provinces are as follows:

$$PCGRP = -832.97 + 0.0134FDI + 0.3805ROAD + 127.0HDI - 3.0236GDR \quad - (1)$$

(–3.61) (1.92)* (2.12)** (5.61)** (–0.0163)

Both the independent variables ROAD and HDI are significant at 1 per cent level while FDI is significant at 5 per cent level. FDI, HDI and ROAD reflected the positive relationship between infrastructure and per capita gross regional product. However, GDR has a negative relationship with per capita gross regional product. This basically means that by holding other independent variables constant, if we add one unit of foreign direct investment, per capita gross regional product is expected to increase by 0.013 units. Besides this, by holding other independent variables constant, if we add one unit of human development index, per capita gross regional product is expected to increase by 127 units. Per capita gross regional product is said to be increased 0.38 units as we add one unit of road development holding other independent variables constant. Finally, by holding other independent variables constant, if we add one unit of gross dependency ratio, per capita gross regional product is expected to drop by 3.02 units.

The results show the importance of the open door policy in attracting foreign capital and technology, and the role played by foreign investment as the engine of China's growth processes. Besides that, human development index (HDI) is one of the important variables to determine per capita gross regional product in China. As defined by the UNDP Human Development Reports (2005), the concept of human development refers to the expansion of people's capabilities and value of lives. It views people as both objects and subjects of development. On the other hand, definition of the capabilities includes the capacity to live a long and healthy life, the ability to acquire education, culture, and technology and share the benefits of social progress and also the ability to live a life free of poverty with adequate living standards. HDI is the weighted index to measure a society's achievements. HDI measures life expectancy, level of education (measured by a combination of literacy rates and combined primary, secondary, and tertiary school enrollment ratios) and the level of economic development (measured by GDP per capita). For that the independent variable of illiteracy rate in China is not treated as an individual variable in this analysis. This is mainly because the adult literacy rate is one of the elements in HDI and we would like to avoid the problem of multicollinearity in this analysis.

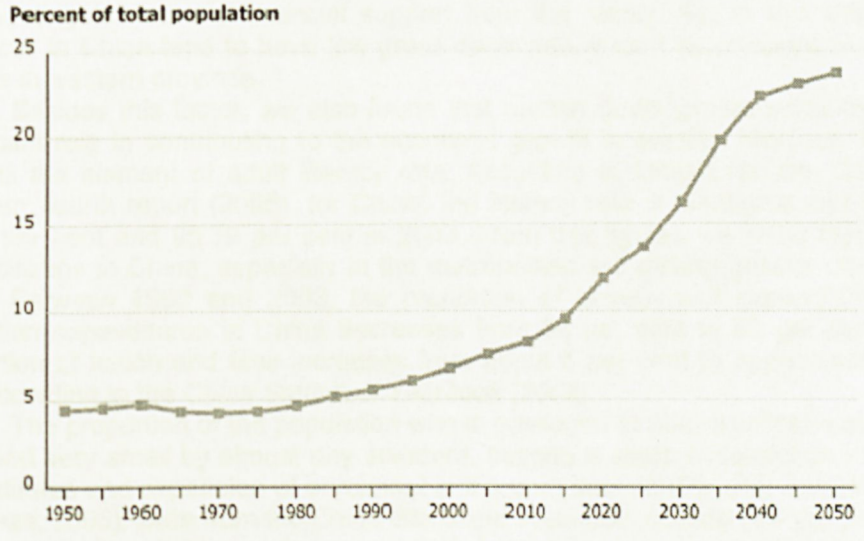
On the other hand, development of infrastructure such as road development and telecommunication play their roles as well. In this case, a well-planned road

development helps a lot in boosting the regional economy. Foreign investment can easily flow into the whole country if and only if the road infrastructure is well developed. The improvement of road development is not only concentrated in eastern regions, but also in the western regions as well. Building of the Qinghai-Tibet railway has opened up the west to the rest of China and has successfully attracted about 6 million people to travel to the west.[12] On the other hand, the tourism sector has been boosted up with the opening of Qinghai-Tibet railway according to the autonomous regional tourism bureau. Tourism has brought in a big amount of revenue to the government of Tibet. The revenue from the tourism has surged about 75 per cent annually to 4.8 billion yuan in 2007. Furthermore, according to the tourism bureau, the revenue from tourism is predicted to keep on increase for Tibet in the coming years.

Finally we would like to discuss about the effect of gross dependency ratio towards the nation's growth. We know that the urban cities are the centre point of trade, business and commerce in the country. Most of the younger generation prefers to earn a living in the cities as there are better working opportunities available. Thus, the ratio of dependency is lower in the city compare to the rural areas. If the gross dependency ratio increases, it will definitely threaten the nation's balanced economic growth. Provinces with high gross dependency ratio tend to grow slower as the burden is huge. This is one of the main factors which led to regional disparity in China.

According to the figures from *Global Human Development Report* 1999, the number of citizens above the age of 60 will increase from the current 147 million to 174 million in 2010, representing about one-eighth of the total population at that time. Surprisingly, the number is expected to reach 243 million, accounting for one-sixth in 2020. The graph below shows the percentage of citizens above the age of 65 in China from 1950 to 2050. There is a drastic increase in estimation from 2015 to 2040. For over these 10 decades, the total percentage of citizens (aged 65 and above) is predicted to increase from 5 per cent to almost 25 per cent (Population Reference Bureau, Jan 2006).

Figure 17 Total Percentage of Citizens (Aged 65 and Above) in China, 1950-2050



Source: World Population Prospects – 2004 Revision (2005), cited in Toshiko Kaneda (2006), "China's Concern Over Population Aging and Health" (June).
<*http://www.prb.org/Articles/2006/ChinasConcernOverPopulationAgingandHealth.aspx*>

Affecting the dependency rate, an ageing issue might bring to some negative impacts on economic growths in China. Due to the chronic health problems which become more common in old age, China's ageing population aging has led to an increase in the country's prevalence of chronic disease and disability, creating a greater need for long-term care. Chronic diseases accounted for almost 80 per cent of all deaths in China in 2005, with major culprits being cardiovascular disease, cancer, and chronic respiratory diseases.[13] Besides that, the rate of increase in health care costs has already exceeded the growth of national economy and individual earnings.[14] Hence, China's government, especially local government should have some proper policies to ensure continuous benefits and aids to this group of citizens.

Besides that for 31 provinces/zizhiqu/zhixiashi, regression was also run for the eastern, coastal region separately. The OLS results for the eastern, coastal region are as follows:

$$PCGRP = -204.5 + 2.6676FDI + 0.1070ROAD + 262.54HDI - 287.50GDR \qquad -(2)$$

$$(-3.80) \quad (0.64)^{*} \quad (0.617)^{*} \quad (5.032)^{**} \quad (-0.815)^{*}$$

Besides FDI and ROAD (both significant at 5 per cent level), the results show that GDR (at 5 per cent level) and HDI (at 1 per cent level) also have a significant influence over per capita gross regional product. Hence, there must be some reasons which cause this phenomenon to occur. First of all, we would like to mention that more and more people tend to get a job at the metropolitans or big cities. In addition, basic infrastructure in main cities is normally fully well-established such as public transports or development of roads. Besides the pull factors, there are also push factors in villages or small towns as well, and more and more youngsters chose to leave their native village or small towns. As a result, only elderly and young children stay back in their villages. At the same time, we also consider elderly and children as a dependent element to local government because they are non-productive. As for the elderly, although they have contributed to society when they were young their children are still in the stage where they need guidance and financial support from the family. So, in this case, eastern provinces in China tend to have low gross dependency ratio as compare to some rural regions in western province.

Besides this factor, we also found that human development index (HDI) play a significant role in contributing to the economic growth in eastern province. First of all, there is the element of adult literacy rate. According to United Nations Development Program, fourth report (2005), for China, the literacy rate in Shanghai and Beijing are 94.12 per cent and 95.39 per cent in 2003. From this figures we know that more and more citizens in China, especially in the metropolitan are getting greater opportunity to study. Between 1992 and 2003, the proportion of government expenditures in total education expenditures in China decreases from 84 per cent to 62 per cent, and the proportion of tuition and fees increases from about 5 per cent to approximately 18 per cent according to the *China Statistical Yearbook (2005)*.

The proportion of the population who is privileged to attend college has been and remained very small by almost any standard, despite a sharp acceleration of schooling expenditures and expansion of enrolment in the past decade (Fleisher and Wang, 2005; Heckman, 2005). Data from the *China Statistical Yearbook* indicate that the proportion of college graduates shows an increase trend, from 0.6 per cent in 1982 raises to 2 per cent in 1995 and further increases to 5.2 per cent in 2003. From the fact above, we

might conclude that those who able to proceed their studies to tertiary level in China normally have to be self-supportive especially in the financial aspect.

One important features of China's FDI inflow is that they are mostly concentrated in the eastern, coastal region. Table 1 shows that about 85 per cent of total FDI were received by the eastern, coastal region. In contrast, the inland provinces (central and western regions) received only about 14 per cent of FDI inflow.

Table 1 China: Regional Differences in Export Dependence, Foreign Direct Investment

Item \ Region	Year	National Total	Eastern (Coastal)	Inland	Inland	
					Central	Western
Export dependence (%)^	*2000*	21.22	33.37	4.93	4.80	5.13
	2003	26.76	41.77	5.61	5.50	5.77
	2004	30.08	47.14	6.16	6.11	6.23
Share of total foreign direct investment (%)[+]	*2003*	100	84.83	14.12	10.90	3.22

^ Ratio of exports to GDP.

[+] Regional shares of total foreign investment do not add to 100 because they do not include the separate category of "Ministries and Other Departments" (1.05%).

Source: Yeoh (2006: 257), Table 14.16 (computed with data from the *China Statistical Yearbook*, various years).

The figures in Table 1 show that there is a huge gap in terms of FDI between the eastern, coastal region and the inland region of China. Region with large FDI inflows have bigger opportunities to grow faster than other regions. First of all, by attracting more FDI inflows, local governments of the coastal region can develop easier their existing infrastructure, including road and highway development, transportation, pipe water and electricity supply, and telecommunication system.

Road development is one of the vital elements in determining the economic growth of a region. The high accessibility of road in China has directly helped in boosting the local economy. The great improvement in road development not only helped in the manufacturing sector; it also contributes to the development of the tourism sector. At the same time, as tourism sector improved, thousands of working opportunities have been created subsequently. This significant interdependent relationship is an important factor that contributed a lot to local economic growth.

After examining the various factors affecting the eastern, coastal provinces/zhixiashi, below are the results of the OLS analysis for the inland region (officially designated central and western regions):

$$PCGRP = 610.16 + 13.96FDI + 0.1066ROAD + 126.22HDI - 179.96GDR \qquad -(3)$$

$$(0.697) \quad (1.87) \qquad (1.18)^{**} \qquad (1.35) \qquad (-2.52)^{**}$$

The FDI inflow[15] is aimed at occupying the local market, which is influenced by the size of the GDP. In recent years, the GDP of western provinces/zizhiqu has experienced higher growth than what is in the past due to the Western Regional Development (*xibu dakaifa*) strategy, which has, in turn, gradually improved the

investment environment such as infrastructure. The result reveals that the contribution by FDI is not really significant to the total GDP of the region. In fact, the eastern, coastal region enjoys a rapid growth with the recovery of national economy. As compared, the western region takes more times and efforts to expand its economy and the market capacity. Since the implementation of the open door policy, the focus of reform and development has been on the eastern, coastal region. The issue of widening regional gap we witness nowadays in China is mainly a result of this strategy. Western region is lagging further and further behind the eastern region. In addition, the public intervention to attract FDI may be justified in situations where there are additional or indirect benefits that the market alone could not yet deliver – technology transfer, bringing in skilled labour, fiscal agreements, and so on. Such incentives could be a decisive element in the final choice of investment locations. However, they will face the risk of corruption and market distortions if proper management has not been executed.

However, the fact is that the sectoral and locational distribution of FDI is very uneven. For instance, the majority of FDI in China is located in four coastal provinces which are Guangdong, Jiangsu, Fujian, and Shanghai. In addition, most of the rest of the FDI is located in other coastal provinces. So, the balance of the FDI will only flow into other regions after the eastern coastal region has been fully surged with FDI. Due to this problem, most of the FDI is mainly enjoyed by the eastern coastal region and the vast areas of China have not enjoyed the benefits from FDI. This is the main reason why in late 1999, China embarked upon an ambitious campaign of *xibu dakaifa*. However, the "Develop the West" campaign is said to be too ambitious to the government of China if we compare it with the Special Economic Zones (SEZs) projects. This is mainly because most of the coastal provinces have their inherent advantages in attracting the inflow of FDI. As a comparison, the "Develop the West" program is a giant challenge to the government of China.

Despite that, human capital is another important factor in contributing to FDI in western region. Low wages combine with a relatively educated and stable supply of labor are the key elements contribute to the human capital. Normally, a basic level of development is optimal as it provides a steady stream of healthy and engaged labours. Furthermore, to foreign investors, low wages are affordable and sounds cost advantage.

Apart from these two factors, local infrastructure plays a vital role in contributing to attract FDI as well. Infrastructure which includes transportation through viable road systems and waterways combine with the well-constructed factories and other facilities create the necessary links for smooth transfer of products between regions. The imports from other counties or regions might not able to be easily accessed if the local infrastructure is not well equipped. In fact, even if a county is geographically near, it is still quite hard to reach if the transportation system is not implemented completely. If all of the obstacles above can be solved, the vision of China's government to develop western region is achievable as more inflows of FDI is injected into the western region.

Apart from FDI, human development index (HDI) is another independent factor contributing towards economic growth for western region. China has made a remarkable progress in human development since reformation and liberalization that began in the late 1970s. Its HDI ranking has risen continuously over the past 20 years, to 85th in 2003 among 177 countries (*China Human Development Report*, 2005, p1). Nevertheless, China remains to be affected by imbalances in development most notably between urban and rural areas, between regions, between gender, and between different population groups.

One of the factors for the growing of income inequality between the urban and rural areas is the widening gap in human development especially since 1997. Human

development differs from economic development. Human development emphasizes on outcomes of development on human beings while the economic development recognized the wealth of a society and its economic growth, and is measured by GDP.

Unfortunately, a significant disparities in human development existed between urban and rural areas in China due to uneven levels of economic development. The large disparity in life expectancy and health is one of the concerns between urban and rural areas. The average life expectancy calculated on the basis of the 2000 national census is 75.2 years for urban residents and 69.6 years for rural residents, almost a difference of almost six years (*China Human Development Report* 2005, p9).

The issue of the regional disparity between eastern coastal region and western region is mainly due to the size of land in western region. From the geographical aspect, western region covers almost half of the country's land. In addition, most of the areas in western region are barren and it is quite hard to develop. Furthermore, the problem of water scarcity causes this region less developed. Most of the water resources are greatly depending on the local climate. (Huang et al, 2002). To make things even worse is the fact that severe wind erosion was a constant occurrence in the region. In fact, eroded areas in the western region are estimated to make up of 80 per cent of the country's total eroded land. In addition, the resulting dust-laden winds can worsen environmental conditions thousand of kilometers or more downwind. (Peng, 1999).

Apart from the disparities in life expectancy and health, the western region also suffered from a number of problems in education, including high drop-out rates. China's educational development strategy has concentrated on western region has failed to meet targets on youth literacy or on compulsory education. One of the provinces or autonomous regions with the largest populations that had failed to meet these two basic goals in 2002 is Tibet.

Most of these graduates are absorbed by the municipalities of Beijing, Shanghai, and Tianjin, along with the provinces of Zhejiang, Jiangsu, Liaoning, and Shandong. On the other hand, those who did return to their hometown face bleak job market in western regions. In Ningxia, Qinghai, and Inner Mongolia, the employment rate for new graduates is only between 30 per cent and 50 per cent. [16] Besides the disparities in life expectancy and illiteracy rate, there is a clear significant wealth gap between urban and rural China.

To make *xibu dakaifa* a success, the conservative mind set over the existing political, economic, social and cultural between eastern and western regions has to be re-structured. The government of China also needs a huge fund to run this program. Thus, the investment fund for this western development plan is sought from the international resources such as World Bank, Asia Development Bank and international corporations. As stated by some of the international corporations, the western provinces have the right conditions for foreign investment where western region has abundant natural resources and cheap labor. In addition to financial support for this long-term development effort, the government is also seeking moral and political support (Zheng and Chen, 2007).

Road development is found to affect economic growth in western region of China significantly. Large regional variations still exist in the density and quality of road infrastructure in China. The western region is poorly linked by roads compared to the eastern and coastal regions (Fan and Chan, 2005). There are only 166 and 66 kilometers of roads for every thousand square kilometers of land in southwest and northwest China, respectively, compared to more than 460 kilometers per thousand square kilometers of land in the eastern and coastal regions in 2002.

Before the reform start in China, road projects were funded predominantly by domestic sources in China. These sources included government appropriations, profits

from state owned enterprises (SOEs), and local government authorities. The central government was accountable for the development of national roads, while the provincial and local governments were responsible for the provincial and local road networks (Démurger 2001). Under the centrally planned system, provincial and local governments typically received funds for infrastructure construction from the central government.

However, a study from Fan and Chan (2005) shows that the highway and expressway investments are less profitable in western regions in China. As fewer cars use highways and expressways, local governments are unable to get sufficient revenue from tolls to pay for road maintenance and to repay both the principal and interest.

Table 2 China: Highway Funding by Sources

Year	Central Government			Local Government				Foreign
	Total	(1)	(2)	Total	(3)	(4)	(5)	Capital
(per cent)								
1998	7.1	6.6	0.5	87.8	36.0	5.3	46.5	5.1
1999	6.7	5.9	0.8	89.7	36.3	4.9	48.6	3.6
2000	7.3	6.6	0.7	88.8	36.0	4.4	48.5	3.9
2001	12.0	8.9	3.1	85.1	40.7	3.6	40.9	2.9
Average	8.3	7.0	1.3	87.9	37.3	4.6	46.1	3.8

Note: (1) ministry special fund; (2) central fiscal special fund; (3) domestic loans; (4) local fiscal funds; (5) self raised funds and others.
Source: Data from China highway transport statistics collection (1998-2000), cited in Fan and Chan (2005:21), Table 3.4.

This scenario is clearly noticeable in the table above. Table 2 reveals the breakdown in highway investments by source of funds. Local governments contributed the most to highway investments (88 per cent), followed by the central government (8.3 per cent) and foreign capital (3.8 per cent) between 1998 and 2001. From the figures shown, domestic loans and self-raised funds by local government have made up a big portion of share in the total investments of highway (Fan and Chan, 2005).

From the statistics above, local government is found to contribute the most to the investments in highway. However, a widening regional inequality will be created as the greater autonomy given to local governments. This is mainly because the capacity to raise funds to finance projects depends on the revenue of local government and the ability of local governments to negotiate higher contributions from the central government (Démurger 1999). As a result, the share of highway investment in eastern China declines from 54.8 per cent in 1998 to 45.2 per cent in 2001, whereas the corresponding shares in central and western China increases from 45.1 per cent to 54.9 per cent which is shown in the Table 3 below (Fan and Chan, 2005, p22).

Table 3 Regional Shares of Highway Investments (per cent)

Year	East	Centre	West
1998	54.8	23.9	21.2
1999	52.1	25.2	22.6
2000	49.2	26.8	24.0
2001	45.2	30.6	24.3
Average	50.0	26.8	23.1

Source: Data from China highway transport statistics collection (1998-2000), cited in Fan and Chan (2005: 21), Table 3.5

Policy Recommendations

China's spectacular economic growth has benefited its provinces and regions quite unequally. In fact, China has also become one of the countries which have the highest degrees of regional income inequality in the world (Jian *et al.*, 1996). We investigated the determinants of dispersion rates of economic growth and regional disparity. We hypothesized that the regional pattern of the economic growth rate can be understood as a function of several interrelated factors, which includes foreign direct investment, human development index, road development and infrastructure capital and gross dependency rate. In addition, we also discuss about the market reforms, with a major step forward in introducing the program of *xibu dakaifa*.

Our analysis found that uneven inflow of foreign direct investment contributes to regional disparity in China. This is mainly because foreign direct investment is still heavily concentrated in the eastern coastal region, especially in the coastal areas, even though we may notice a slow process of diffusion. Furthermore, foreign investors have played an increasingly important role in the economic reform in China. It was also a large part of China's trading activities with the rest of the world (Sun and Parikh, 2001).

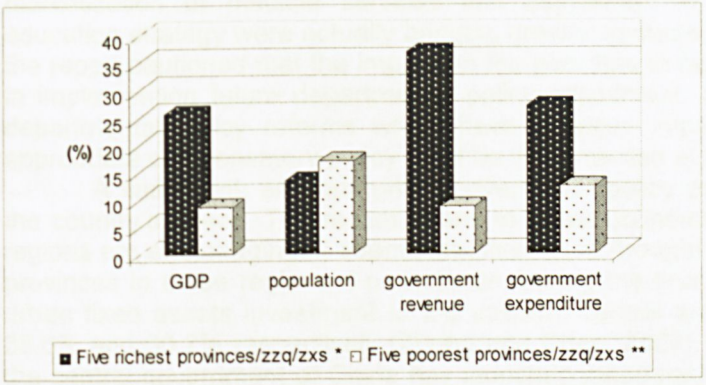
China has heavily invested in building expressways and intercity highways in the recent years. China's economic transformation has been benefited from the road development investments during the 1980s and 1990s. However, the marginal rate of returns will start to decrease as the marginal cost starts to increase as the total investment keep on increasing. From the angle of economics, this is not really cost effective although the marginal rate of returns is still positive (Démurger, 2001; Démurger *et al.*, 2002).

Apart from the above two factors, we noticed the different degree of human development index raises the problem of regional disparity in China as well. If the government of China does not change their policy to address this issue, this problem is going to grow bigger. Thus, promoting social equity should start with human development. Levels of human development in China varied greatly across regions and between rural and urban areas. However, the gaps for economic development and per capita income have widened over the last 20 years. Indeed, the level of human development has risen for the inland region. This increment is still lagging far behind as compared to the eastern coastal region (Heckman, 2005).

Another obvious element to measure the regional disparities in China under human development index is to ensure an adequate funding for basic education and health in all of the rural areas. Most of the poor local governments could not provide good services based on their own tax revenue. For the rural residents who remain in agricultural sector as well as for those who choose to move to cities later on, a good basic education is fundamental. Education is one of the key paths to get rid of poverty. Local governments in inland region have done their part in improving the life expectancy, literacy, and school enrollment through the campaign of *xibu dakaifa*. (*China Human Development Report*, 2005).

Last and not least, gross dependency rate plays an important role in contributing to the regional disparity too. The aging process is speeding up especially in cities as the one-child policy was adopted in the 1970s, and more couples tend to postpone pregnancy or not to have babies at all. The huge elderly population brought various social and economical problems to China. Thus, this fast-growing elderly population is likely to become a burden for China's overall development if efficient measures are not taken in time by government (Jones *et al.*, 2003).

Figure 18 China: Fiscal and Economic Concentration, 2004



provinces, zizhiqu/zhixiashi being rich of poor as measured by GDP per capita
* the provinces of Zhejiang and Guangdong, and the zhixiashi of Beijing, Tianjin and Shanghai.
** the provinces of Guizhou, Gansu, Yunnan and Anhui, and the zizhiqu of Guangxi.

Source: Yeoh (2006: 217), Table 14.3 (computed with data from *China Statistical Yearbook*).

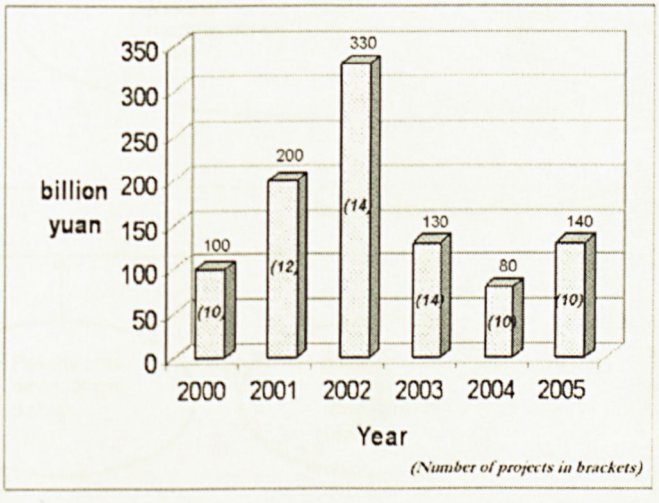
Since mid-1980s, China's government had implemented a series of targeted poverty reduction policies or departmental policies that were having important impact on the poor, to assist the poor regions' socioeconomic development and to help the poor get out of poverty. There were in general mainly 3 types of such policies: 1) developmental poverty reduction policy, targeting the rural poverty areas; 2) social security policy, targeting the poor and week groups in the urban area, which is also selectively implemented in the rural areas; 3) other pro-peasant (*huinong*) policies that have important impact on the poor, which are mostly implemented in the rural area. Two decades of poverty reduction implementation in China shows that, all these different types of poverty reduction policies had important impact on ameliorating the urban and rural conditions of poverty, but different policies were having different impacts on the poor in different regions and at different time. For instance, as pointed out by *Zhongguo Fazhan Baogao 2007*, while developmental approach to poverty reduction was having apparent positive effect on the economic development of the poor regions, but since it targeted regions rather than the poor directly, its effect on poverty reduction declined with the reduction in the poor population. The effect of such approach today is more chiefly to slow down the widening trend of the income gap between the poor regions and the non-poor regions. *ZFB 2007* suggested that developmental approach with more emphasis on the development of human capital could be an important direction in the next stage of such poverty reduction policy in the rural areas. On the other hand, the implementation of social security policy has greatly helped to ameliorate urban poverty, and needs to be adjusted to further extend its coverage. This policy is also becoming more and more important in poverty assistance in the rural areas, targeting those rural poor families without potential for development and those poor people who suffered from illness and other calamities. A future direction for poverty reduction policy adjustment, the report suggested, is to combine a more focused development approach to poverty reduction and appropriate social security. Finally, the report warned, while other pro-peasant policies are not totally targeting the poor, they could be bringing either greater benefit or damage to the poor. For example, the reduction or abolition of agricultural taxes, de-farming and reforestation, and basic education reform (such as the *liang mian yi bu*) had brought greater benefits for the poor and become a major engine for poverty

population reduction in recent years; however, *ZFB 2007* observed that the marketization of medical services and adjustment in the primary and secondary education strategy were actually bringing greater damage to the poor population. Hence, the report cautioned that the impact on the poor has to be given adequate consideration in implementing future departmental policy adjustment, and even if certain necessary departmental policy reforms which have negative impact on the poor is inevitable, appropriate compensatory policy must be implemented at the same time.

A final point: an appropriate government policy plays a vital role in maintaining the country's peace. The recent efforts to boost economic development in the western regions are encouraging. It seems that they have brought to some positive results in the provinces in these regions. For instance, during the first half of 2007, the increases of urban fixed assets investment in the eastern, central and western regions are 22.3%, 35.6% and 30.2% respectively (Zheng and Chen, 2007). One of the main reasons that the central government of China has launched these regional development programs is to ease the dissatisfaction of minority peoples and to relieve development disparities among ethnic groups.

Since the official beginning of the "Western Regional Development" (*xibu dakaifa*) strategy, the State's investments in the western region have been greatly strengthened, including more than 70 major projects such as the Qinghai-Tibet (Qing-Zang) Railway and the transmission of natural gas and electrical power from west to east, involving more than 980 billion yuan. Also experiencing rapid growth was western region's fix capital formation, with an annual average growth rate of 20.5 per cent during the period 2000-2004, being 1.4 percentage points higher than the national average. The rapid development of the western regional economy was reflected in the above 10 per cent economic growth rate of the region during the tenth five-year plan period (2001-2005) which was higher than the national average. In fact, Inner Mongolia topped the country for three consecutive years 2003, 2004 and 2005 with its growth rate of gross regional product of 16.8 per cent, 19.4 per cent and 16.6 per cent for the three years respectively. (*Zhongguo Fazhan Shuzi Ditu*, 2006, p. 225)

Figure 19 Major Projects and Amounts of Investment in China's Western Region since the Implementation of "Western Regional Development" Strategy

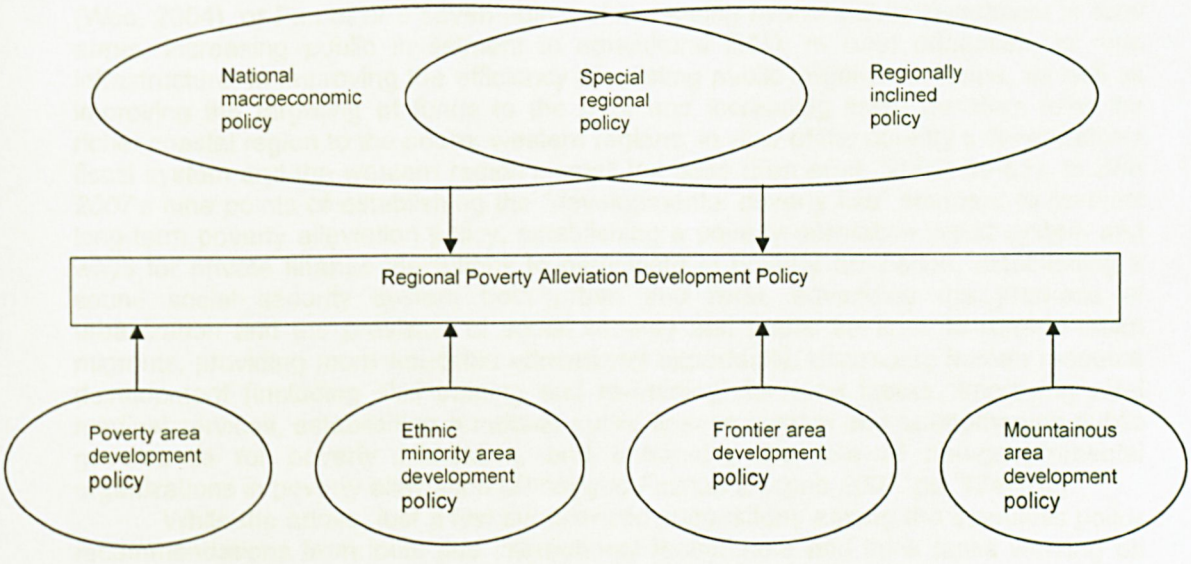


Source: Yeoh (2008a: 13), Table 1.8 (data from *Zhongguo Fazhan Shuzi Ditu*, 2006, p. 225).

The rapid growth of fixed capital formation has led to the fast expansion in the scale of industrial production of the western region and remarkable enhancement of economic benefits. Sichuan, Guangxi, Guizhou and Qinghai in particular had achieved unprecedented high level of industrial benefits and profits. Certain pillar industries and industrial clusters with regional resource advantage and territorial advantage can be seen to be in formation and rapid development in the western region and sub-regions. However, the economic foundations of the western region remain weak. The lack of capital and quality human resource and the locational disadvantage that causes its low degree of openness to the outside world have led to the region's remarkable bottleneck constraint in its basic infrastructure, low level of resource use, irrational industrial structure and low private to public ownership ratio. While experiencing rapid growth during the tenth five-year plan (2001-2005) period, total economic and industrial volumes remained small, compared to the national levels. Furthermore, the region's "boorish" growth pattern has also led to the increasingly obvious resource and environmental constraints. Blind imitation and disorderly competition are also serious problems for the region's specialized advantaged industries, in addition to the lack of coordination and cohesion in resource exploitation. (*ibid.*: 227)

As poverty and inequality constitute one of the most, if not *the* most, critical challenges China faces in her next phase of politico-socioeconomic development, and poverty in China has the properties of being concentrated in the western region and in the ethnic minority areas, ethnoregionalization of poverty inevitably ensues, presenting China not only with economic challenges but also long-term sociopolitical security risks. Furthermore, if poverty could be seen as a multiconcept construct, it is pertinent that all crucial dimensions – regional, ethnic, urban vs rural, environmental, resource exploitation, literacy, health care, employment, industrial structure and economic openness, etc. – of this problem would have to be given due emphasis in any policy response.

Figure 20 China's Regional Poverty Alleviation and Economic Development Policy Framework



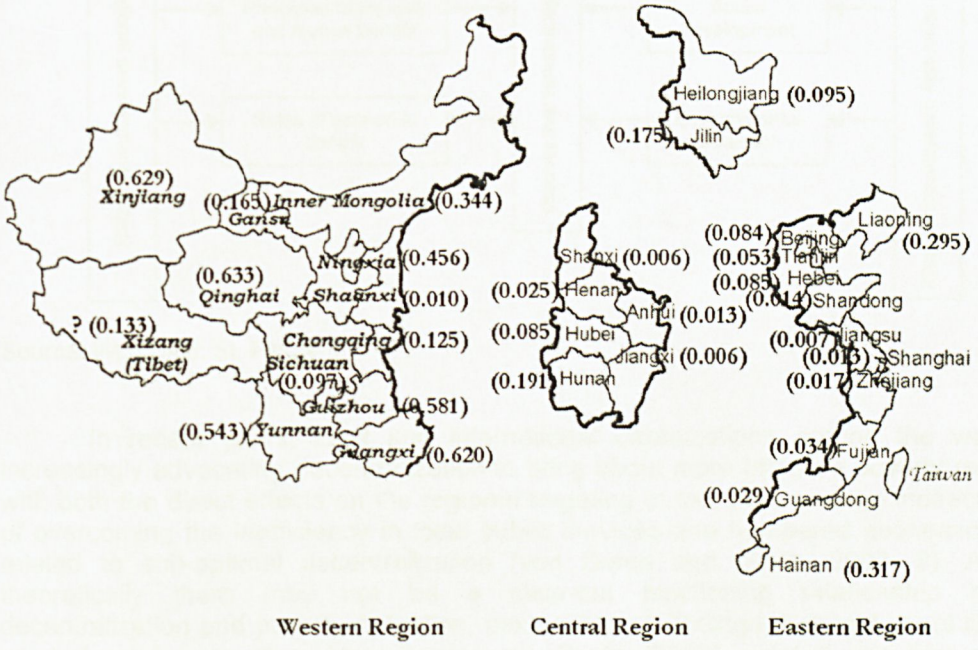
Source: Yeoh (2008b: 194), Figure 8.4, adapted from Wu (2006: 111), Table 4-8 for Sichuan-Yunnan-Tibet ethnic regional economic development.

These dimensions are not isolated, but intricately linked in a complex nexus of causes and effects. Such multidimensional nexus is reflected in what Han (2006) referred to as the "three highs, three lows" economy of China. The "three highs" she referred to are high material consumption, high external demand and high accumulation and investment rate, and the "three lows" are low per capita economic growth, low internal demand and low consumption rate. China's high growth is built upon the foundation of high material consumption, hence, according to her, is unsustainable. For instance, in 2003, with a GDP growth rate of 10.1 per cent, China's cement consumption was 820 million ton, i.e. half of the world's total consumption of cement; her coal consumption was 1.5 billion ton, i.e. one third of the world's total consumption of coal; and her steel consumption was 260 million ton, i.e. one quarter of the world's total consumption of steel. Quite a significant portion of this growth could be attributed to blind investments and low-quality repetitive construction, resulting in product surplus, resource waste, energy shortage and environmental pollution. Furthermore, such extra-high growth rate must to a certain extent have been obtained by sacrificing fairness and equality. Without appropriate governmental macroeconomic management, unconstrained concentration in resource flow towards cities and other advanced regions with high returns to capital has resulted in the sluggish development of rural and other remote areas, leading to the ever-widening urban-rural and interregional development gap. Extra-high economic growth vis-à-vis inadequate purchasing power of the society especially the lower-income group has resulted in the relative shortage in domestic demand and supply-demand imbalance. While the government's macroeconomic management may ensure a soft landing, its effect is more short-term rather than long-term and plays little role in arresting the widening gap between rich and poor and ensuring long-term price stability (*ibid.*: 204-205). The solving of the remaining problems of poverty and inequality, still daunting despite the impressive achievements in the last few decades, in this great nation has duly been the focus of researchers and policymakers, whether the policy suggestions, to give a few examples, be in the form of Woo's four points of implementing programmes that strengthen the three mechanisms of income convergence (i.e. free movement of goods, people and capital), that provide infrastructure, that focus on rural poverty and that mobilize the universities for growth (Woo, 2004), or Fan *et al.*'s seven points of increasing overall public investment in rural areas, increasing public investment in agricultural R&D, in rural education, in rural infrastructure, in improving the efficiency of existing public irrigation systems, as well as improving the targeting of funds to the poor and increasing fiscal transfers from the richer coastal region to the poorer western regions, in view of the country's decentralized fiscal system and the western region's small tax base (Fan *et al.*, 2002: 50-51), or *ZFB 2007*'s nine points of establishing the "developmental poverty line" standard to readjust long-term poverty alleviation policy, establishing a poverty alleviation credit system and ways for private finance institutions to participate in poverty alleviation, establishing a sound social security system both urban and rural, advancing the progress of urbanization and the provision of social security and public services to rural-to-urban migrants, providing more equitable educational opportunity, expanding human resource development (including skill training and re-training) for rural labour, improving rural medical services, establishing a rational public finance system and strengthening public governance for poverty alleviation, and enhancing the role of non-governmental organizations in poverty alleviation (*Zhongguo Fazhan Baogao 2007*, pp. 174-182).

While the above, just a few summarized suggestions among the countless policy recommendations from local and international researchers and think tanks working on poverty alleviation in the world's most populous country, did cover the main foci crucial to China's problems of poverty and inequality, there is still an aspect that needs special

emphasis, i.e. ethnicity, and its related issue of ethnoterritoriality. The fact that China is technically speaking, if one follows the critical mass approach[17], not a multiethnic country, with the majority Han constituting 92 per cent of the population, often obscures the fact that the ethnic minorities are huge in absolute numbers – about 110 million in total, including the 16 million Zhuang, 10 million Manchu, 9 million Hui, 8 million Uygurs, 5 million Mongols and 5 million Tibetans – although they are practically dwarfed almost to invisibility by the sheer size of the Han population.

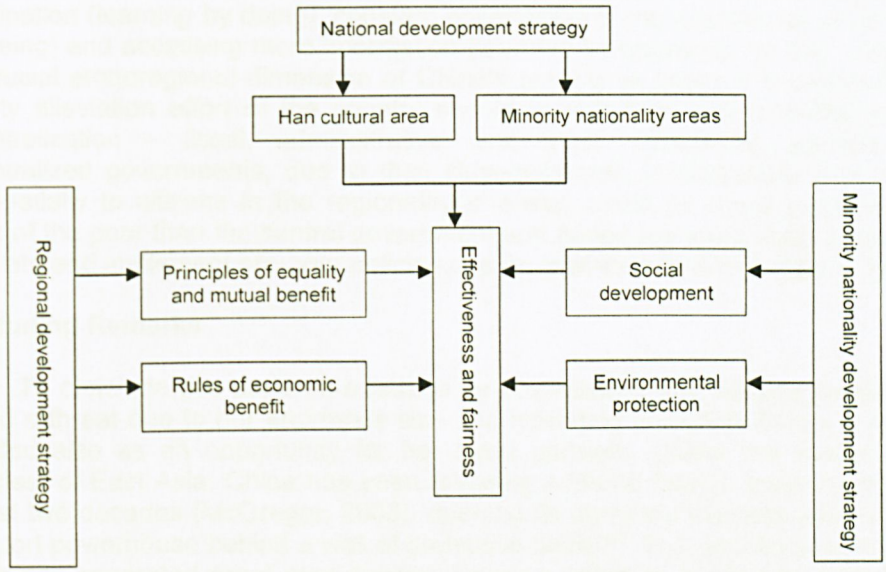
Figure 21 Ethnic Diversity by Province/Zizhiqu/Zhixiashi



Source: Yeoh (2007: 258), Figure 12.12. Computed with data from the 2000 population census. For computation of EFI, with a range of 0–1 from hypothetically complete homogeneity to hypothetically perfect diversity, see Yeoh (2003: 28). EFI for China as a whole is only 0.125, indicating high homogeneity (*ibid.*: 30-32, Table 1).

Although the race-neutral[18] policy of the Chinese State does contain certain elements of affirmative action in favour of the minorities, given the fact that poverty is still highly concentrated in the ethnic minority areas and ethnic regions in western China which are clearly disadvantaged for both historical and geographical (e.g. terrains which are mountainous, desertified, environmentally fragile) reasons, the ethnic aspect of poverty alleviation programmes is evident. The highly remarkable extent of fiscal decentralization that exists in China should be further enhanced to aid the effort at poverty alleviation, especially in the context of the ethnoregional dimension of the poverty problem.

Figure 22 Official View of "Western Regional Development" Strategy as Part of National Development Strategy



Source: Wu (2006: 5), Figure 5.

In recent years, local and international organizations around the world are increasingly advocating decentralization to bring about more effective poverty reduction, with both the direct effects on the regional targeting of transfers and the indirect effects of overcoming the inefficiency in local public services and hampered economic growth related to sub-optimal decentralization (von Braun and Grote, 2000: 2). Although theoretically there may not be a clear-cut functioning relationship between decentralization and poverty reduction, most research findings in recent years definitely pointed to the positive. Von Braun and Grote (2000) pointed out that political, administrative and fiscal decentralizations need to be considered simultaneously, and the sequencing and pace of these three aspects of decentralization seem to play an important role in impacting poverty reduction. While fiscal decentralization shows ambivalent effects for poverty reduction and administrative decentralization alone does not add power and voice to the poor, "political decentralization often benefits the poor, because involving civil society in planning, monitoring and evaluating public programs and policies is crucial to ensure steady progress and that is facilitated in a decentralized system" (*ibid.*: 25-26), or, as Boex *et al.* pointed out in their research report *Fighting Poverty through Fiscal Decentralization* (January 2006: 2), "if the increasingly accepted wisdom that 'all poverty is local' is correct, then decentralization policy and poverty reduction strategies could be closely intertwined and have synergetic positive effects on each other"[19]. Kyei (2000), in his study on the case of Ghana, concluded that the rural poor in Ghana could only benefit with a much stronger commitment from the central government to decentralization, especially in terms of powersharing and financial provision. Vijayanand (2001), in his paper on the Kerala state of India, noted various advantages of decentralization in terms of poverty reduction including the greater reach of resources with earmarking of funds for the disadvantaged groups, less sectoralism in decentralized programmes with greater convergence contributing to the reduction in the

ratchet effect of poverty, greater emphasis on locally appropriate and affordable solutions, greater realism in tackling problems of poverty, improved accountability, etc. while decentralization "affords opportunities to the poor to grow in strength by continuous participation (learning by doing), constant observation of the exercise of power (learning by seeing) and accessing more information (learning by knowing)" (p. 23). Hence, given the crucial ethnoregional dimension of China's poverty problem, it is pertinent that the poverty alleviation effort of the country should benefit from any possible progress in decentralization – fiscal, administrative, and most importantly, political – since decentralized governments, due to their closeness both institutionally (e.g. ethnically) and spatially to citizens in the regional/rural areas, could be more responsive to the needs of the poor than the central government and hence are more likely to successfully formulate and implement pro-poor policies and programmes in these regions and areas.

Concluding Remarks

To conclude this paper, it needs to be emphasized that despite inevitably being viewed a threat due to her enormous size and mounting influence, China is more often regarded also as an opportunity for her trade partners. Unlike the earlier economic "miracles" of East Asia, China has been following a liberal foreign investment regime in the last two decades (McGregor, 2005), opening its domestic markets and "not building an export powerhouse behind a wall of protective tariffs"[20]. The country's rapid economic growth has generated great opportunities for large volumes of imports of both primary and manufactured goods from her regional trade partners. This has served to compensate the latter for their losses of market share in the U.S. and Japan (Weiss, 2005:72). Hence, to a world that is watching her rise with a mix of curiosity, hope and trepidation, the rapidly transforming China remains an enigma:

Is China a threat to the region, a potential hegemon busy establishing an economic power base on which to build an invincible military force? Or is she a large yet insecure country with painful memories of various colonial predators, fearfully aware of the immense technological superiority of the United States military, but intent on international and regional cooperation? Then there is the question of China's economy, and whether the Middle Kingdom will ever be anything more than a middle power.

(Arnott, 2001:70-71)

Against this general backdrop, what this paper has attempted to do could be seen as an examination of the so-called "China threat" from a different perspective, by asking whether the threat to China herself in the post-Cold War world and the oft-cited potential threat posed by China to her neighbours and to the world at large could in fact come from within China herself, engendered by her increasingly volatile interethnic relations owing to her breakneck economic transformation and the accompanying income and wealth disparities. The resultant intensified resource contest may see groups coalesce along ethnolinguistic and ethnoreligious lines and thus further polarized by such divides, aggravated by transnational influences brought about by the selfsame globalization that has ironically contributed to her very economic "miracle" in the first place. The potential threat to China's economic growth and political stability due to any mismanagement in her internal intergroup relations would also pose a threat to the world, in particular the country's Southeast Asian neighbours in her backyard since their economic well-being is now very much tied to China's rise as an economic power and the engine of growth in the region.[21]

As shown earlier in Figure 8, of the 23.65 million rural poor of China in 2005, the eastern region, central region and western region contributed 3.24 million (13.7 per cent), 8.39 million (35.5 per cent) and 12.03 million (50.8 per cent) respectively, with incidence of absolute poverty of the central region and western region being respectively 3.1 times and 6.5 times that of the eastern region. Compare this with the 1993 figures of 19.5 per cent, 31.1 per cent and 49.4 per cent for the eastern region, central region and western region respectively (*Zhongguo Fazhan Baogao 2007*, p. 37), it is obvious that the changes in the regional distribution of the rural population in absolute poverty were mainly reflected in the decline of its proportion in the eastern region, increase of that in the central region, while that in the western region had remained largely unchanged, with the implication that the extent of decline of the number in absolute poverty in the eastern region actually surpassed the national average, that in the central region was obviously below the national average, and that in the western region was the same as the national average (*ibid.*).

There are four characteristics typical of the distribution of poverty population in China:
1. Concentration in the mountainous areas.
2. Concentration in the western region.
3. Concentration in environmentally fragile areas.
4. Concentration in ethnic minority areas.

For instance, out of the 29 million people in absolute poverty in 2003, 15.5 per cent were in the eastern region, 35.5 per cent in the central region, and 49 per cent in the western region. Areas with incidence of poverty less than 1 per cent were all located in the eastern region. Guangxi, Sichuan and Chongqing were the only places in the western region with incidence of poverty between 1 and 5 per cent. Inner Mongolia, Yunnan, Shaanxi, Gansu, Ningxia and Xinjiang were places in the western region with incidence of poverty between 5 and 10 per cent. All areas with incidence of poverty above 10 per cent were in the western region, viz. Guizhou, Tibet and Qinghai. Rural population with income from 637 to 882 yuan[22] per annum are officially classified as the low-income group. In 2003, those in the low-income group totaled 29.46 million just within the poverty counties alone. (Chen, 2006: 175, footnote 1) Combining the rural poverty population and the low-income group, the number in 2003 totaled 85.17 million, of which 40.14 million (47.1 per cent) were in the western region, 31.2 million (36.6 per cent) in the central region and 13.83 million (16.2 per cent) in the eastern region. (*ibid.*: 176, Figure 7-2)

In 2000, of the 592 officially designated poverty counties[23] – including 257 ethnic minority poverty counties – 62 per cent were concentrated in the western region. Of the 32.09 million poor in 2000, more than half were among the ethnic minorities (i.e. non-Han) or in the ethnic minority areas, totaling 17 million people. Not much had changed by 2003, where out of the national figure of 29 million people in poverty, 16.98 million or 58.55 per cent were in the 12 zizhiqu and provinces of the western region. (*Zhongguo Minzu Fazhan Baogao, 2001-2006*: 235) Hence, it is discernable that there is a trend of gradual concentration of the poor towards the western region and the frontier areas, and towards the ethnic minorities. Estimation of the extent of absolute poverty among the ethnic minorities ranges from 40 per cent of the total population as estimated by researchers in China to 60 per cent as estimated by Nicholas Stern of the World Bank. In view of the fact that ethnic minorities only constitute 8.41 per cent of China's total population, that 40 to 60 per cent of China's poor come from them is indeed alarming. (*ibid.*)

One of the most crucial aspects of China's poverty problem hence is the very fact that the dominant component of the rural poor is the ethnic minorities – as mentioned above, out of the 592 poverty counties, 257 (44 per cent) are ethnic minority counties. In the year 2003, among the poor of the 592 poverty counties, 46.7 per cent were in ethnic minority areas, with incidence of poverty of 11.4 per cent that was higher than those of the mountainous areas (10.1 per cent), hilly areas (7.1 per cent), old revolutionary base areas (7.7 per cent) and the plains (7.8 per cent). Eighty per cent of the 4.59 million poor of Guizhou were ethnic minorities, and almost all of the 3.1 million hard-core poor of the province were ethnic minorities. In the mountainous areas of southern Ningxia, 60 per cent of the 520 thousand poor were Hui. Eighty-five per cent of Yunnan's 4.4 million poor and more than 90 per cent of Tibet's 250 thousand poor were also ethnic minorities. (Chen, 2006: 177) In fact, out of the country's 29 million poverty population, 45 per cent or more than 13 million were in the ethnic minority areas. Among the 630 thousand people of 22 ethnic minority groups each with population less than 100 thousand, 394 thousand were in absolute poverty or in the low-income category. (Wu, 2006: 15)

Official figures by end of 2004 showed that ethnic minority areas' rural absolute-poverty population constituted 47.7 per cent of the national total, incidence of poverty was 5 percentage points higher than the national figure, population with low income constituted 46 per cent of the national total, proportion of low-income population in rural population was 9 percentage points higher than the national figure, absolute-poverty population plus low-income population constituted 46.6 per cent of the national total, and the proportion of absolute-poverty plus low-income population in rural population was 14 percentage points higher than the national figure. Almost 80 per cent of China's ethnic minorities are found in the country's western region, especially the rural areas. China's northwest with about 20 different ethnic minorities and total minority population of more than 15 million and southwest with more than 30 ethnic minorities and total minority population of more than 29 million being the country's two areas with the most complex ethnic composition and the largest number of and most concentrated ethnic minorities, the geographical correlation of ethnic minority distribution (largely populating the frontier areas) and poverty population distribution is unmistakable, hence reflecting the composite phenomenon made up of rural poverty, geographical poverty, ethnic poverty and frontier poverty. (Nie and Yang, 2006: 153)

As poverty and inequality constitute one of the most, if not *the* most, critical challenges China faces in her next phase of politico-socioeconomic development, and as has been noted earlier, poverty in China has the properties of being concentrated in the western region and in the ethnic minority areas, ethnoregionalization of poverty inevitably ensues, presenting China not only with economic challenges but also long-term sociopolitical security risks.

Even as early as 1996, the government admitted that there had been 3000 incidents of worker protest, and with as many as thirty million employees planned to be retrenched from the State-owned enterprises, this did not auger well for social stability, as some observers noted in 1999:

The reaction of the workers has been far from passive. According to the Chinese Academy of Social Science's annual report on social issues, an average of nine explosions rocked the mainland each day in 1998 as part of a growing crime wave. By early March 1999, there had been 13 bomb explosions this year, killing thirty-three people and injuring more than 100. The report blamed rising crime on joblessness, widening income disparity and anger at rampant corruption for this trend.

(Cook and Murray, 1999:4)

It was reported that in 2005 public order disturbances rose by 6.6 per cent to 87 thousand, or an average of almost 240 a day.[24] Statistics further revealed that there were 94 thousand large-scale protests and demonstrations in 2006, involving more than 500 thousand people – an alarming increase from the statistics of 2005.[25] Poverty has also led to increasing crime such as narcotrafficking, especially in various parts of Sichuan, Ningxia, Guizhou and Gansu, reflected in such popular sayings like "Xia Yunnan shang qianxian, yi lai yi qu ji shi wan, sha le naodai ye qingyuan [To Yunnan to the battlefield, earning tens of thousands in just one trip – something really willing to die for]", and in many cases narcotrafficking has turned into a family business: "Sha le laozi erzi gan, sha le zhangfu qizi gan [Father's killed, son taking over; husband's killed, wife taking over]" (Nie and Yang, 2006: 193). In other words, narcotrafficking is seen as a risk worth taking to escape a life of abject poverty.

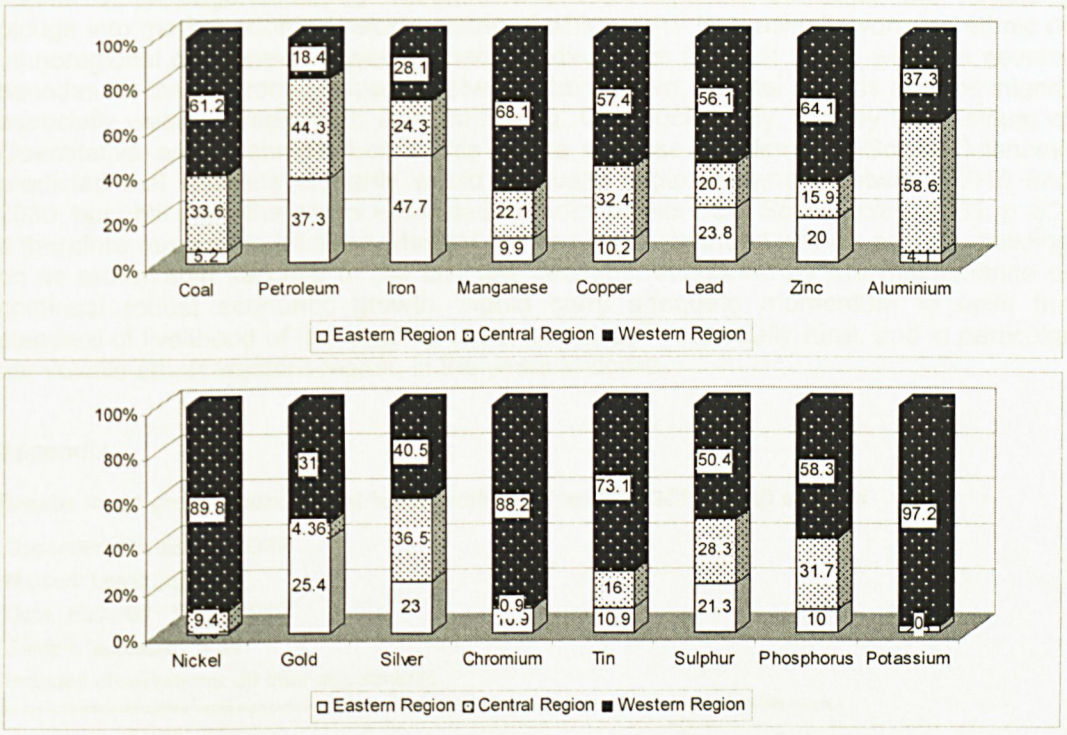
Equally alarming is a series of unrest with an ethnoreligious or ethnoregional content or a mix of the two. A most notable of such incidents is the Han-Hui conflict in October 2004 that occurred in the Nanren village and two other nearby villages in Henan province's Zhongmou county, which allegedly killed more than 100 people including at least 15 policemen, and injured more than 400 people, and at one point threatened to draw thousands more into the frenzy, thanks to the cellphones and computers that proliferate even in rural China.[26] Though the conflict was probably triggered by a local traffic accident and rooted in strong historical-cultural factors including perceived overall Han dominance and backlash against certain preferential policies for the ethnic minorities, simmering tensions might have been exacerbated by China's economic success that led to a growing gap between rich and poor, especially in the countryside. Other than the Nanren conflict, there was also the unconfirmed news of another serious Han-Hui conflict in August 2007 in the Shimiao township in Huimin county of Shandong province, close to the Hui county of Shanghe, that resulted in at least a death and more than twenty injured. This was not the first such open conflict in Shandong which earlier experienced the well-known "Yangxin incident" in 2000 when six Huis were killed during a thousand-strong Hui protest against a "*Qingzhen Zhurou* [Halal pork]" shop sign.[27] More recently such cases of public order disturbances were alarmingly manifest in a series of serious incidents that occurred on 28th June 2008 (in Guizhou), 5th July 2008 (Shaanxi), 10th July 2008 (Zhejiang), 17th July 2008 (Guangdong) and 19th July 2008 (Yunnan).

The combined impact of high incidence of poverty, rising unemployment, interethnic inequalities and ethnoregional disparities hence represents one of the major challenges facing China's ruling regime in maintaining social stability for continued rapid economic development that is now increasingly seen as the key to the survival of its one-party rule.

As the incidents of socioracial conflict in Henan and Shandong cited above testified, a general increase in unrest in rural areas might also have been fuelled by dissatisfaction over poverty and corruption, perceived inequality in the distribution of resources in favour of the Han, and backlash against certain preferential policies for the minorities.[28] Then there is the long-running, simmering, tension and hostility in Xinjiang and Tibet, where especially in Xinjiang, it had increasingly been taking on a mixed ethnoreligious and ethnoterritorial flavour, with the increasing undertone of ethnic separatism. Furthermore, contemporary studies on intergroup relations often see ethnicity not as a "given" of social existence, but as a political construct linked directly to power relations and resource competition, and "it is as an instrument for political mobilization that ethnicity often plays a key role in the interplay between group activities and public policy" (Yeoh, 2008d: 81). While the vast ethnic minority area that covers Shaanxi, Ningxia, Gansu, Qinghai and Xinjiang continues to lag further and further

behind the rest of the country since market-oriented economic reforms were introduced in the late 1970s, the realization by the central government in Beijing lately that the region is the treasure trove of mineral wealth (see Figure 23) has probably helped to change its attitude towards the area.

Table 23 China: Distribution of Mineral Reserves (Region as proportion of all China (%))



Source: *Zhongguo Diqu Jingji Fazhan Zhanlüe Yanjiu*, 2003, p. 122, Table 7-4. (Computed from "Quanguo Kuangchan Chuliang Hui Zongbiao". Calculated with reserve volume as at end of 1997.)

It could be argued that as a political urgency China has no choice but to give due politico-economic consideration to her western region – a region populated by many ethnic minorities and having alarmingly lagged behind during the market-oriented reforms – for the sake of sociopolitical stability that is deemed crucial to the security of the Chinese state. Such concerns were obviously behind the "Western Regional Development" strategy which at first seemed to be an easy way for Jiang Zemin to assert his authority ahead of the 16th Party Congress scheduled for the autumn of 2002, in parallel with thought control through ideological and political work. While the strategy would cover many minority zizhiqu whose majority population are ethnolinguistically and/or ethnoreligiously distinctive from the Han Chinese central State, the plan has always been understood to be a political process to allocate pieces of the economic pie to the local governments in the western region but not about political decentralization that usually goes hand in hand with democratization.

Hence, it can be observed that the major challenges presently facing China's central government actually come from within China herself, as manifest in the increasing number of protests that have erupted all over the country lately over issues

like local government corruption, industrial disputes – including the loss of lives due to the too frequent mining accidents – and residential dislocation due to dam constructions or property development. While public protests with the scale of the 1989 Tiananmen demonstrations seem remote, the one-party regime ultimately stakes its survival upon the continued robust economic growth and the effectiveness of authoritarian power,[29] and how well it takes upon the task of redressing the mounting grievances simmering across China engendered by decades of uneven development since her headlong plunge into market-oriented reform, many of which carry increasingly worrying ethnic or ethnoregional overtones. However, many studies have forecast that it will take several decades for the economic disparity between the eastern, coastal regions and the inland, especially western, regions to start narrowing. One such study, that by the Institute of Quantitative and Technical Economics of the Chinese Academy of Social Sciences, predicted that absolute disparity would gradually begin to narrow between 2010 and 2030, but until then, the gap is estimated to widen further (*IDE Spot Survey*, 2001, p. 63). It therefore remains to be seen whether the country's continued war on poverty, building on its remarkable success of the last few decades, supported by the maintenance of continual robust economic growth, would carry adequate momentum to uplift the standard of livelihood of the majority of her populace[30], especially rural, and in particular her volatile ethnic western region, in the years to come.

Appendix

Results for 31 provinces/zizhiqu/zhixiashi with variables FDI, GDR, ROAD and HDI

Dependent Variable: PCGRP
Method: Least Squares
Date: 10/20/08 Time: 21:50
Sample (adjusted): 1 31
Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-832.97	23030.07	-3.616271	0.0013
FDI	0.013425	0.006989	1.920932	0.0662
ROAD	0.380510	0.179386	2.121175	0.0440
GDR	-3.023632	185.4447	-0.016305	0.0987
HDI	127.0	22766.70	5.611177	0.0000

R-squared	0.718553	Mean dependent var	11995.61
Adjusted R-squared	0.689522	S.D. dependent var	9189.370
S.E. of regression	4215.892	Akaike info criterion	19.68212
Sum squared resid	4.44E+08	Schwarz criterion	19.91565
Log likelihood	-290.2318	F-statistic	28.19535
Durbin-Watson stat	1.803092	Prob(F-statistic)	0.000000

Results for inland provinces/zizhiqu/zhixiashi (20) with variables FDI, GDR, ROAD and HDI

Dependent Variable: PCGRP
Method: Least Squares
Date: 10/20/08 Time: 21:52

Sample (adjusted): 1 20
Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	610.162	8761.934	0.696554	0.4967
FDI	13.96943	7.450485	1.874969	0.0804
GDR	-179.9644	71.31050	-2.523673	0.0234
ROAD	0.106625	0.090112	1.183246	0.0255
HDI	126.22	9330.533	1.352358	0.0916

R-squared	0.655431	Mean dependent var	7276.613
Adjusted R-squared	0.563546	S.D. dependent var	1789.408
S.E. of regression	1182.166	Akaike info criterion	17.20040
Sum squared resid	20962734	Schwarz criterion	17.44933
Log likelihood	-167.0040	F-statistic	7.133175
Durbin-Watson stat	1.602536	Prob(F-statistic)	0.002003

Results for eastern, coastal provinces/zhixiashi (11) with variables FDI, GDR, ROAD and HDI

Dependent Variable: PCGRP
Method: Least Squares
Date: 10/20/08 Time: 21:45
Sample (adjusted): 1 11
Included observations: 11 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-204.5	53711.20	-3.807615	0.0089
FDI	2.667597	4.159915	0.641262	0.0545
GDR	-287.4968	352.3722	-0.815889	0.0445
ROAD	0.106959	0.173377	0.616911	0.0560
HDI	262.54	52177.35	5.031665	0.0024

R-squared	0.644452	Mean dependent var	20109.74
Adjusted R-squared	0.607420	S.D. dependent var	11156.64
S.E. of regression	3394.632	Akaike info criterion	19.40073
Sum squared resid	69141155	Schwarz criterion	19.58159
Log likelihood	-101.7040	F-statistic	25.50358
Durbin-Watson stat	2.467492	Prob(F-statistic)	0.000657

Notes

[1] Please refer to Besley and Burgess, 2003.
[2] *zizhiqu* – "autonomous region"; *zhixiashi* – municipality directly ruled by the central government.
[3] Even the relatively isolated Fujian province, blocked by the Zhejiang province at the north and Guangdong province at the south, has a full length of coastal line for importing and exporting, and

is a favourite destination for investors from across the Taiwan Strait (Taiwanese and Fujianese largely share the same regionalect) and among the Southeast Asian Chinese diaspora.

[4] Bert Hoffman, "Access to Opportunity Eases Income Inequality", *The Star* (Malaysian daily), 21 January 2006.

[5] *http://english.peopledaily.com.cn/200409/07/eng20040907_156240.html*

[6] Beijing Review, April 10, 2000, p. 14.

[7] *Shijie Ribao*, January 12, 2000, p. 9. See also Wang and Hu (1999) for details of comparison.

[8] A *zizhiqu* ("autonomous region") is a first-level administrative subdivision of China. A zizhiqu has its own local government, but it has more legislative rights. It is a minority entity and has a higher population of a particular minority ethnic group. There are five zizhiqu in China: Tibet, Guangxi, Xinjiang, Inner Mongolia and Ningxia.

[9] The *zhixiashi* (direct-ruled municipalities) are the highest-level cities in China, with status equal to that of the provinces. Currently China's zhixiashi are Beijing, Tianjin, Shanghai and Chongqing.

[10] Yeoh (2006) included only 30 provinces/zizhiqu/zhixiashi in his study, as Chongqing was included as a part of Sichuan. On the other hand, Bulent Unel and Harm Zebregs (2006) included only 28 provinces/zizhiqu/zhixiashi in their study.

[11] Data are for year 2004.

[12] *http://www.chinadaily.com.my*

[13] Longde Wang *et al.*, "Preventing Chronic Diseases in China", *Lancet* 366, no. 9499 (2005): 1821-24.

[14] Liming Lee, "The Current State of Public Health in China".

[15] The fact that the investment coefficient is not significant requires some explanation. The regression was run with the full sample of all provinces/zizhiqu/zhixiashi of the western region. However, FDI in many of these provinces/zizhiqu are actually negligible or non-existent.

[16] Research Team for Report on Education and Human Resources, 2003.

[17] According to the "critical mass" theory – advanced, among others, by Semyonov and Tyree (1981) – societies are considered multiethnic only if minorities constitute more than ten per cent of their population.

[18] Affirmative action and preferential treatment are "race-conscious" and "group-centred" strategies in contexts where the dominant policy form, particularly in liberal democracies, is individual-centred and "colour-blind" (Edwards, 1994:55).

[19] "Poverty is local and it can only be fought at the local level" (UNCHR, 1999).

[20] "An Awakening Dragon Shakes up the World" (Editorial), in *China Goes Global*, Financial Times' Asia Insight series, 2005, p. 14.

[21] Another factor that needs to be considered is how such instability in China may affect the delicate balance in interethnic power configuration so far maintained in many of these Southeast Asian societies.

[22] "Yuan" (¥ or ￥) is the largest denomination of China's currency "renminbi" ("people's currency", Rmb), roughly equivalent to US$0.15 or RM0.47 (Malaysian ringgit).

[23] As the applicant of poverty relief fund and the last user of the funds, the county (*xian*) is the most important and basic unit in the work of poverty alleviation (Chai *et al.*, 2004: 16).

[24] "Taiwan Offers China Lessons in Democracy", *The Star* (Malaysian daily), 21st May 2006.

[25] *Dongfang Ribao* (Malaysian daily), 1st February 2008.

[26] Jehangir Pocha, "Ethnic Tensions Smolder in China: Government Blocks Foreign Journalists from Reporting on Han-Hui Riot", *In These Times*, 28th December 2004. <*http://www.inthesetimes.com/site/main/article/1789*>
As usual, due to press restraints, casualty figures as such can never be verified.

[27] *Xingzhou Ribao*, 5th September 2007.

[28] *Ibid.*; "Ethnic Violence Hits China Region".
<*http://news.bbc.co.uk/1/hi/world/asia-pacific/3970611.stm*>

[29] "Powerful Abroad, Fragile at Home" (Editorial), in *China Goes Global*, Financial Times' Asia Insight series, 2005, p. 15.

[30] Not least to hold off or delay the inevitable challenges to the regime's one-party rule and to keep the "creeping democratization" (see Pei, 1995) process in check.

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