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> Mind the gaps: A political economy of the multiple dimensions of China's rural–urban divide

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#### Abstract

China's impressive growth has been accompanied by increasing inequality and a widening ruralurban divide. This paper identifies and examines nine major dimensions of this divide: income, consumption, education, healthcare, employment, child care, pensions, access to public services and environment. The paper attributes the main causes of the rural-urban divide to China's development strategy and the associated regressive tax and subsidies policies. This paper is among the first to evaluate and decompose the rural-urban divide into multiple dimensions or gaps, and highlights the severe constraints on the Chinese peasantry. It discuses the policy and welfare implications of the rural-urban divide. It argues that the large size of the rural-urban divide was mainly due to inequality in opportunities and the lack of social provision of public goods in rural areas. The removal of discriminatory policies, including the provision of such public goods, will lead to greater equality of opportunity and a reduced gap. Increased equality and efficiency can be achieved simultaneously.

Keywords: poverty, income inequality, rural-urban divide, China

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# 1. Introduction

Since the start of the reforms in 1978, China's real GDP has been growing at an average of around 10 per cent per annum. 200 million people have been lifted out of 'extreme poverty', according to National Bureau of Statistics (NBS). This impressive growth in national income has, however, been accompanied by increasing income inequality. Estimates of the Gini coefficient, measuring income inequality, have increased steadily, from 0.33 in 1980 to 0.40 in 1994, to 0.46 in 2000 and to 0.47 in 2009 (NBS). These figures indicate that China has moved from being among the more equal to nearly the most unequal of the developing countries and has crossed the widely recognised UN-Habitat's 'international alert line' of a Gini coefficient of 0.4. As of 2009, there were still around 150 million people in China, almost exclusively in rural areas, living on less than US\$1 a day – these account for around 18 per cent of the world's extremely poor (NBS).

While income inequality has risen nationally, the increase in rural–urban inequality in particular has been significant. Indeed, the rural–urban income gap is the main reason for the income inequality, and many (including Chang 2002, Eastman and Lipton 2004) find that the disparity between rural and urban incomes in China is amongst the biggest in the world. The disparity between urban and rural areas is even greater when other influences on the quality of life, such as welfare benefits and infrastructure, are taken into account in addition to income (Sicular, Yue, Gustafsson and Li 2007).

A peculiar feature in China is the Household Registration (Hukou) system, which effectively divides the population into two groups. This has contributed to different development levels in urban and rural areas. The system has severely reduced the extent to which rural people can migrate to urban areas for a higher income and a better livelihood.<sup>1</sup>

There are two issues in the literature that need to be more fully addressed. First, although there has been considerable interest in the literature in inequality and the rural–urban divide in terms of income and consumption, few studies have explored the scale and dimensions of other aspects of this divide.<sup>2</sup> There are, however, other gaps which might be more severe, in terms of welfare, than the income and consumption dimension, and these have evolved and trend in their own ways. Second, most of the analysis (for example, Yang and Cai 2003; Lin and Liu 2008) attributes the divide to inappropriate government intervention. It argues that by reducing such government intervention, the income gap can be narrowed through growth, thus both efficiency in production and equity in income distribution can be achieved. However this analysis failed to explain the

<sup>&</sup>lt;sup>1</sup> Introduced in the 1950s, the Hukou system is a de-facto internal passport mechanism, where no unauthorised movement between sectors was legally allowed. It created invisible walls and administrative barriers that divided China into two: those in the urban sector with many rights and privileges, and those in the rural areas, who generally have far fewer political rights and opportunities to participate in or influence policy. Since the reforms began, although there has been a continuous loosening of controls and restrictions on rural labour moving to cities, it still remains extremely difficult for a rural person or household to become a permanent urban dweller (that is, to obtain an urban *Hukou*). Even temporary migration has been restricted by city governments in order to minimise unemployment of urban workers and to maintain social order in towns and cities (Knight and Song 2005: 184).

<sup>&</sup>lt;sup>2</sup> Knight and Song (1999) provide some discussion of the gaps in education, health care and housing, but there is still a need to establish a holistic view of the multi-dimensional nature of the divide. Yang and Cai (2003), Knight, Li and Song (2006), Lin and Liu (2008), Park (2008) and Sicular et al (2010), for example, study the rural–urban divide from a range of different perspectives, but each is limited in its approach.

apparent puzzle that the rural-urban income gap was increasing and became much bigger on average in the reform period, when government intervention became less.

To sum up, there are still many questions that need to be answered and many mechanisms that need to be better understood. For example, what other gaps, in addition to the income and consumption gaps, are there between the rural and urban areas? What are the fundamental causes of these gaps? Are these gaps in some sense natural and a result of market forces or due to government policies? Why is the income gap still increasing, despite both the elimination of many of the 'distortionary' polices which were blamed for it, and the introduction of some rural social programmes which aimed to reduce it? Would the alleviation of rural–urban inequality hamper efficiency? This paper addresses these questions. It firstly examines the extent of China's rural–urban divide through nine dimensions and secondly assesses the fundamental causes of this divide.

The rest of the paper is structured as follows. Section 2 examines the many dimensions of the rural–urban divide and Section 3 investigates their causes. Section 4 discusses the difficulties faced by rural residents, the mechanisms by which equality and efficiency might be achieved simultaneously and the inadequacy of only eliminating existing discrimination. Section 5 concludes.

# 2. Dimensions of the divide

There are many dimensions to the rural–urban divide. In this discussion it should be noted that this concept in China has both similarities and differences compared with other developing countries. At one level it could be considered simply in terms of rural areas and urban areas – comparing livelihoods of people in those areas. But in China, an individual's status is legally defined by their Hukou status. This means that, despite some rural people moving to urban areas and even remaining there for a prolonged period of time, they are still classified as rural people if they do not have an urban Hukou. In 2005 figures indicate that 100 million people with rural Hukou status were resident<sup>3</sup> in urban areas (China State Council, 2006). In the subsequent discussions, the distinction between 'rural areas' and 'rural people' (as defined by their Hukou) needs to be borne in mind. The context should make it clear whether it is the area or the people that are being referred to.

# 2.1 Income gap

It has been confirmed that the rural–urban income gap is increasing and is now amongst the largest in the world (for example, Sicular *et al.*, 2007). To provide an intuitive view of the income gap, Figure 1 shows the average per capita income for urban and rural households on the left axis and the ratio of urban to rural average income on the right axis. From the figure it is clear that the rural– urban income gap has increased over time.<sup>4</sup> From 2002 it is noticeable that although rural–urban

<sup>&</sup>lt;sup>3</sup> Residency here in this data is defined by the Chinese State Council as 'at least three months' in the particular urban area.

<sup>&</sup>lt;sup>4</sup> There have been two periods where the rural–urban income gap decreased. In the first of these two periods, between 1978 and 1985, it fell because rural reforms boosted rural agriculture production. In the second, between 1994 and 1997, many workers in the state-owned enterprises in the urban areas were made redundant.

income inequality is still increasing, the rate of increase is slowing. By the end of the period, 2009, urban average income had reached 17,175 *Yuan*, while rural average income was only 5,153 *Yuan*. This is a ratio of 3.33:1.

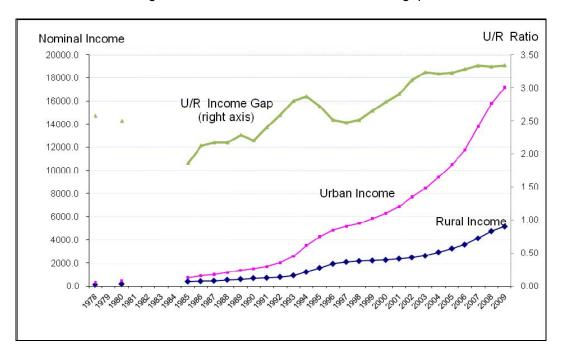


Figure 1. Evolution of rural-urban income gap

Notes: Calculated by authors based on China Statistic Yearbooks. It breaks where the data is not available.

Figures are based on average per capita annual income of urban and rural households at current prices (left axis). The rural–urban income gap is the ratio of average urban per capita income level to average rural per capita income level (right axis).

The ratio does not eliminate the effect of price differentials between urban and rural areas on consumption expenditure.

It is important to note that these calculations use the standard published figures for household disposable income and they may only capture a small amount of the difference between average real wellbeing of individuals in urban and rural areas. When all other non-monetary factors are included, the real rural–urban divide is much higher than income figures indicate. Fan (2008: 79) reports Li's (Li, 2003, *in Chinese*) argument that when urban non-monetary income is taken into account, the ratio of urban income to rural income in China was 3.62:1 in 2000. Fan (2008: 79) also quotes a Chinese government report (Guomin Jingji 2005, *in Chinese*) as indicating that urban income is five to six times higher than rural income.

However, the above discussion focused on average income in both urban and rural areas. Within both areas this hides a wide dispersion. In particular, in the rural areas there are many extremely poor households. In 1999 the central government announced *Regulations on Guaranteeing Urban Residents' Minimum Standard of Living* to ensure a basic livelihood for all urban residents.<sup>5</sup> If family income falls below a locally specified minimum income level, the local government proposed to finance the shortfall. However, there is no such guarantee in rural areas and very poor people still largely rely on private savings and family support, or simply have to do without.

Despite the importance of this issue, there is still no consensus as to the most appropriate measure of the income gap. Most of the literature takes into account cost of living differences, which are generally higher in cities, and use a bigger price inflator for urban areas. This results in a much smaller rural–urban gap. However, this literature ignores differences in the quality of the goods that are typically consumed by urban and rural consumers (Johnson, 2002). As a result, these studies overstate the price index appropriate in urban areas and understate the real income and consumption level compared with the rural areas.

Sicular et al (2010) include income figures for rural migrants (generally much lower than the incomes of those with urban Hukou status) in their calculation of urban income and they find a smaller rural–urban income gap. However, an important question is whether rural migrants to the urban areas have much in common with other urban dwellers. Many of these migrants remain officially rural residents and even though they were part of the urban labour force, their tax liability was based on their original rural Hukou.

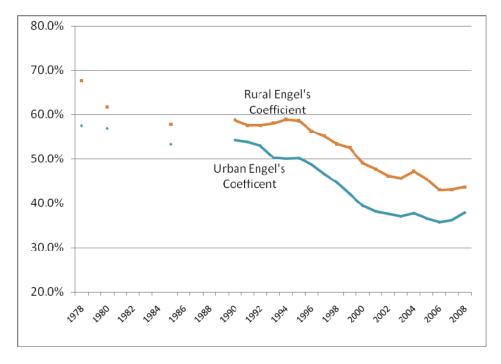
# 2.2 Consumption gap

Despite its importance, there is very little literature on the consumption gap, mainly due to the paucity of the data. The conventional view is that in the pre-reform period both urban and rural areas were equally poor, so that consumption inequality was not a problem. However, this view may not be so accurate now. Many, including Lin (1990), have discussed the fall in the national population that has largely resulted from hunger and malnutrition during the period 1959-62. This phenomenon is now referred to as *the Great Famine* and could have killed at least 30 million, overwhelmingly in the rural areas. Urban areas were guaranteed a supply of food by the state, and the strict enforcement of the Hukou system prevented, or substantially reduced, rural–urban migration during the period of the famine.

After the introduction of the Household Responsibility System (HRS) in 1979-84 and the resulting more efficient and higher agriculture production, most rural areas were freed from hunger. However, despite these improvements, many in rural areas are still struggling to meet the bare necessities of life. Conversely, urban consumption has risen massively. So, while there may perhaps be only a small gap in terms of calorie intake, there may be huge differences in terms of consumption patterns, quality of goods and services and the overall quality of life.

<sup>&</sup>lt;sup>5</sup> 'Regulations on Guaranteeing Urban Residents' Minimum Standard of Living' (1999) in White Paper on China's Social Security and Its Policy (Information Office of the State Council, PRC) at http://english.gov.cn/official/2005-07/28/content\_18024.htm.

A good indicator of the consumption gap is the difference in the urban and rural Engel coefficients – that is, the percentage of expenditure on food in total consumption expenditure. Because food consumption has smaller income elasticity, this is a good indicator. These are shown in Figure 2, which again uses NBS data published in the Chinese Statistic Yearbook from 1978 to 2008. It can be seen that, although the Engel coefficients for both urban and rural households decreased by about 35 per cent, there is a constant 15-20 per cent difference between the two groups, which indicates the level of consumption differences. This again may understate the difference, because those in the urban areas tend to eat out in restaurants more than rural households, as they adopt a lifestyle enjoyed by those on higher incomes. So urban food expenditure might actually be on services rather than on basic food items.



#### Figure 2. Evolution of rural-urban consumption gap

Notes: Calculated by authors based on China Statistic Yearbooks. It breaks where the data is not available.

The rural–urban consumption gap is illustrated here by the difference between the urban and rural Engel's coefficients.

In the study of rural consumption, as with income,, many people take for granted the use of a lower price index for rural areas, which results in a lower consumption gap. Again, differences in the quality of goods are ignored and if these were taken into account, measures of the consumption gap would be bigger.

Another problem is a possible error in the attribution of production expenditure for consumption expenditure. Rural households not only consume grain, but also retain some to plant for next year's

harvest. If all grain purchased were as consumption, this clearly overstates rural consumption. Or more generally, if expenditure on farm inputs is deducted from total income, the amount left for consumption or savings in rural areas diminishes, increasing the rural–urban consumption gap still further.

# 2.3 Education gap

The gap between urban and rural education has many aspects, including costs, level and quality and the returns to education. Schools in urban areas receive a large amount of support from the government, while those in rural areas receive very little. Rural residents are required to contribute via taxation to the maintenance of the physical infrastructure of schools and teachers' salaries. Many rural areas are so poor that the tax revenue is insufficient to pay for schools, and where they do exist, they are often of low quality. Furthermore, even where schools do exist, some families are unable to send their children to school because they cannot afford the tuition fees.<sup>6</sup>

The most important factor influencing a person's educational attainment, or enrolment, after *age*, is whether that person lives in a rural or urban area (Knight and Song, 1999; Knight, Li and Song 2006). In 2005, the proportion of senior high school graduates from urban areas was three times higher than from rural areas, and the proportion of college graduates four times higher (NBS). It has been estimated that if rural education levels were to increase to the level of urban areas, the overall rural–urban income gap would decline by 25-30 percent (Sicular *et al*, 2007: 123)

It should be noted that returns to education in China have been found to be low when compared to other countries, but this is especially the case in rural areas (Appleton *et al* 2004; Wang and Piesse 2008). Low returns to education, particularly in rural areas and especially for high schools, provide a low incentive for families to pay the cost of education for their children. All these factors together trap many rural people in a state of poor education and thus only able to get low wage employment, making inequality self-perpetuating.

# 2.4 Healthcare gap

During the pre-reform period, China's health insurance system provided virtually free coverage for people employed in urban state enterprises and the public sector and relatively inexpensive coverage for their families. However, in the rural areas, widespread and free healthcare only became available towards the end of the pre-reform period. Taking the country as a whole, the collective health care system in the pre-reform period impressively reduced infant mortality rate and increased life expectancy at birth from around 40 in 1950 to 65 in 1978.

In the reform period, while most of the urban population have still been provided with various kinds of subsidised healthcare, the system collapsed in the rural areas.<sup>7</sup> The system in the countryside

<sup>&</sup>lt;sup>6</sup> Tuition fees have been gradually abolished since 2008. However, there may still be incidental costs to attendance at school which may be important.

<sup>&</sup>lt;sup>7</sup> Since the late 1990s, there have been three major social insurance programmes that were at the centre of the health financing reform process: one covering urban formal sector workers; one for other urban residents; and a programme for rural residents (see for example, Dong 2009). In the reform process, government

had been tied to the collective farms. When these were abolished, there was almost a complete lack of investment and subsidy and access to healthcare was massively reduced. The situation in rural areas stands in sharp contrast to the increasingly high-quality care in China's relatively more affluent urban areas. In the rural areas, only 10 percent of the population are covered by rural cooperative health service schemes and more than 80 percent of the rural population have no access to medical support from any source.

Many rural people are caught in a poverty trap, whereby when they suffer from poor health their inability to pay medical costs prevents their recovery and ability to return to work. In the 2003 National Health Survey, 30 percent of poor households identified a large healthcare expenditure as the reason that they were in poverty (Ravallion and Chen 2007). As a result, many poor households either forego treatment, exacerbating illnesses and increasing the inequality in life expectancy, or face devastating financial consequences. Thus ill-health is not only a consequence, but also a leading cause of poverty.

In an effort to prepare for future epidemics, and seeking to address growing economic divisions, the government has been undertaking a reform of its healthcare system, with the stated aim of improving the quality of healthcare in the countryside. Although the New Rural Co-operative Medical Care System initiative was introduced in 2005 to overhaul the healthcare system, and in particular to improve access and make it more affordable for the rural poor, patients still have to pay about 40 percent of hospital charges. On top of that, there remains a tendency towards an 'urban concentration of health-care facilities and expertise' (Rutten 2010: 18).

# 2.5 Employment gap

China has been characterised as having surplus labour and the rural areas have operated as the sink for this surplus labour. Urban areas enjoy an average income based on institutional wages that is substantially higher than average rural income based on a subsistence level (Knight and Song 2005, Wang and Piesse 2008). The fragile position of rural workers is further compounded by the fact that their wages are weakened by the lack of other opportunities, information about alternatives or social security.

The agriculture sector in general has high levels of surplus labour and very low marginal productivity. The route out from this is migration to the urban sector. Rural people are aware that higher returns to their labour exist outside agriculture, but have limited opportunities to pursue non-agricultural activities. Migration to urban areas remains difficult for many people.

At the beginning of the reform, rural residents needed a permit to allow them to migrate to other areas in order to work, and these were issued on a quota basis. On arrival in a new city, they were required to register with the police, and both the permit and registration were subject to a fee. These fees were often very high, posing an insurmountable barrier for some and a deterrent for many.

initiatives made it easier for hospitals to raise revenue from patients. As a result of this, the wealthy and the insured have had improved access to healthcare, but this has made things more difficult for those with little or no insurance. The majority of the uninsured are from rural areas.

Moreover, there are restricted employment opportunities for rural migrants as a result of city governments' attempts to minimise unemployment for urban residents, in order to maintain social order (Knight and Song, 2005: 184). For example, in the 1990s, State Owned Enterprises (SOEs) were required to give jobs to urban residents first and to employ a certain proportion of local residents, despite the fact that migrants would have been prepared to work for a lower wage. In fact, the political and institutional arrangements gave urban residents privileged access to secure employment at above market-clearing wages, and controlled the flow of peasants to the cities, allowing rural migrants to fill only the jobs that urban-dwellers did not want (Appleton *et al* 2004).

Past research has shown that labour markets in China have been highly segmented for many years (Knight and Song 1999; Appleton *et al* 2004; Knight and Song 2005). Despite the recent relaxation in regulations, barriers in the form of government restrictions on labour movement remain. The opportunities for labour are much greater in the urban areas, where only between 3.6 and 4.3 per cent are registered unemployed from 2000 to 2005 (NBS). Those with urban Hukou that are unemployed can claim minimum income subsidies and enjoy pensions and unemployment insurance. This is not so in the case of those with rural Hukou, for whom none of these security nets exist.

#### 2.6 Childcare gap

Many migrant workers leave their children at home in the rural areas. This has created a phenomenon called the 'left-behind children' problem (*liushou ertong*). One or both of the parents of such children work far from home and leave the children in the care of grandparents, other relatives, or alone. The causes for this include the fact that migrants themselves see their move as temporary (their rural Hukou status is fixed and they may have to return to the countryside if they become unemployed), the low wage and high living cost in urban areas mean that it is too expensive to have their children with them, and finally the Hukou restrictions make it difficult for the children of migrants to attend schools in urban areas.

As of 2008, China had 140 million rural workers working away from their home county (NBS). Associated with this, there were a large number of left-behind children. The All-China Women's Federation (2008), the equivalent of the Ministry for Women, estimated that there were about 58 million 'left-behind children' aged up to 17 and about 40 million left-behind children under 14. Roughly 28 percent of all children living in the countryside are 'left behind'. Among these 'left-behind children', nearly 53 percent have both parents working away, and among these, 48 percent live with their grandparents. A problem with this arrangement is that the educational level of adults taking care of these children is generally low and they often only take care of the children's basic needs and not their educational and emotional ones. It is not unusual for these children to be left alone for much of the time and there are frequent reports of child suicides and criminal activity that are attributable to negligence and lack of appropriate care.

# 2.7 Pension gap

After 1979, aggressive family-planning policies were not matched by adequate retirement planning. Rural peasants were excluded from pension plans and as a result a far lower proportion of people in rural areas have pensions than in urban areas. For example, in 1987, while 63.7 percent of the elderly living in urban areas received pensions, the figure for the countryside was only 4.7 percent (McCarthy & Zheng, 1996). Thus, while elderly people may not wish to be dependent on their children for support, the scarcity of social-welfare benefits and limited economic development in rural areas is likely to increase the chance that this is necessary.

The government is currently reforming the pension system and part of these reforms addresses the lack of pensions in rural areas. Some farmers over the age of 60 will be able to receive a small monthly endowment. This is sponsored mostly by local government and is of a varying amount, according to certain areas' income standards. But, overall, the government's pension policy is still focused mainly in urban areas and the provision for old age in rural areas is still extremely poor.

# 2.8 Public goods and services gap

Large amounts of government revenue are invested in urban development projects, while there is relatively speaking far less per capita in rural areas. What is defined as a public service in a city may not be considered so in the countryside. Much of the public sector infrastructure that does exist in the rural areas is provided by the rural population themselves.

China has a highly decentralised fiscal system, in which local governments rely primarily on local tax collection to provide basic public sector goods and services. However, some have argued that many such services are never received, or the work is not done (Knight and Song, 1999). Furthermore, the social security net is almost non-existent in rural areas. In the reform period, the Household Responsibility System created a huge boost in agriculture productivity, production and rural income, but the disintegration of the collective farms meant the dismantling of almost all social provision.

# 2.9 Environmental gap

Although air pollution in urban areas is often far worse than in rural areas, the lack of any regulation in the latter has meant that some rural industries are imposing severe environmental threats. There are so-called 'cancer villages', where the occurrence of cancers is many times the national average.<sup>8</sup> Most of these 'cancer villages' can be seen to be the result of local government's eagerness to build factories, but lack of knowledge, experience or will to establish environmental controls. The reluctance or inability to implement environmental regulations has resulted in the proliferation of factories using dangerous chemicals, causing many deaths in rural villages. In addition to this, according to the Chinese Ministry of Health, at the end of 2007, fewer than two-

<sup>&</sup>lt;sup>8</sup> See Lora-Wainwright (2010) for a field study from an anthropologist and villager perspective.

thirds of rural villages had access to piped water and only just over half had hygienic toilets (Holdaway 2010).

#### 2.10 Other dimensions of the rural–urban divide

Despite the major differences discussed above, there are others, such as the digital divide, differential access to media, culture and travel, on which there is currently little information or substantive data. All of these support the thesis of major divisions between welfare in urban and rural households.

# 3 Causes of the divide

Understanding the causes and trends of the rural-urban gaps is important for analysing and improving social welfare. This section explores the fundamental causes of the gaps. The focus is firstly on natural factors that might contribute to the rural-urban divide and, secondly, on policy issues.

# 3.1 Inferior status of agriculture and rural areas

Simple economic analysis stresses the fact that the agricultural sector is fundamentally based on the use of land. Land is ultimately a factor of production, of which there is a limited supply and where the best land is used first and the marginal land second, resulting in diminishing returns to land. China also has high levels of surplus labour in the rural areas, which results in diminishing returns to labour. The surplus labour, combined with the low level of capital investment and consequent low capital to labour ratio, can drive labour productivity and thus incomes to an extremely low level. In this sense, the agricultural sector is intrinsically inferior to industry in terms of productivity. Because agriculture dominates the rural areas and industry the urban areas, income is lower in rural than urban households.

The difference in income introduces pressures for people to move from rural to urban areas. In a market economy this should have an equalising effect on income. However, factors such as the cost of migration, cultural differences and geographical distance act as barriers that prevent the equalising effects between the sectors. These natural differences explain the wage and income difference in many countries where labour is not prevented by legal or other institutional arrangements from moving between sectors. In Lewis (1954), the urban wage is approximately 30 percent higher than that in rural areas.

#### 3.2 Policy distortions

# 3.2.1 Development strategy in the pre-reform period

The inferiority of the agricultural sector arising from natural factors has been exacerbated by some elements in agricultural policy, which were part of the development strategy in the pre-reform period. This strategy explicitly sought to exploit the agricultural sector and the rural population, in order to support industrial development concentrated in urban areas. This prioritised capital-

intensive heavy industry over support for agriculture, and for many years, capital was taken from the agricultural sector to provide for high investment in heavy industry (Lin, Cai and Li 1996).

Under the system of central planning, the central government used a policy whereby industrial products had higher prices and agricultural products lower prices, a policy known as the 'price scissors'.<sup>9</sup> Because the free trade of agricultural products was forbidden by law, the rural population had no means of realising the market value of their products. This kind of exploitation is well documented in the literature (for example, Lin, Cai and Li 1996; Whyte and Sun 2010). As Whyte (2010a) points out, while pledging to promote social equality, the socialist planners systematically discriminated against rural peasants in China. It was hoped by the planners that the transfer of income from rural to urban areas and the prioritisation of the industrial sector would have been able to generate enough growth to would positively affect the entire country, including the rural areas. That is, that this growth effect would outweigh the negative impact of the rising inequality, and result in an improvement of living standard in rural areas.

The government institutionalised the rural–urban divide through the Hukou system, because it wanted to implement its heavy-industry oriented development strategy without causing the excessive rural–urban migration that is seen in many other developing countries. The extent to which this strategy has achieved some of its goal and helped make China better off in the long run is a question beyond the scope of this paper, but it is clear is that it has resulted in a very large rural–urban divide and it still has detrimental effects on the livelihood of rural residents. As Whyte (2010a) points out: 'It is one of the cruel ironies of modern Chinese history that a revolution led by a son of the soil that came to power by appealing to peasants and through a predominantly peasant-based army, ended up producing a social order that made urban privilege and peasant exclusion its cardinal organizing principles.'

# 3.2.2 Growth orientation in the reform period

Apart from the initial focus of the reforms, which were on the rural area and involved dismantling collective farming in 1979-1984, the reforms' focus quickly moved to the urban sector. Many practices from the centralised planning era were left untouched and remained largely responsible for the rural–urban divide.

Although the pursuit of a heavy industry strategy was replaced by a more market-oriented one, the growth path remained urban biased. The government's allocation of capital and investment was, and still is, largely concentrated in urban areas. The restriction of rural–urban migration continued and this not only reduced the competition faced by urban workers, but did so at the cost of rural residents who were excluded from the possibilities of higher income.

<sup>&</sup>lt;sup>9</sup> The government in a developing country uses price scissors to extract profits from peasants in the rural sector to subsidise workers in the urban sector. As a result, the government in this setting could increase capital accumulation using price scissors.

#### 3.3 A puzzle: reduced intervention and an increasing divide

Many studies (for example, Yang and Cai 2003; Lin and Liu 2008) argue that government intervention has harmed efficiency and that China should really have left things up to the market and produced according to the theory of comparative advantage. From this point of view, the heavy industrialisation strategy and the associated 'distortions' were a mistake. Removal of these distortions should improve efficiency and equity.

This leaves us with a puzzle. If the old development strategy and price distortions were the source of inequality and the rural–urban divide (as claimed by many, for example, Yang and Cai 2003; Knight, Li and Song 2006; Lin and Liu 2008), why has this divide worsened and inequality increased in the reform period, when the old development strategy was abolished and the associated government intervention (distortionary policies) has gradually been eliminated?

To solve this puzzle, one has to look at several different angles. One explanation is that the removal of the distortions and rapid growth in the reform period led to new inequalities. This is because growth is rarely uniformly distributed. If one starts off with equality and has any growth that is less than equally distributed, then overall inequality increases. The Kuznets inverted U-curve tells this story well.

The existence of surplus labour in rural areas and restrictions on migration made the development more uneven. For Hukou residents in urban areas, the unemployment rate was around four percent (NBS), however, huge amounts of surplus labour exists in rural areas (Kwan 2009). When there exists surplus labour, the wage income for rural people, whether migrant or not, would stay at subsistence level (Lewis, 1954). The large amount of surplus labour and constant low wage income contrasted with quick urban development and an increasing urban, institutionally determined, wage for those who have urban Hukou. This resulted in an increased rural–urban income gap.

Another explanation is that this puzzle is only true for certain gaps, like income or consumption. In the pre-reform period, income inequality was low across urban and rural areas and this led many to believe that China was egalitarian. However, using only income as a measure of the size of the rural–urban gap is likely to be misleading. The divide was very big in the pre-reform period when other gaps are taken into consideration. That is, although the puzzle of reduced intervention and an increasing divide seems a valid description if we restrict ourselves to the income and consumption dimensions, things are not so clear in other dimensions.

Thus, although it is largely correct to say that many distortionary policies have been removed, different policies have had different impacts on specific dimensions of the divide. One has to look at the different dimensions and the associated policies individually and separately, to see if the distortions have become worse or better in the reform period. For example, although government polices were urban biased, government intervention for rural healthcare, education and public goods in the pre-reform period had a positive impact, because those interventions were to overcome market inefficiency. The removal of the support for public goods prevision in the reform period has made the situation worse in rural areas.

#### 3.4 Taxation without social provision

To solve the puzzle of increasing inequality with reduced government intervention, in addition to the urban-biased growth strategy in the reform period, one has to look at the worsening adverse redistribution of income: or what might be best described as taxation without social provision.

In the reform period, price controls on agricultural output were gradually relaxed in the early 1990s; however, the tax and subsidy system remained unchanged until 2003-06. Many urban households have avoided having to pay much direct tax. This was because of both a high income tax threshold and the lack of enforcement of the tax laws. At the same time, many in the urban areas have received subsidies. The rural population has had to pay direct taxes regardless of their income status and ability to pay. This has put an additional burden on many already impoverished households (Bernstein and Lu 2000; Tao and Liu 2005; Wang and Piesse 2010) and these typically have received very little in terms of public services. Various studies, including Imai *et al* (2010) have confirmed the finding that the system of regressive taxation and subsidies has contributed to the persistent and widening rural–urban income gap.

In competitive markets, when there are high levels of taxation, individuals may choose to work longer hours to reach their target standard of living. The 'income effect' of taxes induces more work and hence increases economic efficiency (Salanie 2003).<sup>10</sup> However, in China, as in any country with high levels of surplus labour, the utility of leisure of those labourers is very low. When incomes of many rural households are close to subsistence level and would have reached the point that the marginal product of labour was close to zero, the substitution effect between work and leisure does not exist.

Thus, in any country with high levels of surplus labour, high taxation of the poor will only result in a reduction in the livelihoods of the rural population, while not increasing economic efficiency. Because of the surplus labour, most of the potential income-increasing opportunities have already been exploited. For example, they cannot increase income by working more and harder (because their MPL is near zero). The only way they can improve their income is to migrate to the industrial sector.<sup>11</sup> Therefore, high taxation will not increase overall national productivity, as it does in developed countries, with a progressive system of taxation. Any taxation on the poor will have a redistribution effect that will increase inequality.

If tax revenues are spent in a way that enhances output, or are redistributed effectively back to those on low incomes in the form of subsidies, the negative effects of tax may be minimised. This was the case in the pre-reform period. In return for paying agricultural tax, rural areas received government support for education, healthcare and some other public goods. However, things got worse for the rural areas in the reform period up to 2003-06. Farmers continued to pay taxes, but the social prevision was stopped.

<sup>&</sup>lt;sup>10</sup> In some cases, people work less to stay below a high tax threshold. This is illustrated by the famous example of Swedish dentists, who earn so much in a high tax economy, they reduce their hours worked. This makes the demand for dentists greater than supply and thus the price rises, prompting them to reduce their hours still further, and so on.

<sup>&</sup>lt;sup>11</sup> For the country as whole, however, there is the alternative of bringing the investment to them.

As discussed above, there has been little redistribution of income to rural residents in China. There has also been a lack of public infrastructure in the rural areas, as the major investment has been concentrated in the urban areas. The rural population neither received subsidies nor any improvement in local facilities, while providing much of the direct tax revenues, even in the reform period. This means that in a strict sense the unfairness of the tax system increased poverty and vulnerability in the rural areas and partly explains the increasing rural–urban gap in the reform period.

In essence, the 'naturally' inferior status of the agricultural sector would tend to lead to inequalities between urban and rural areas. But there has been a far deeper and more extensive divide, because not only have there been the government's distortionary policies, in factor allocation, price distortion and urban-biased investment, but also the negative effects of the urban-biased redistribution of income and social provision. Thus, although market forces might have been expected to reduce this divide by inducing convergence between urban and rural, government policies have prevented this.

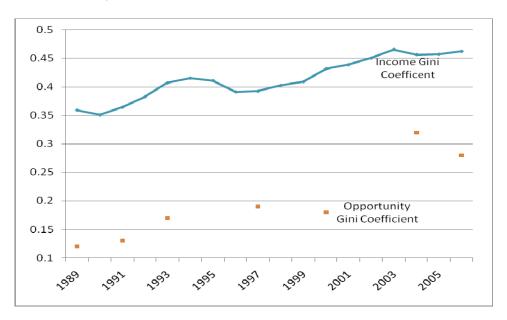
# 3.5 Inequality of opportunity

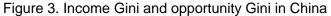
Another feature, and in a sense the most fundamental feature of the divide, is inequality of opportunity. Inequality of opportunity relates not only to differences in access to education and employment, but to the inequality in all factors affecting the individual's welfare, over which they have no control. Zhang and Eriksson (2010), following Roemer (1998), argue that the factors which affect an individual's advantage should be divided into two categories. One is called 'circumstances' and includes factors like family background, region of birth and gender. These are factor over which individuals have no influence. The other category they call 'efforts' and this consists of the results of an individual's choices. These are factors like education or type of work.

China has a high degree of inequality of opportunity. This is partly due to the Hukou system that has allowed economic advantage or disadvantage to be transmitted from one generation to the next. Zhang and Erikisson (2010) found that more than half of the inequality of income was caused by inequality of opportunity.<sup>12</sup>

Based on Zhang and Erikisson (2010), the evolution of both income Gini coefficient and opportunity Gini coefficient is shown in Figure 3. From this, it is clear that the increase in income equality largely follows an increasing inequality of opportunity. For example, when freedom of movement is allowed, rural populations can migrate to urban areas to increase their income and avoid the exploitation that frequently occurs in the countryside. However, in China this is difficult because of the Hukou system.

<sup>&</sup>lt;sup>12</sup> According to Zhang and Erikisson (2010), "the proportion of inequality in opportunity to inequality in income is 0.46, 0.49, 0.48, 0.57, 0.65 and 0.63 in the years 1989, 1991, 1993, 1997, 2000, 2004 and 2006, respectively".





Source: Income Gini from Chen et al (2010); opportunity Gini from Zhang and Erikisson (2010).

As discussed above, the rural–urban divide is mainly due to policy distortions which have restricted opportunities for rural people. People are not able to gain an urban Hukou or the right to stay in urban areas as permanent residents, even though they might have worked there for decades. The existence of these 'second generation migrants' clearly demonstrates the depth of discrimination in China. In comparison, were they to have migrated to another country and worked there for the same period of time, they would have been eligible for full citizenship.<sup>13</sup>

Government intervention can influence not only outcomes, but also opportunities. And where the government intervention has restricted opportunities, this may lead to strong feelings of dislike towards government actions in general. Whyte (2010b), in the Social Inequality and Distributive Justice Project, finds that in responding to survey questions, rural residents, who are typically poor and might be expected to be demanding greater equality, are in fact significantly less likely than those in urban areas to express demands for equality and for government intervention to make China a more egalitarian society. This might be because the main experience of the rural population is that government intervention has resulted in a series of policies which have widened the rural–urban divide and they are very mistrustful of further interference by the state.

# 4. Achieving equality and efficiency

The segregation caused by Hukou itself may not have mattered much if there had been equal investment in the rural areas and opportunities there had been developed. But this has not been the case, as discussed above, particularly in the areas of education, health, employment, pensions,

<sup>&</sup>lt;sup>13</sup> The UK, for example, has allowed permanent residency to be gained after legally working for five years, or lawful residence for 10 years.

etc. The reform has now reached a stage where there should be an emphasis on the importance of redressing past inequities in investment.

A trade-off is claimed by some, for example Prescott (2004), to exist in many developed countries, where the widespread provision of welfare not only reduces inequality, but also enhances the incentive to work and thus raises efficiency. This underlines the essential dynamics and rationale of the market. Differences in income would then be less likely to encourage workers, as factors of production, to move from inefficient sectors to more efficient ones. Thus, less redistribution from government can potentially encourage harder work and improve efficiency, but may be morally problematic and possibly cause social instability. At a certain stage, it is impossible to improve equality without harming efficiency.

It is claimed that the difficulties for China in achieving harmony and sustainable growth simultaneously lie in just such a trade-off, between efficiency and equality. However, this is not necessarily the case. There are some macroeconomic mechanisms by which efficiency and equality can be achieved simultaneously.

#### 4.1 Break the vicious circle of poverty traps

Our analysis indicates that, although market forces would result in some degree of rural–urban divide, the rural–urban divide and the associated inequity has increased, rather than reduced, due to government interventions. If this is correct, then the removal of government interventions should increase efficiency and reduce the rural–urban divide.

There might have been some poverty traps created by either the market or the government. Where there are poverty traps, even a small amount of intervention can help break the vicious circles. Spending on education and primary healthcare, and reducing taxes on those in such traps, is comparatively cheap and has the potential to be highly effective in raising productivity and output.

Although the tax revenue taken by the government from the rural poor was relatively small, for the individuals the burden was high and potentially could have a serious detrimental effect on people's vulnerability, by putting them into the vicious cycle of low net wealth/low investment. The small agricultural tax may have prevented many rural households from escaping from low productivity agriculture to high productivity.

A little investment in education would be able to break the low education trap. Many rural people have had hardly any education and this has been identified as a major mechanism for making inequality self-perpetuating. If rural people cannot educate their children well, then that group is likely to remain impoverished, and they will be trapped in the low-income group permanently.

Income losses due to illness and medical expenditure are major contributors to poverty. This, and the burden of environment-related diseases, falls disproportionately on the rural poor (Holdaway 2010). Addressing access to, and costs of, medical services for poor people and the environment-

related sources of disease will not only improve health, but also, via increases in productivity and output, contribute to poverty reduction and reduce inequality and the possibilities of social conflict.

#### 4.2 Recent policy changes and their implications

As analysed above, the current rural–urban divide is fundamentally caused by specific national policies, not by the operation of the market alone. That is, it is not based mainly on inequalities in productivity, but rather more on inequalities in investments and opportunities. Since most inequality in China is caused by unequal access to resources and the lack of equal opportunities (social exclusion and institutional segregation, such as the Hukou restrictions), progress towards more equal opportunities will provide further impetus for efficiency and growth. Thus, there is still space for Pareto improvements. Achieving harmony with sustainable growth in China may not be as hard as some might believe.

Recently, there have been some improvements in government policies to reduce distortions. For example, the agricultural tax, fees and administrative charges were waived across the country in 2006. Although there are still some small fees introduced by some local governments, rural residents' tax burden has been greatly reduced. Some basic healthcare programmes have been introduced in rural areas, and education investment is increasing. However, despite these improvements, both inequality and the rural–urban income gap are still increasing. This does not mean that the policies were not responsible for the inequality.

Rather, one might argue that this is indicative of the depth of existing disadvantage of rural people in terms of their capability to compete in the market and their vulnerability to risks. Policy has led to lower education and training and thus to less skilled labour in the rural areas, and current inequality is based on the legacy of the past. Rural areas have had very limited physical and human capital investment and that is what is driving the current divide. It will take far more than small investment to make a substantial difference.

In essence, we argue that when the divide is mainly caused by inequality in investment and opportunities, equality can be achieved without sacrificing efficiency. However, removal of the biased policies is not enough. More should be done to improve the competitiveness of the rural economy. Improving the infrastructure and social provision in rural areas and reducing discrimination would allow rural people to improve the dynamism of the rural economy.

# 5. Conclusions

China has been experiencing both an increasing inequality and a widening rural-urban divide for many years. This paper is among the first to discuss the extensive rural--urban divide by considering its multiple dimensions. It examines the discrimination against the rural sector and reveals the economic hardship of rural residents: those born to peasants were denied many fundamental freedoms and choices enjoyed by urban residents. Rural people had to pay a large amount of taxes while receiving little public investment, and were required to provide their own

public sector goods. Rural people have been treated in general as second class citizens and they could not avoid the exploitation they suffered, since their status was defined by their rural Hukou.

The rural–urban divide has developed within the context of the Hukou system, which divided the population in China into urban and rural groups and made it difficult to migrate to urban areas. However, Hukou only stops the long-run convergence of urban and rural incomes, it does not cause the rural–urban divide in the first place.

The rural–urban divide is a legacy of the heavy industry oriented development strategy, which was pursued in the pre-reform era, supported by the exploitation of rural agriculture. This was the case for many developing countries, but none to the extent that it occurred in China. Thus, the fundamental source of the divide is to be found in two things: the extraction of surplus from rural areas, and the lack of investment in infrastructure broadly defined in rural areas. This has resulted in different regimes for taxation and the social support offered to rural and urban populations. This resulted in differences in the lives and livelihoods of these two groups in several respects, which have only been exacerbated by institutional barriers to restrict labour mobility.

Some of the rise in inequality was almost inevitable as China introduced a market system, but inequality and the rural–urban divide have been exacerbated, rather than mitigated, by a number of policies. In addition to the urban biased growth strategy in the reform period, a worsening redistribution of income has been experienced in rural areas. While the tax and fees continued to be paid up to 2003-06, social provision has largely stopped. This withdrawal of the limited but vital support in the rural areas has increased the vulnerability of rural people and partly explains the increasing rural–urban gap in the reform period.

Although the rate of the increase in inequality has been slowing down, the level of inequality is still increasing. There is great urgency to address this issue, not only for the sake of political stability, but more importantly, for the ethical reason that China's further growth should not carry on being built on the exploitation of rural peasants.

The Chinese government started to explicitly address this issue in 2002, but the real impact of these policies has been limited. Many people advocate the abolition of the Hukou system, but this alone may not have a significant impact on reducing inequality, because it would not help if the rural poor moved and added to the stock of urban poor. Furthermore, the waiving of rural taxes and ensuring equality of opportunity alone may not be enough to energise the rural areas. More is needed than equal opportunities. Rather, to help overcome the burden resulting from previous distortions and discrimination in terms of investment, a more comprehensive healthcare, education and investment programme is necessary in rural areas. This may be achieved by the market alone, but will be faster and more effective if state intervention was not as distorted and more equality enhancing than has previously been the case.

# References

All-China Women's Federation, 2008, *The Research Report on Chinese Rural Left-behind Children* (*Quanguo nongcui liushou ertong zhuangkuang yanjiu baogao*). Beijing: Xinhua News Agency, 27 February.

Appleton, Simon, John Knight, Lina Song and Qingjie Xia, 2004. 'Contrasting paradigms: segmentation and competitiveness in the formation of the Chinese labor market'. *Journal of Chinese Economic and Business Studies*, 2(3), 185-205.

Bernstein, Thomas and Xiaobo Lu, 2000, 'Taxation without representation: peasants, the central and local states in reform in China', *The China Quarterly*, 163, 742-763.

Chang, G. H., 2002, 'The cause and cure of China's widening income disparity'. *China Economic Review*, 13 (4), 335-340.

Chen, Jiandong, Dai Dai, Ming Pu, Wenxuan Hou and Qiaobin Feng, 2010, 'The trend of the Gini coefficient of China'. Manchester: *BWPI Working Paper*, 109.

China State Council, 2006, *The Research Report on Chinese Rural–urban Migrants (Zhongguo Nongmingong Diaoyan Baogao)*. Beijing: China Yanshi Publishing House.

Dong, Keyong, 2009, 'Medical insurance system evolution in China' *China Economic Review*, 20 (4), 591-597.

Eastman, R. and M. Lipton, 2004, 'Rural and urban income inequality and poverty: does convergence between sectors offset divergence within them?' in G. A. Cornea (ed.), *Inequality, Growth and Poverty in an Era of Liberalization and Globalization* (pp. 112-1410. Oxford: Oxford University Press.

Fan, C. Cindy, 2008, 'Migration, Hukou, and the Chinese city,' in Shahid Yusuf and Anthony Saich (eds.), *China Urbanizes: Consequences, Strategies, and Policies* (pp. 65-90). Washington DC: World Bank Publications.

Guomin Jingji, 2005. *Guomin Jingji He Shehui Fazhan 'Shiyiwu' Guihua Ruogan Wenti Xuexi Wenda* ('People's Economic and Social Development "11th Five-Year Plan" Study Questions and Answers'). Beijing: Xinhua Chubanshe (Xinhua Publishing House).

Gustafsson, Björn and Shi Li, 1997, 'Types of income and inequality in China at the end of the 1980s'. *Review of Income and Wealth*, 43(2), 211–226.

Gustafsson, Björn, Shi Li and Terry Sicular (eds.), 2008, *Income Inequality and Public Policy in China Inequality and Public Policy in China*. New York: Cambridge University Press.

Holdaway, Jennifer, 2010, 'Environment and health in China: an introduction to an emerging research field', *Journal of Contemporary China*, 19(63), 1-22

Imai, Katsushi, Xiaobing Wang, and Woojin Kang, 2010, 'Poverty and vulnerability in rural China: effects of taxation' *Journal of Chinese Economic and Business Studies*, 8(4): 399-425.

Johnson, Gale, 2002, 'Have the urban-rural disparities increased since 1978 in China?' *Jijixue Jikan* (in Chinese, *China Economic Quarterly*), 1(3), 553-562.

Knight, John and Lina Song, 1999. *The Rural–Urban Divide: Economic Disparities and Interactions in China*. Oxford: Oxford University Press.

Knight, John and Lina Song, 2005, *Towards a Labor Market in China*. New York: Oxford University Press

Knight, John, Shi Li, and Lina Song, 2006, 'The rural–urban divide and the evolution of political economy in China', in J. Boyce, S. Cullenberg, P. Pattanaik and R. Pollin (eds.), *Human Development in the Era of Globalisation. Essays in Honor of Keith B. Griffin* (pp. 44-63). Northampton, MA: Edward Elgar.

Kwan, Fung, 2009, 'Agricultural labor and the incidence of surplus labor: experience from China during reform', *Journal of Chinese Economic and Business Studies*, 7(3), 341-361.

Lewis, W. Arthur, 1954, 'Economic development with unlimited supplies of labor'. *The Manchester School*, 28(2), 139-191.

Li, Shi, 2003. 'A review of income inequality in China'. *Jijixue Jikan* (in Chinese, *China Economic Quarterly*) 2(2), 309–404.

Lin, Justin Yifu, 1990, 'Collectivization and China's agricultural crisis in 1959-1961'. *Journal of Political Economy*, 98(6), 1228-1252.

Lin, Justin Yifu, Fang Cai and Zhou Li, (1996), *The China Miracle: Development Strategy and Economic Reform.* Hong Kong: Chinese University Press

Lin, Justin and P. Liu, 2008, 'Achieving equity and efficiency simultaneously in the primary distribution stage in the People's Republic of China'. *Asian Development Review*, 25(1, 2), 34-57.

Lora-Wainwright, Anna, 2010, 'An anthropology of "cancer villages": villagers' perspectives and the politics of responsibility', *Journal of Contemporary China*, 19(63),79-99.

McCarthy, F. D. and K. Zheng, 1996, *Population Aging and Pension Systems: Reform Options for China*. Washington, DC: World Bank.

National Bureau of Statistics of China (NBS), (eds.), various years, *China Statistic Yearbook*. Beijing: China Statistics Press.

Park, Albert, 2008, 'Rural–urban inequality in China', in Shahid Yusuf and Anthony Saich (eds), *China Urbanizes: Consequences, Strategies and Policies* (pp. 41-64). Washington, DC: World Bank Publications.

Prescott, Edward C., 2004, 'Why do Americans work so much more than Europeans?' *Federal Reserve Bank of Minneapolis Quarterly Review*, 28(1), 2-13.

Ravallion, Martin and Shaohua Chen, 2007. 'China's (uneven) progress against poverty'. *Journal of Development Economics*, 82(1),: 1-42.

Roemer, J., 1998, *Equality of Opportunity*. Cambridge, MA: Harvard University Press.

Rutten, K., 2010, 'Social welfare in China: the role of equality in the transition from egalitarianism to capitalism'. Copenhagen Business School, Working Paper 32.

Salanie, Bernard, 2003, The Economics of Taxation. Cambridge, MA: MIT Press.

Sicular, Terry, Ximing Yue, Björn Gustafsson and Shi Li, 2007, 'The urban–rural income gap and inequality in China', *Review of Income and Wealth*, 53(1), 93-126.

Sicular, Terry, Ximing Yue, Björn Gustafsson and Shi Li, 2010, 'How large is China's rural–urban income gap?' in Martin King Whyte (ed.), *One Country, Two Societies: Rural-Urban Inequality in Contemporary China*. Cambridge, MA: Harvard University Press.

Tao, Ran and Mingxing Liu, 2005, 'Urban and rural household taxation in China. Measurement, comparison and policy implications'. *Journal of the Asia Pacific Economy*, 10(4), 485-505.

Taylor, John G., 2008. 'Poverty and vulnerability', in Shahid Yusuf and Anthony Saich (eds), *China Urbanizes: Consequences, Strategies, and Policies* (pp. 91-104). Washington DC: World Bank Publications.

Wang, Xiaobing and Jenifer Piesse, 2008 'Labor market segregation and integration in China: a spatial and sectoral analysis, 1988-2002', KCL Department of Management Research Paper Series, No. 51.

Wang, Xiaobing and Jenifer Piesse, 2010, 'Inequality and the urban-rural divide in China: effects of regressive taxation', *China and World Economy*, 18(6), 36-55.

Whyte, Martin King, 2010a, 'The paradoxes of rural–urban inequality in contemporary China', in Martin King Whyte (ed.), *One Country, Two Societies: Rural-Urban Inequality in Contemporary China*. Cambridge, MA: Harvard University Press.

Whyte, Martin King, 2010b, 'Do Chinese citizens want the government to do more?' in Peter Hays Gries and Stanley Rosen (eds.), *Chinese Politics: State, Society and the Market,* New York: Routledge.

Whyte, Martin King and Zhongxin Sun, 2010, 'The impact of China's market reforms on the health of Chinese citizens: examining two puzzles'. *China: An International Journal*, 8,1-32.

Yang, Dennis Tao and Fang Cai, 2003, 'The political economy of China's rural–urban divide' in Nick Hope, Dennis T. Yang and Mu Yang (eds.), *How Far Across the River? Chinese Policy Reform at the Millennium* (pp. 389-416), Stanford, CA: Stanford University Press:.

Zhang, Yingqiang and Tor Erikisson, 2010, 'Inequality of opportunity and income inequality in nine Chinese provinces, 1989–2006', *China Economic Review*, 21(4), 607-616.

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