Inequality and Poverty in Rural China

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I. Introduction

The rural sector has featured prominently in China's policy agenda since the change in leadership in the early 2000s. For each of the seven consecutive years from 2004 through 2010 the State Council's No. 1 Central Document addressed rural policies. As the first policy communiqué of the year, these documents are indicative of the high priority placed on the rural sector (Xinhua 2008, 2010), and they have introduced an array of policy initiatives, such as the "New Socialist Countryside" program.

Key rural policies during this period have included the elimination of agricultural taxes and fees, government subsidies for agricultural production, public investments in rural infrastructure, extension of the minimum living guarantee program (*dibao*) to rural areas, the rural cooperative healthcare scheme, and the expansion of universal, free nine-year public education (Chen 2009, 2010). In addition, the government has implemented measures to ease restrictions on rural-urban mobility and to improve work and living conditions for migrants (Cai, Du, and Wang 2009).

The recent emphasis on the rural sector reflects two national concerns: the widening gap between urban and rural incomes and the slow growth of agricultural production. The growing gap between urban and rural incomes has been noted in numerous studies and has been a major factor contributing to the secular increase in income inequality (Gustafsson, Li, and Sicular 2008; Li, Luo, and Sicular in this volume). The welfare of the rural population has lagged behind that of the urban population, not only in terms of income but also in other areas, such as health,

education, and social support (Whyte 2010).

Agricultural production has experienced ups and downs, with implications for both the supply of food and rural incomes. Trends in grain output, of particular concern to the central government, are indicative. After reaching peak levels in 1998-99, China's grain production fell markedly and in 2003 it was at its lowest level in more than a decade. This drop was associated with declining prices for key farm products, to some extent a byproduct of the trade liberalization leading up to and following China's accession to the World Trade Organization (WTO) (Huang et al. 2007). These price trends affected growth in rural household earnings from agriculture, a major source of income for rural households (Gale, Lohmar, and Tuan 2005; Khan and Riskin 2008).

In this chapter we document changes in rural household incomes and inequality from 2002 to 2007, a period of renewed emphasis on rural policy. We use data from the 2002 and 2007 CHIP rural household surveys, and make comparisons to findings reported in studies based on previous rounds of the CHIP rural survey.

We begin by examining changes in the level of per capita household income. As noted in other chapters in this volume, between 2002 and 2007 China's urban-rural income gap widened. Was this expansion of the urban-rural gap the result of stagnation in rural household incomes? Our answer is no. We find that rural incomes grew substantially, and at a more rapid pace than during the preceding period. Moreover, this income growth was relatively balanced, reflecting increases in income from both agriculture and off-farm employment and other sources. Therefore, the

widening of the urban-rural income gap between 2002 and 2007 was the result of even more rapid growth in urban incomes, rather than the result of stagnation in rural incomes.

Second, we analyze changes in inequality within the rural areas. China's countryside is large and diverse, characterized by differing economic conditions and opportunities. Some policies have targeted poorer rural areas and groups; others have not. We find that, on balance, rural inequality increased only slightly during this period. The lack of deterioration in inequality reflects the fact that rural income growth during this period was widely shared.

Third, we analyze changes in rural poverty. As measured against an absolute poverty line, the poverty rate and poverty gap declined substantially. We find, however, that for those remaining poor, extreme poverty has increased. In addition, we find no improvement in relative poverty, as measured in relation to median income rather than an absolute poverty line.

How do these trends in income and poverty relate to recent rural policies? Although a full analysis of this question is beyond the scope of this chapter, we use available information in the CHIP datasets to investigate the impact of several key policies. In the sections that follow we examine the distribution of income from migrant employment, the effects of reductions in government taxes and fees, and the relationship between poverty and participation in the *dibao* program.

II. Data and Methods

In our analysis we use the 2002 and 2007 CHIP rural household survey data. In 2007 the CHIP rural survey covered 16 provinces, 13,000 households, and 51,847 individuals. The 2002 CHIP covered fewer households and individuals, but more provinces—9,200 households and 37,969 individuals from 22 provinces. Fifteen provinces (Beijing, Hebei, Shanxi, Liaoning, Jiangsu, Zhejiang, Anhui, Henan, Hubei, Hunan, Guangdong, Chongqing, Sichuan, Yunnan, and Gansu) were covered in both years, seven provinces (Jilin, Jiangxi, Shandong, Guangxi, Guizhou, Shaanxi, and Xinjiang) only in 2002, and one (Fujian) only in 2007. Some incomplete and missing data slightly reduce the number of observations used in our analyses.

In our calculations we include all provinces for both years. Except where noted otherwise, all calculations are done using two-level regional and provincial weights; consequently, the results should be nationally representative for both years despite the coverage of different provinces.[1] We note that the weighting approach used here improves upon that used in earlier analyses of the CHIP rural data.

For growth across the two years, we report results calculated in constant prices using the national rural consumer price index compiled by the National Bureau of Statistics (NBS). In some calculations we also adjust for differences in the cost of living among the provinces, using the price indices from Brandt and Holz (2006) and extended to 2007 using the annual provincial rural consumer price indices from the NBS. We refer to estimates adjusted for differences in provincial costs of living as Purchasing Power Parity (PPP) estimates.

As mentioned in other chapters, two income definitions are commonly used in

analyses of China's income distribution. One is the NBS measure of household per capita net income. The other is a broader measure of household per capita net income that is used in the earlier CHIP studies (Gustafsson, Li, and Sicular 2008; Khan and Riskin 1998; Khan et al. 1992). The main difference between these two measures is that the latter includes imputed rents on owner-occupied housing and, compared to the former, has a fuller accounting of income subsidies. In the context of the rural sector where households have received few subsidies, the major difference between these two income measures is imputed rent. Our measure of income in this chapter is equal to the NBS income plus the imputed rent; below we refer to this as "the CHIP measure of income." Our estimates of imputed rents are taken from Sato, Sicular, and Yue, in Chapter 4 of this volume. For purposes of comparison, we present some results for both the NBS and CHIP measures of income.

III. Trends in Rural Incomes

Table 6.1 shows the mean values of income per capita calculated using the CHIP rural survey data. Overall, these income levels are consistent with the published NBS statistics on rural incomes based on its annual rural household surveys. If we use the NBS definition of income, in both years the weighted mean incomes calculated using the CHIP rural survey data are higher than, but within 5 percent of, the published NBS figures. The CHIP data also yield growth rates in real per capita income, measured using the NBS definition of income, that are close to those published by the NBS -- about 7 percent average annual growth. Including imputed rents increases the level

of per capita income and also the rate of income growth. Hereafter, we carry out our analysis using the CHIP income definition, except where otherwise noted.

[insert Table 6.1 about here]

The estimates in Table 6.1 show that real growth in rural incomes between 2002 and 2007 was fairly rapid, averaging 7.5 percent annually. Much of this income growth was due to increased earnings from agriculture and migrant employment. Table 6.2 shows the composition of income during the two years. By 2007 wage income, including that from both migrant and local employment, accounted for 36 percent of per capita rural household income. Wage earnings from migrant work increased very rapidly -- at 19 percent per year. Wage earnings from local employment increased more slowly but at the still respectable rate of 6 percent a year.

In 2007 agriculture contributed 36.6 percent of income. Although the share of agriculture to total income declined slightly from 2002, agricultural income nevertheless showed strong growth of 8 percent per year, rebounding from slower growth of only 1.2 percent a year between 1995 and 2002 (Khan and Riskin 2008, p. 63). Moreover, in absolute terms agriculture contributed the largest share of the overall income increment between 2002 and 2007 (the last two columns of Table 6.2). These positive trends in agricultural income are consistent with the pro-agriculture policies adopted at the time, but we are unable to distinguish the effects of these policies from other factors, such as improved farm prices and technological change.

Income from household nonagricultural businesses, transfers, and property all grew to greater or lesser extents. As a share of total income, earnings from

nonagricultural businesses declined slightly, whereas asset income and imputed rents on owner-occupied housing increased. By 2007 income from these two latter sources accounted for 11 percent of total income, signaling the emergence of assets as a significant component of income in rural China.

[insert Table 6.2 about here]

Net transfer income, which includes public transfers net of taxes as well as private transfers, increased in absolute terms, as one might expect given the new subsidy programs and the reduction in taxes and fees at the time. Still, they remained a relatively small component of total income. We note that some government programs that were adopted in the 2000s operated indirectly by reducing household outlays on education, health, and production, or by increasing net income from farming, rather than explicitly through "transfer" income.

IV. Trends in Rural Inequality

Tables 6.3 and 6.4 show our estimates of rural inequality in 2002 and 2007. Table 6.3 reports estimates of the Gini coefficient calculated with and without imputed rents from owner-occupied housing. Our estimates of the Gini calculated using the NBS income definition (excluding imputed rents), shown in the last row of Table 6.3, are similar to those published by the NBS. For both years these two Gini estimates differ by less than 3 percent. In both cases the Gini coefficients increased between 2002 and 2007. The increase is larger for the official NBS statistics but is still modest, i.e., less than 3 percent.

Including imputed rents slightly reduces inequality and also slightly reduces the change in inequality. The mildly equalizing effect of imputed rents reflects their relatively equal distribution due to almost universal homeownership in rural China (see Sato, Sicular, and Yue, in Chapter 4 in this volume).

Spatial differences in the cost of living have led to an overstatement of measured inequality for China as a whole (Brandt and Holz 2006; Sicular et al. 2007). We therefore present estimates of the rural Gini coefficient after adjusting for the spatial price differences. Our estimates of PPP inequality are shown in the last three columns of Table 6.3. We find that the PPP adjustment has a trivial effect on the measured levels of inequality and that the change in the Gini between 2002 and 2007 remains modest. We conclude that cost of living differences within the rural sector are not important to our analysis. Consequently, hereafter we do not adjust for spatial price differences.

[insert Table 6.3 about here]

Our preferred estimates of the Gini, calculated using the CHIP income definition, show little change in inequality over the two years: 0.354 for 2002 and 0.358 for 2007. We conclude that inequality in rural China remained low and relatively stable throughout this period. Even the highest estimates in Table 6.3 are well below 0.4, and changes in the level of inequality for all estimates between 2002 and 2007 are minimal.

[insert Table 6.4 about here]

Alternate inequality indices yield similar findings (Table 6.4). The Coefficient of

Variation and Mean Log Deviation increase only slightly between 2002 and 2007, whereas the Theil index decreases trivially. These estimates are consistent with the overlapping Lorenz curves for the two years.

Table 6.4 also shows estimates of the range, calculated as the ratio of the mean incomes of the richest and poorest groups in the income distribution. The range shows more change between 2002 and 2007 than the other inequality indices, and the change is greater when the cutoff for the top and bottom income groups is more extreme. The range for the top 20 percent versus the bottom 20 percent increased 4 percent, whereas that for the top 5 percent versus the bottom 5 percent increased a marked 25 percent. In 2002 the richest 5 percent of rural households enjoyed sixteen times, and in 2007 twenty times, the per capita income of the poorest 5 percent of rural households. Thus, although inequality overall was relatively stable, the gap between the very low and very high extremes widened.

An examination of income growth for each five percentile group in the income distribution provides more detailed information about the changes in income distribution (Figure 6.1). Except for the poorest five percentile group, income growth between 2002 and 2007 was in the 9 to 10 percent range, with a mild positive correlation between growth and income. Although income growth for the poorest 5 percentile group lagged, it was still a substantial 7.5 percent.

[insert Figure 6.1 around here]

To explore the contribution of the different income sources to inequality, we decompose the Gini coefficient by its source components (Stark, Taylor, and Yitzhaki

1986; Adams 1999). If the total income is composed of *k* components, that is, $Y = \sum_k Y_k$, then the Gini coefficient of total income *G(Y)* can be expressed as the sum of the contributions S_k of each income source

$$G(Y) = \sum_k S_k = \sum_k w_k G(Y_k) R_k \quad (1)$$

Here $w_k = \frac{\bar{Y}_k}{\bar{Y}}$ is the share of source k income in total income, $G(Y_k)$ is the Gini coefficient measured over income from source *k*, and R_k is the rank correlation between income from source *k* and total income, that is,

$$R_k = \frac{cov(Y_k, F(Y))}{cov(Y_k, F(Y_k))} , \quad (2)$$

where *F(.)* is the cumulative distribution of total household income or income from source *k* in the sample.[2]

The share of income component *k* in total inequality can then be written as

$$s_k = \sum_k w_k \frac{G(Y_k) R_k}{G(Y)} = \sum_k w_k c_k . \quad (3)$$

In equation (3) c_k, the relative concentration coefficient, is of particular interest, as it indicates whether an income source is inequality-increasing or inequality-decreasing. A value of c_k greater than one indicates that income from this source is inequality-increasing; a value of less than one indicates that it is inequality-decreasing.

Table 6.5 provides estimates of c_k (in the middle two columns) and of s_k (in the last two columns). These estimates reveal how different sources of income affected overall inequality in rural China. Agriculture, with the lowest relative concentration coefficient in both years, remained the most equalizing income component. The rise

in agriculture's c_k between 2002 and 2007 implies that the extent to which agriculture was equalizing declined. Incomes from migrant wages and imputed rent on owner-occupied housing were also equalizing.

Net transfer income was mildly dis-equalizing in 2002, but by 2007 it had a neutral effect on income inequality, possibly reflecting the elimination of taxes and fees as well as government transfers to poorer households. Since we cannot separate public from private transfers, and since the government subsidies for agriculture enter income through their influence on net income from agriculture, changes in the distribution of net transfer income do not fully capture the effects of such policies on inequality.

All other sources of income were dis-equalizing in both years, although in most cases they became less dis-equalizing between 2002 and 2007. The most dis-equalizing sources of income were asset income and income from nonagricultural household businesses.

[insert Table 6.5 about here]

The last two columns in Table 6.5 show the contributions of different sources of income to overall inequality. The size of the contribution depends on both the relative concentration coefficient c_k and the share of income u_k. In 2007 agriculture contributed about a quarter of total inequality, a slight increase from 2002. This large contribution reflects agriculture's substantial share of total income.

Wage earnings from local employment also contributed about a quarter of overall inequality in 2007. This was a substantial drop from 2002, when local wages

contributed more than one-third of the inequality. The contribution of wages from migrant employment was relatively low in both years, reflecting its fairly equal distribution. The contribution increased substantially between 2002 and 2007, however, due to its rising share of household income.

The combined contributions of asset income and imputed rent on owner-occupied housing grew from 7 percent in 2002 to 12 percent in 2007. If this trend continues, income from financial and real assets will match or even surpass nonagricultural businesses in terms of its importance to rural inequality.

V. Changes in Rural Poverty

During China's economic transition poverty in rural China declined dramatically. According to the NBS, in 2007 the rural poverty rate was only 1.6 percent, down from 30.7 percent in 1978 (Department of Rural Surveys 2008). These trends are measured using China's official poverty lines, which many observers believe to be low (e.g., Poverty Reduction and Economic Management Division 2009). Using a higher poverty line yields a higher poverty rate, but it does not change the conclusion that in recent decades rural China has witnessed substantial poverty reduction (Ravallion and Chen 2007; Poverty Reduction and Economic Management Division 2009).

In view of the various poverty lines used in the literature, we present alternative estimates, two using absolute poverty lines and two using relative poverty lines. In all cases we use the NBS measure of income, which does not include imputed rents on

owner-occupied housing. These are excluded because the official poverty lines are set without reference to imputed rents; therefore, including them would artificially reduce the poverty rates.

The first absolute poverty line is the widely used international purchasing power parity (PPP) poverty threshold of PPP$1.25 per day per person, which we convert to yuan using the recently updated PPP exchange rate of 3.46 yuan to the US dollar in 2005 (Chen and Ravallion 2008). The second is the Chinese government's official poverty line. In view of past criticisms of the official poverty line, we use the new, higher 2008 official poverty line of 1196 yuan. We adjust both of these poverty lines to their 2002 and 2007 levels using the NBS rural consumer price index.

Relative poverty lines are commonly applied for measurements of poverty in higher-income countries, where few households experience absolute deprivation but where individuals at the lower end of the income distribution nevertheless may be disadvantaged (Osberg 2000; Ravallion 1992). In view of China's rapid growth over the past decades, we believe the concept of relative poverty is increasingly relevant. Following common practice in the literature, we use a relative poverty line equal to 50 percent of the median income, and also use a higher alternative relative poverty line of 60 percent of the median income. Median income is calculated using the weighted rural CHIP sample incomes for each of the two years.

Table 6.6 shows our four poverty lines. Due to growth in rural incomes between 2002 and 2007, the ratio of the absolute poverty lines to mean sample income fell substantially between these two years. For the relative poverty lines, the ratios

remained essentially constant.

[insert Table 6.6 about here]

Using these poverty lines we calculate the level of poverty. Consistent with the literature, we adopt the approach developed by Foster, Greer, and Thorbecke (1984), which yields the common poverty headcount as well as estimates of the poverty gap. The Foster-Greer-Thorbecke (FGT) index can be written as

$$FGT(\alpha) = \frac{1}{N}\sum_{i=1}^{q}\left(\frac{z-Y_i}{z}\right)^{\alpha} \quad (4)$$

where N is the size of the total population, q is the size of the poor population, z is the poverty line, and Y_i is the income of individual i. This index calculates the poverty gap $g_i = z - Y_i$ for each individual under the poverty line, which is then divided by the level of the poverty line and raised to the power α. The parameter α can be interpreted as the degree of poverty aversion: the larger the α, the greater the degree of poverty aversion.

Conveniently, when $\alpha = 0$, FGT(0) is simply the headcount ratio (the proportion of the population that is poor). FGT(1) gives the average poverty gap, which measures the average percentage income shortfall below the poverty line of the poor. FGT(2) is the squared poverty gap, which places more weight on the income shortfall of the extreme poor than that of the near poor who are close to the poverty line. These three poverty measures capture the incidence, depth, and severity of poverty, respectively (Ravallion 2004).

Table 6.7 shows estimates of these three poverty measures calculated for each of the alternative poverty lines. The level of poverty and the change in poverty

between 2002 and 2007 differ depending on the choice of poverty line. For the absolute poverty lines, the poverty headcount declines substantially between 2002 and 2007: for the PPP$1.25 per day poverty line, the poverty headcount FGT(0) drops by more than half, from 27 percent to 14 percent, and for the official poverty line, the headcount declines from 11 percent to 6 percent.

[insert Table 6.7 about here]

For the relative poverty lines, the poverty headcount remains almost unchanged between 2002 and 2007. For example, relative to 50 percent of the median income the poverty headcount increased slightly from 13.7 to 14.3 percent. This suggests that although the income of the poor grew enough between 2002 and 2007 to raise roughly half of the poor above absolute poverty, this income growth was not sufficient to catch up with median income.

Results for the poverty gap FGT(1) also differ between the absolute and relative poverty lines. For the former, the poverty gap decreased between 2002 and 2007, and for the latter it increased. Results for the squared poverty gap are consistent for the four poverty lines: in all cases, the severity of poverty as measured by FGT(2) increased. These findings suggest that between 2002 and 2007 the near-poor—those near the absolute poverty lines—saw income growth and escaped poverty, but the incomes of the extreme poor lagged. Consequently, the remaining poor in 2007 can be characterized by a greater degree of severe poverty.

To what extent do these poverty trends reflect the results of income growth rather than redistribution between richer and poorer groups? As noted above, on average

rural incomes grew substantially between 2002 and 2007. Did this rising tide raise the boats of the poor? Two methods commonly used to differentiate between the impact of growth as opposed to redistribution are those of Datt and Ravallion (1992) and Shorrocks (1999). We have used both methods, which yield similar results, so here we report only the results of the Shorrocks approach.

The level of poverty P is determined by the poverty line z, the mean income $\bar{Y}$, and the cumulative distribution of income as measured by the Lorenz curve *L(p)*, which gives the share of income going to the bottom *p* percent of the population. Let the subscript *t* denote time. Then, change in the level of poverty from time 0 to time t can be expressed as

$$\Delta P = P(\mu_t, L_t(p), z) - P(\mu_0, L_0(p), z) \quad . \tag{5}$$

According to Shorrocks (1999), change in the level of poverty can be decomposed into the growth effect *(G)* and the redistribution effect *(R)* as follows:

$$G = 0.5 * \{[P(\mu_t, L_0(p), z) - P(\mu_0, L_0(p), z)] + [P(\mu_t, L_t(p), z) - P(\mu_0, L_t(p), z)]\} \tag{6a}$$

$$R = 0.5 * \{[P(\mu_t, L_t(p), z) - P(\mu_t, L_0(p), z)] + [P(\mu_0, L_t(p), z) - P(\mu_0, L_0(p), z)]\} \tag{6b}$$

Note that the growth effect (6a) is calculated as the change in poverty that results from the observed change in mean income, holding the distribution and poverty line constant. The redistribution effect (6b) is calculated as the change in poverty that results from the observed change in the distribution of income, holding mean income and the poverty line constant. In both cases, the effects are calculated as the average of the values obtained from holding the other variables constant at their 2002 values and their 2007 values.

[insert Table 6.8 around here]

Table 6.8 reports the results of the decomposition calculated using the two absolute poverty lines. In all but one case income growth reduced poverty. The largest effect of growth was on the poverty headcount. Indeed, the measured reduction in China's rural poverty headcount was due entirely to income growth. In contrast, in all cases redistribution increased poverty, although for the poverty headcount and the poverty gap the effect was relatively small. For the squared poverty gap FGT(2) the redistribution effect was larger and the main reason for increases in this measure of poverty.

These findings reveal the importance of across-the-board income growth for reductions in the number of rural poor and the poverty gap. Growth alone, however, has not been sufficient to reduce the severity of poverty as measured by the squared poverty gap. The fact that redistribution in all cases has been poverty-increasing indicates that recent government transfer programs meant to benefit lower income areas and households have not, on balance, been sufficient to generate a poverty-reducing redistribution of income between higher and lower income groups.

The structure of income differs between the poor and non-poor. Tables 6.9 and 6.10 show the composition of income for these two groups in 2002 and 2007, calculated using the PPP$1.25 per day poverty line. In both years agriculture remained the most important source of income for the poor. The poor received a large but declining share of their income from agriculture—61 percent in 2002 and 54 percent in 2007. In comparison, the non-poor received about 40 percent of their

income from agriculture in both years.

For the non-poor, wage earnings were as important as agricultural income and in both years contributed roughly 40 percent of income. Furthermore, for the non-poor wages from local employment were more important than wages from migrant work, although the gap between these two types of wage income shrank in 2007. For the poor, wages were a less important, although still significant, source of income, contributing 29 percent of income in 2002 and 34 percent in 2007. Nearly half of the wage income of the poor was from migrant employment, which suggests either that the poor tend to live in areas with fewer local job opportunities than the areas where the non-poor live, or that they do not fare as well in local job markets.

[insert Table 6.9 about here]

Nonagricultural businesses were a significant source of income for the non-poor, but contributed a small and declining share of income for the poor. Net transfer income was relatively small for both groups, although for the poor it increased from 4 percent of income in 2002 to 7 percent in 2007. This could reflect the impact of the *dibao* program (see Section VIII below). Income from assets increased for both the non-poor and the poor, but remained a relatively small share of income. Since our poverty calculations are done using the NBS income definition, the breakdown of income shown in Table 6.9 does not include imputed rents on owner-occupied housing.

[insert Table 6.10 about here]

Table 6.10 provides additional information about the difference in income

between poor and non-poor households. In both 2002 and 2007 wage earnings, including those from local and migrant employment, accounted for more than 40 percent of the difference in income between these two groups. The importance of migrant wages increased, whereas that of wages from local jobs declined. Agricultural income contributed more than 30 percent of the income difference. Income from transfers and assets accounted for relatively small portions of the income gap.

VI. Migration and Rural Incomes

China's economic reforms have led to an ongoing and substantial flow of rural workers seeking migrant work in the cities. Although migration was already substantial before the change in leadership in the early 2000s, policies adopted since 2000 have more actively supported rural migration. Central government policies include programs to improve employment and living conditions for migrants, as well as some loosening of the residence registration (*hukou*) regulations (Cai, Du, and Wang 2009).

With these policy measures has come growth in the number of migrants. As depicted in Figure 6.2, by 2006 the number of migrants reached about 130 million, equivalent to 26 percent of the rural labor force and up from about 50 million (less than 15 percent of the rural labor force) in 1999 (Sheng 2008).

[insert Figure 6.2 about here]

There are different ways to explore the effects of migration on rural incomes,

inequality, and poverty, and there are also different criteria for identifying migrants, including, for example, by work place, time outside the household, and so forth. Here our focus is on the level and distribution of rural household per capita incomes, and therefore we are concerned with that portion of rural household income that is derived from migrant work by members of rural households. We use data in the CHIP surveys on household labor earnings from migrant employment as the identifier. Households that report labor earnings from migrant employment are identified as migrant households; households with zero labor earnings from migrant labor are identified as non-migrant households. This approach differs somewhat from that used in other studies, many of which examine individuals.

Our measure of income from migration is wage earnings from migrant employment. Income from migration perhaps should also include remittances from family members who are no longer resident in the household and income from household nonagricultural businesses that operate in a location different from the place of residence. Unfortunately, the CHIP data do not provide separate information on these types of migrant income. The former is included in the nonagricultural business income, and the latter in the transfer income.

As discussed above, the CHIP data clearly show the growing importance of income from migrant employment between 2002 and 2007, especially for non-poor households. Moreover, this source of income remained equalizing in both years.

Figures 6.3 and 6.4 provide additional information about the distribution of migrant wages and employment. Figure 3 shows the percentage of households that

report wage earnings from migration, by decile of the distribution of income. These percentages can be interpreted as household participation rates in migrant employment. In 2002 33 percent of rural households participated in migrant employment. By 2007, participation rose by 10 percentage points to 41 percent. In 2002 participation in migrant employment was distributed evenly across the income deciles, but by 2007 growth in migrant participation went disproportionately to middle-income groups. The share of wages from migration in total household income (Figure 6.4) shows a similar pattern. Thus in 2007 migrant employment and earnings were especially important to middle-income rural households.

[insert Figures 6.3 and 6.4 about here]

Participation in migrant employment differed markedly across provinces (Table 6.11). In 2007 provincial participation rates ranged from a low of 15 percent in Shanxi to a high of 63 percent in Hubei, Chongqing, and Sichuan. Changes over time also differed among the provinces. Participation in migration rose sharply in Hebei, Henan, Hubei, Hunan, Chongqing, Sichuan, and Gansu, but declined in Liaoning, Zhejiang, Anhui, and Yunnan.

[insert Table 6.11 about here]

Lagging participation by the poorer deciles, as shown in the above figures, raises questions about whether migration contributed to a reduction in poverty. Analyzing the contribution of migration to poverty reduction is difficult, as migration has multiple direct and indirect effects on income (Poverty Reduction and Economic Management Division 2009). Also, poor households may be less able to migrate due

to lack of resources and networks, thereby rendering the relationship between migration and poverty bidirectional (Poverty Reduction and Economic Management Division 2009).

Nevertheless, some simple statistics in Table 6.12 provide an indication of the relationship between migration and poverty.[3] In 2002 the poverty rates for individuals in migrant and non-migrant households were similar—about 26-28 percent. In other words, individuals living in households without migrant earnings were no more likely to be poor than those living in households with migrant earnings. Moreover, the share of poor living in households without migrant earnings was similar to the share of the total rural population in such households.

[insert Table 6.12 about here]

By 2007 poverty rates had declined for both households with and without migrant earnings, but more so for households with migrant earnings. Consequently, in 2007 the poverty rate for migrant households was lower than that for non-migrant households; also, a higher share of the poor—nearly two-thirds—was living in households without migrant earnings. These statistics are consistent with a scenario in which migration contributes to poverty reduction and where those who remained below the poverty line in 2007 were disproportionately in households that did not have migrant income. Thus the relationship between migration and poverty has apparently changed over time.

VII. The Elimination of Taxes and Fees

In 2005 the Chinese government announced the abolition of agricultural taxes,

effective January 1, 2006 (Xinhua 2005). This announcement was the final step in the "rural tax-and-fee reforms" that were initiated in the 1990s. As discussed in Sato, Li, and Yue (2008), since 2000 the Chinese government has carried out a comprehensive reform of agricultural taxes and fees. During the first phase of this reform (2000 to 2003), informal local levies were replaced by formal taxation (*feigaishui*). During the second phase (2004 to 2006), as part of its goal of eliminating agricultural taxes, the government implemented a program of gradual tax reductions and experimented with the full abolition of agricultural taxes in some regions (Sato, Li, and Yue 2008; Xinhua 2005). As of January 1, 2006, the abolition of agricultural taxes was to be completed nationwide.

Using earlier rounds of the CHIP rural data, Sato, Li, and Yue (2008) analyze the distributional effects of the tax-and-fee reforms through 2002. Here we examine the changes between 2002 and 2007. In 2002 the tax-and-fee reforms were ongoing, with implementation varying regionally. In 2007 agricultural taxes and fees had been eliminated nationwide, at least in principle. The 2007 CHIP data allow us to verify whether or not, from the perspective of rural households, this goal was achieved.

As discussed in Sato, Li, and Yue (2008), rural households in China have paid a variety of taxes and fees. The CHIP rural data for 2007 contain a single "total" value of taxes and fees paid by the household, including both formal taxes paid to the state as well as levies and fees collected by the village and township. We do not have information on the composition of this total. Also, the reported taxes and fees do not

include contributions of unpaid labor. Historically, an important component of rural taxation was in-kind taxation in the form of contributions of unpaid labor. This form of taxation was also eliminated as part of the rural tax reforms. We cannot examine it here due to lack of data for 2007, but the 2002 CHIP data indicate that this form of taxation had already been substantially reduced by 2002, at which time only 28 percent of the rural households reported contributing unpaid labor, and the mean unpaid labor contribution was less than two days.

Table 6.13 shows the level of taxes and fees reported by households in absolute terms and as a percentage of income. Rural taxes and fees declined markedly in both absolute terms and relative to income. Indeed, as of 2007 taxes and fees took a trivial fraction of rural household incomes. These data indicate that the government's goal of abolishing taxes and fees was effectively accomplished.

In 2002 taxes and fees were distributed regressively, as revealed by the higher tax rates for households in the lower deciles (Table 6.13). In 2007 the tax rate for the bottom two deciles was higher than that for higher deciles, but for all deciles the tax rates were well below 1 percent. This pattern suggests that the abolition of agricultural taxes and fees was equalizing, although given the relatively low level of taxes in 2002, the net impact on income inequality may not have been very large. Indeed, in 2002 inequality of after-tax income was higher than that of before-tax income (0.354 versus 0.348). In 2007 the Gini coefficients of before- and after-tax incomes were identical (0.358). (See Table 6.3.)

[insert Table 6.13 about here]

Table 6.14, which shows taxes and fees paid by the poor versus those paid by the non-poor, reveals the differential impact of taxes and fees for those in the lowest income groups. In 2002 taxes and fees accounted for 5 to 7 percent of the before-tax income of the poor, more than double the tax rate for the non-poor.

[insert Table 6.14 about here]

The average amount of taxes and fees paid by the poor in 2002 was large enough to account for a significant share of the poverty gap. As shown in Table 6.15, in 2002 the average poverty gap, measured using the PPP$1.25 per day poverty line, was 442 yuan; those who fell below this poverty line on average paid 63 yuan in taxes and fees, i.e., taxes and fees were equivalent to 14 percent of the poverty gap. Using the other poverty lines, we find that taxes and fees were equivalent to larger percentages of the poverty gap. For example, in 2002 taxes and fees paid by households below the official poverty line were, on average, equivalent to nearly one-quarter of the average poverty gap.

[insert Table 6.15 about here]

By 2007 the average amount of taxes and fees paid by the poor was much lower, both in absolute terms and relative to the poverty gap. These statistics suggest that the abolition of rural taxes and fees was beneficial to the poor. However, some observers have noted that the abolition of rural taxes and fees may have had negative indirect effects on the poor, as it resulted in a loss of revenue for local governments and thereby negatively affected their ability to fund social welfare programs, such as the *dibao* program (Zhang and Sun 2009).

VIII. The Minimum Living Standard Guarantee

A significant component of the government's new rural policy program was the minimum living standard guarantee, or *dibao* program. The government initiated the *dibao* program in urban areas in the early 1990s, and local experiments with rural *dibao* schemes began not much later, largely in the more developed areas (Xu and Zhang 2010). By 2001 rural *dibao* schemes were quite widespread, but at that time they were locally funded and varied considerably in levels of support and criteria for eligibility, and many difficulties arose after the reform of rural taxes and fees, which reduced local revenues (Xu and Zhang 2010).

After 2004, the rural *dibao* program was enlarged, especially during and after 2006. By the end of 2006 roughly 80 percent of the provinces and counties in China had adopted rural *dibao* programs (Xu and Zhang 2010). In early 2007 the central government announced that it would provide central subsidies for the program and that by the end of that year the program would be implemented nationwide in all counties (Xinhua 2007a, 2007b; Xu and Zhang 2010). According to official statistics, in 2007 35.7 million rural individuals (4.9 percent of the rural population) received relief under the *dibao* program, up from 4 million (0.5 percent) in 2002 (Department of Social, Science and Technology Statistics of the NBS 2008, p. 330; NBS 2009, pp. 89, 939).

The *dibao* absorbed or replaced several previous programs that had provided subsidies for poor households, including the five-guarantee (*wubao*) program and

subsidies for destitute households (*tekun jiuzhu*). By 2007 the *dibao* program was by far China's broadest nationwide rural social relief program, accounting for three-quarters of the rural recipients of social relief, followed in a far second place by the five-guarantee program which covered 5 million recipients (Department of Social, Science and Technology Statistics of the NBS 2008, p. 330).

In 2007 the average *dibao* threshold was 70 yuan per person per month (840 yuan per person per year), an amount slightly higher than the official poverty line that year (785 yuan). In that year, the average spending per recipient under the *dibao* program was 466 yuan (Ministry of Civil Affairs 2008; Poverty Reduction and Economic Management Division 2009; Xinhua 2007b; Zhang and Sun 2009), an amount close to the average poverty gap (Table 6.15). In principle, then, the *dibao* program had the potential to substantially alleviate poverty if it were well implemented and effectively targeted.

[insert Table 6.16 about here]

Table 6.16 presents statistics on *dibao* households in the CHIP rural survey. In 2007, the prevalence (weighted) of rural individuals in *dibao* households nationally was 2.5 percent.[4] This percentage is lower than the percentage of the rural population receiving *dibao* subsidies as reported by the NBS (4.9 percent).

The lower percentage of *dibao* households reported in the CHIP rural household survey may be due to an under-sampling of poor households, a known feature of the NBS household survey samples from which the CHIP survey is drawn. It could also reflect misreporting. Participating households may have been unaware that they

were receiving transfers under the *dibao* program, as opposed to some other programs such as the five-guarantee household program. It is also possible that the official statistics are misreported. Local-level governments in China have been known to overstate their implementation of central government policies.

Table 6.16 also shows the differences between *dibao* and non-*dibao* households. Income per capita is lower in *dibao* households than in non-*dibao* households, but at 3025 yuan per year it is still substantially higher than the national poverty line as well as the national average *dibao* threshold.

The CHIP questionnaire did not ask about the amount of *dibao* subsidies received by the households, but in principle *dibao* subsidies would be counted as transfer income. As shown in the table, net transfer income for *dibao* and non-*dibao* households in the CHIP survey is similar, although this may be due to the fact that non-*dibao* households received larger private transfers.

If we assume that the average *dibao* subsidies were equal to the average monthly expenditure per capita on the *dibao* program in 2007, then the annual *dibao* subsidies would be equivalent to 15 percent of the per capita income of *dibao* households. This amount is larger than their average reported net transfer income, which in 2007 was only 6.5 percent of per capita income. Such a discrepancy could arise if *dibao* expenditures reported by the Ministry of Civil Administration overstate the subsidy amounts actually received by households, or if transfer income in the CHIP survey does not fully reflect the *dibao* transfers. In many areas village leaders are responsible for implementation of the *dibao* program and slippage is possible at the

ground level.

Dibao participation rates vary substantially among provinces, as shown in Figure 6.5 for the provinces covered in the 2007 CHIP rural survey. The *dibao* participation rate is by far the highest in Yunnan, where almost one out of ten individuals resides in a *dibao* household. The lowest participation rate is Beijing. This regional variation is not surprising given the differing poverty rates and also variations in implementation of the *dibao* program, which is largely dependent on local fiscal resources plus some central supplements in regions that face fiscal difficulties. It has been reported that income thresholds and subsidies vary among regions and generally are lower in poor localities (Poverty Reduction and Economic Management Division 2009; Xinhua 2007a).

[insert Figure 6.5 around here]

Does the *dibao* program effectively target the poor? The CHIP data suggest that the *dibao* glass is half full: individuals in poor households benefited more than those in non-poor households, but there was leakage. As shown in Table 6.17, in 2007 between 15 and 45 percent of individuals in *dibao* households were poor, depending on the poverty line. The poverty rates for non-*dibao* households were substantially lower. Also, a much higher share of the poor than of the non-poor lived in *dibao* households.

[insert Table 6.17 about here]

The share of the poor receiving *dibao* benefits was well below 10 percent for all four poverty lines.[5] In other words, the overwhelming majority of the poor—more

than 90 percent—lived in households that did not receive *dibao* subsidies. Also, even for our highest poverty line, more than half of the *dibao* households were not poor. These statistics suggest that there is substantial room for improvement in implementation of the *dibao* program.

IX. Conclusions

In this chapter we use the CHIP rural survey data to examine changes in rural household incomes and inequality between 2002 and 2007, a period of renewed emphasis on rural policy. Overall, between 2002 and 2007 conditions improved for the majority of rural households, reversing trends in the late 1990s through the 2000s. We find that rural incomes grew substantially and more rapidly than during the preceding period. The fact that the urban-rural income gap continued to widen therefore was not due to stagnation in rural incomes, but rather to the more rapid growth in urban incomes.

Income growth was the result of increases in income from multiple sources, including agriculture as well as off-farm employment and other sources. Growth was most rapid in asset income, although this source of income remained relatively small in the rural areas. Imputed rental income from owner-occupied housing also increased rapidly. By 2007 these two sources of income together constituted more than 10 percent of rural household income, reflecting the rising importance of property income in rural China.

Income from migrant employment, narrowly defined as wages earned by rural household members from migrant jobs, also increased rapidly. Indeed, by 2007 such

income accounted for nearly one-fifth of per capita income in the rural areas, approaching the amount of income from local wage employment. These trends suggest that the easing of restrictions on labor movement was beneficial for rural households. The importance of migrant income would have been even larger if our calculations had included remittances from migrant family members, not to mention income of formerly rural households that had relocated.

Despite growth in nonagricultural forms of income, agriculture retained its place as the largest single source of income for rural households. Agricultural income grew at a fairly rapid pace, likely reflecting the recovery of farm prices as well as the new policies supporting agriculture.

Rural income growth was fairly widely shared, so that inequality increased only slightly between 2002 and 2007. Stable inequality was partly due to the growth in migrant wage earnings as well as growth in agricultural income, both of which were relatively equally distributed. As measured using the absolute poverty lines, the poverty headcount rate and the poverty gap declined substantially. Yet, although income growth among the poor was sufficient to raise roughly one-half of the poor out of absolute poverty, among those who remained poor the severity of their poverty increased. Also, relative poverty showed no improvement. Income growth in the low-income groups was thus insufficient to catch up with the median incomes.

Using the CHIP data we explored the impact of the elimination of rural taxes and fees. The data reveal the near-elimination of tax and fee payments by rural households. As taxes and fees were regressive in 2002, their elimination reduced the

inequality. But because the level of taxes and fees was already low in 2002, the size of this impact was small. We also note that rural taxes and fees had been a source of local public revenues; thus, their near abolition may have had negative consequences on local public spending that, in turn, affected rural households. These indirect effects are not captured by our calculations.

Our analysis of the *dibao* subsidies raises questions about the effectiveness of the minimum living guarantee program and its impact on poverty reduction, at least as of 2007. Although the program was more beneficial to the poor than to the non-poor, we find that the overwhelming majority of the poor lived in households that did not report receiving *dibao* subsidies. Furthermore, discrepancies between *dibao* numbers based on the CHIP rural survey data and those in official reports raise further questions and suggest the need for further research.

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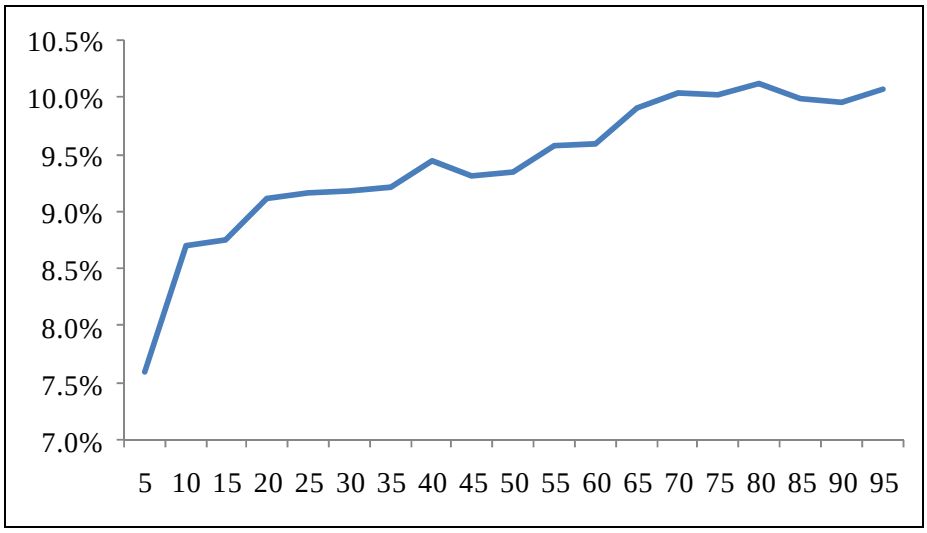
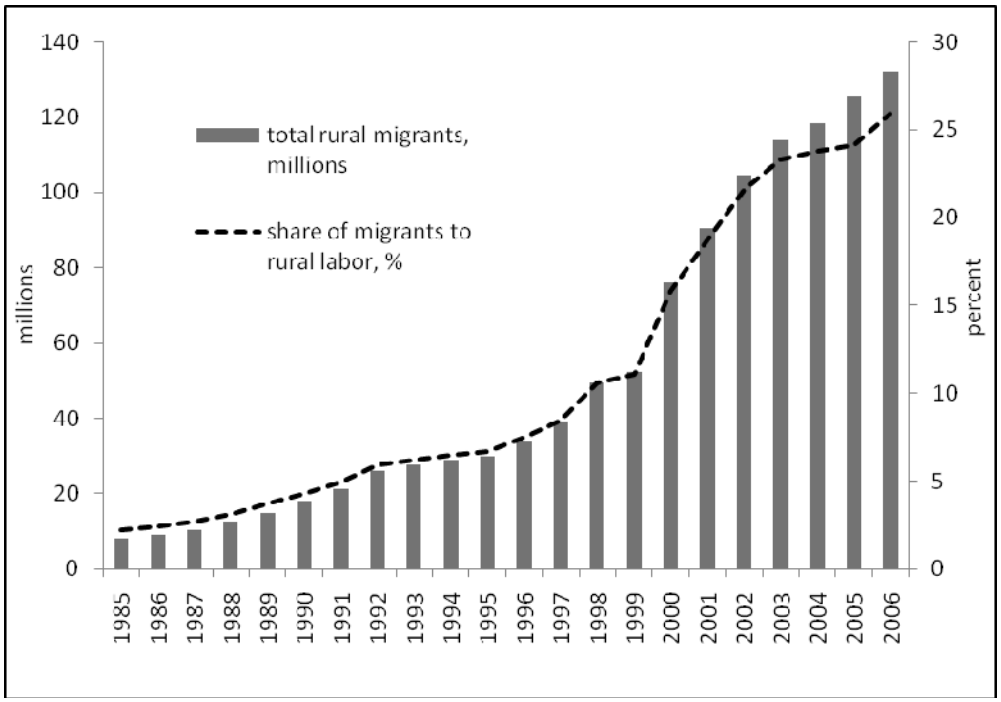
Figure 6.1 Average Annual Income Growth from 2002 to 2007 for Five Percentile Groups in the Distribution of Income



Note: Growth rates for each percentile are calculated as $\left(y_{2007,p}/y_{2002,p}\right)^{1/5} - 1$,

where 2002 and 2007 denote the two years, and p denotes the percentile group. Growth is calculated using constant 2002 prices, with weights, and using the CHIP income definition.

Figure 6.2 Growth in Migrant Employment of Rural Labor



Notes: Sheng (2008). This source estimates the level of migration using data from the NBS rural household survey. Migrants are defined as members of rural households who receive migrant wage employment. The labor force is defined as the number of members of rural households of working age.

Figure 6.3 Percentage of Households Reporting Wage Earnings from Migrant Employment, by Decile

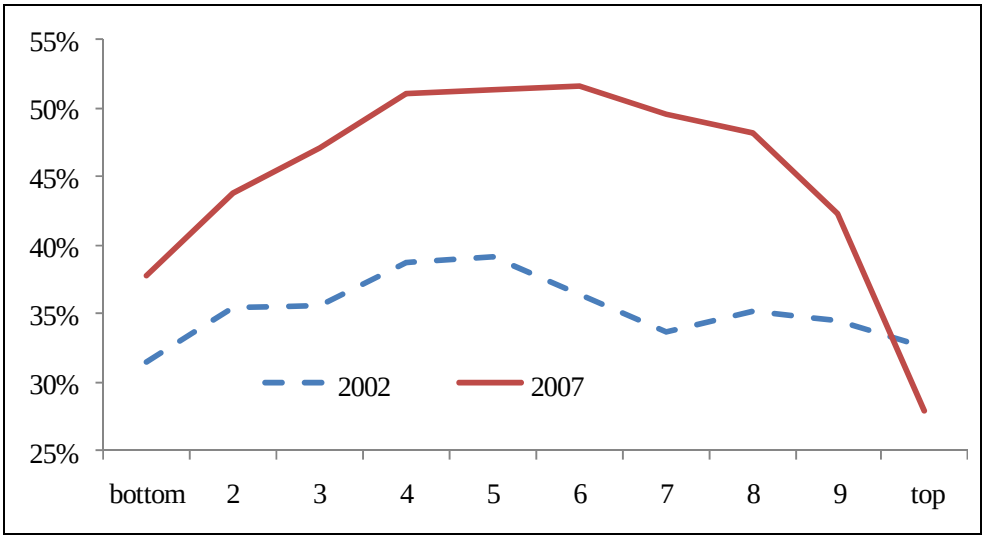


Figure 6.4 Wage Earnings from Migration as a Percentage of Household Per Capita Income, by Decile

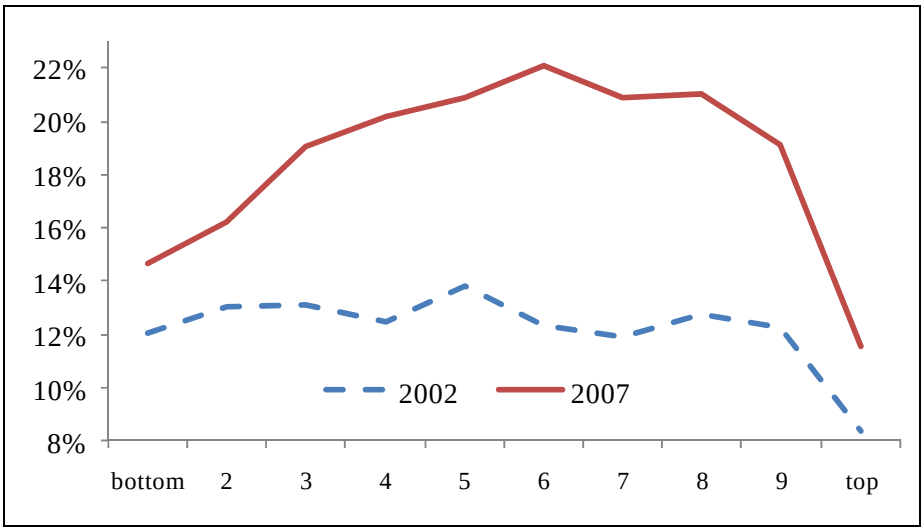
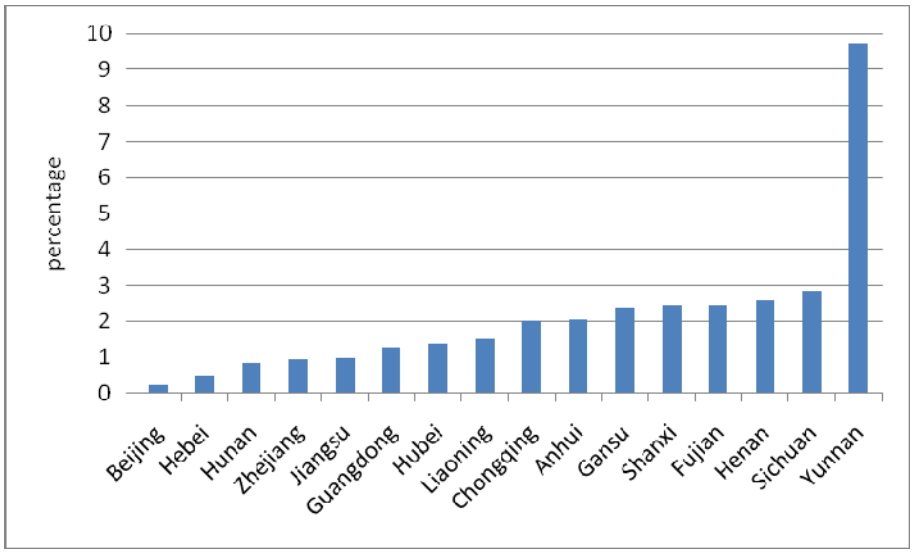


Figure 6.5 Percentage of Individuals in Rural *Dibao* Households, 2007, by Province



Note: Unweighted.

Table 6.1. *Rural per capita household incomes, 2002 and 2007*

	2002 (yuan)	2007 (yuan)	Average annual growth (%, constant prices)
CHIP Rural Survey Data			
NBS income definition	2590	4221	6.96
CHIP income definition	2754	4609	7.53
Published NBS Statistics	2476	4140	7.51

Notes: All mean incomes are in current prices. CHIP incomes are calculated with weights, and average annual growth is calculated using constant prices deflated using the NBS the rural consumer price index. The published NBS income statistics and the rural consumer price index are from NBS (2008).

Table 6.2. *Rural household per capita income, by source*

	2002		2007		Average annual growth rate (%)	Increment (constant 2002 yuan)	Share of increment (%)
	Yuan	Share of income (%)	Yuan	Share of income (%)			
Wage earnings from migrant employment	315	11.4	816	17.7	18.8	431	27.0
Wage earnings from local employment	678	24.6	929	20.2	5.7	216	13.6
Net income from agriculture	1099	39.9	1686	36.6	7.8	504	31.6
Net income from nonagricultural businesses	363	13.2	471	10.2	4.7	93	5.8
Net transfer income	117	4.2	197	4.3	9.7	69	4.3
Asset income	19	0.7	121	2.6	41.6	88	5.5
Imputed rent on owner-occupied housing	164	6.0	388	8.4	16.8	193	12.1
TOTAL	2754	100.0	4609	100.0	9.6	1594	100

Note: Weighted. Mean income levels for 2002 and 2007 are in current prices; income growth and income increments are in constant 2002 prices. Numbers may not match exactly due to rounding.

Table 6.3. *Estimates of the rural Gini coefficient, 2002 and 2007*

	Not PPP			PPP		
	2002	2007	% change	2002	2007	% change
CHIP Rural Survey Data						
NBS income definition	0.358	0.363	1.4	0.356	0.364	2.2
CHIP income definition	0.354	0.358	1.1	0.352	0.358	1.7
Published NBS Statistics	0.365	0.374	2.5			

Notes: The CHIP data are weighted. The PPP estimates correct for provincial differences in cost of living using the Brandt and Holz (2006) price indices updated to 2007 using the NBS provincial-level rural consumer price indices. The NBS published Gini coefficients are based on the NBS rural household surveys and can be found in Department of Rural Surveys (2010, p. 46, Table 2-26).

Table 6.4. *Alternate measures of inequality*

	2002	2007	% change
Coefficient of Variation	0.8045	0.8134	1.1
Theil index (GE(a), a = 1)	0.2261	0.2260	-0.0
Mean Log Deviation (GE(a), a = 0)	0.2133	0.2164	1.5
Income ratio of top 20% to bottom 20%	6.31	6.56	4.0
Income ratio of top 10% to bottom 10%	10.05	11.12	10.6
Income ratio of top 5% to bottom 5%	15.93	19.92	25.0

Note: Calculated with weights and using the CHIP income definition.

Table 6.5. *Gini coefficient decomposition, by income source*

Income source	Percentage of Income		Gini Relative Concentration Coefficient (c_k)		Percentage of Gini Contributed (s_k x 100)	
	2002	2007	2002	2007	2002	2007
Wage earnings from migrant employment	11.4	17.7	0.81	0.82	9.3	14.6
Wage earnings from local employment	24.6	20.2	1.42	1.28	35.1	25.9
Net income from agriculture	39.9	36.6	0.58	0.71	23.2	26.1
Net income from nonagricultural business	13.2	10.2	1.58	1.66	20.8	16.9
Net transfer income	4.3	4.3	1.16	1.00	4.9	4.3
Asset income	0.7	2.6	2.03	1.69	1.4	4.4
Imputed rent on owner-occupied housing	6.0	8.4	0.90	0.93	5.4	7.8
TOTAL	100.0	100.0	1.00	1.00	100.0	100.0

Note: Calculated with weights and using the CHIP income definition.

Table 6.6. *Poverty lines*

	2002		2007	
	Amount (yuan)	Share of mean income (%)	Amount (yuan)	Share of mean income (%)
PPP$1.25 per day per person	1451	56.0	1689	40.0
Official poverty line	964	37.2	1123	26.6
0.5*median income	1051	40.6	1714	40.6
0.6*median income	1261	48.7	2057	48.7

Note: All poverty lines are expressed in terms of income per capita. Median and mean incomes are calculated using the weighted CHIP rural sample incomes and the NBS income definition, which does not include imputed rent from owner-occupied housing.

Table 6.7. *Poverty estimates*

	2002			2007		
	Poverty headcount (%)	Poverty gap (%)	Squared poverty gap	Poverty headcount (%)	Poverty gap (%)	Squared poverty gap
PPP$1.25 per day	27.48	8.37	3.72	13.88	4.65	5.04
Official poverty line	11.22	2.97	1.27	5.59	2.25	7.09
0.5*median income	13.69	3.75	1.60	14.32	4.79	5.03
0.6*median income	20.75	5.99	2.59	21.07	6.93	5.28

Note: The poverty headcount FGT(0) measures the incidence of poverty; the poverty gap FGT(1) measures the depth of poverty; the squared poverty gap FGT(2) measures the severity of poverty (Ravallion 1994). Calculated using the poverty lines shown in Table 6.6, the weighted CHIP rural sample incomes, and the NBS income definition, which excludes imputed rent from owner-occupied housing.

Table 6.8. *Decomposition of changes in poverty, 2002-2007*

	PPP$1.25 per day			Official poverty line		
	Poverty headcount	Poverty gap	Squared poverty gap	Poverty headcount	Poverty gap	Squared poverty gap
Change in poverty (%)	-13.60	-3.72	1.32	-5.64	-0.72	5.82
Of which: (percentage points)						
Growth	-14.10	-4.66	-1.55	-6.61	-1.80	0.61
Redistribution	0.50	0.94	2.87	0.97	1.07	5.21

Note: Calculated using the Shorrocks (1999) method, with weights, and using the NBS income definition (excluding imputed rental income from owner-occupied housing). The calculation is done using constant prices.

Table 6.9. *Per capita income and its composition for non-poor and poor households*

	2002				2007			
	Non-poor		Poor		Non-poor		Poor	
	mean	%	mean	%	mean	%	mean	%
Wage earnings from migrant employment	382	12.0	138	13.6	918	19.4	186	16.6
Wage earnings from local employment	875	27.4	157	15.6	1048	22.2	191	17.0
Net income from agriculture	1281	40.2	620	61.4	1861	39.4	605	53.8
Net income from nonagricultural businesses	481	15.1	51	5.1	541	11.5	33	2.9
Net transfer income	146	4.6	42	4.1	216	4.6	79	7.0
Asset income	25	0.8	1	0.1	136	2.9	29	2.6
TOTAL	3189	100.0	1009	100.0	4720	100.0	1124	100.0

Note: Calculated using the PPP$1.25 per day poverty line, in current prices, weighted, and with the NBS income definition.

Table 6.10. *Composition of the income difference between non-poor and poor households*

	2002		2007	
	yuan	%	yuan	%
Wage earnings from migrant employment	244	11.2	731	20.3
Wage earnings from local employment	718	32.9	857	23.8
Net income from agriculture	661	30.3	1256	34.9
Net income from nonagricultural businesses	429	19.7	508	14.1
Net transfer income	104	4.8	137	3.8
Asset income	24	1.1	107	3.0
TOTAL	2180	100.0	3597	100.0

Note: Calculated as the absolute gap between the mean incomes of the non-poor and the poor, as shown in Table 6.9.

Table 6.11. *Percentage of households in each province of the CHIP rural survey reporting wage earnings from migrant employment*

Province	2002	2007
Beijing	24.38	24.00
Hebei	13.78	32.40
Shanxi	6.50	15.00
Liaoning	27.78	23.00
Jilin	11.46	-
Jiangsu	36.82	41.90
Zhejiang	29.04	12.60
Anhui	60.00	56.22
Fujian	-	29.00
Jiangxi	57.44	-
Shandong	18.57	-
Henan	34.34	48.20
Hubei	30.19	62.60
Hunan	43.11	56.13
Guangdong	45.66	50.50
Guangxi	49.25	-
Chongqing	38.50	63.20
Sichuan	44.60	63.09
Guizhou	44.75	-
Yunnan	21.54	16.14
Shaanxi	36.22	-
Gansu	31.56	48.86
Xinjiang	13.00	
Total	32.95	41.39

Note: The provincial percentages are not weighted; the totals are weighted using household-level weights.

Table 6.12. *The relationship between migration and poverty*

Type of household	Share of rural population (%)	Poverty headcount (%)	Share of poor rural population (%)
2002			
No migrant workers	63.7	28.3	65.6
With migrant workers	36.3	26.1	34.4
2007			
No migrant workers	51.6	16.6	61.6
With migrant workers	48.4	11.0	38.4

Note: Migration is identified by whether the household reports wage earnings from migrant employment. Poverty is calculated using the PPP$1.25 per day poverty line. Weighted; poverty calculations use the NBS income definition.

Table 6.13. *Taxes and fees paid by rural households (per capita), by deciles*

	Taxes and fees (yuan)		Before-tax income per capita (yuan)		Tax rate (%)	
	2002	2007	2002	2007	2002	2007
Bottom	54.2	3.4	724	1129	6.96	0.30
2nd	61.1	7.0	1145	2038	5.07	0.34
3rd	66.3	6.2	1443	2599	4.39	0.24
4th	78.5	8.9	1730	3139	4.34	0.28
5th	80.4	9.4	2040	3712	3.79	0.25
6th	85.0	10.0	2371	4351	3.46	0.23
7th	85.6	10.8	2769	5167	3.00	0.21
8th	88.7	11.6	3329	6254	2.60	0.19
9th	90.9	20.8	4259	8023	2.09	0.26
top	134.9	31.2	7753	14556	1.71	0.21
Average	83.4	11.6	2754	4609	2.94	0.25

Note: The tax rate is equal to per capita taxes and fees divided by household per capita net before-tax income. In current prices, calculated with weights and using the CHIP income definition plus taxes, so that the tax rates are percentages of the before-tax income.

Table 6.14. *Taxes and fees paid by poor and non-poor households (per capita)*

	2002				2007			
	Non-poor		Poor		Non-poor		Poor	
	Yuan	Tax rate (%)	Yuan	Tax rate (%)	Yuan	Tax rate (%)	Yuan	Tax rate (%)
PPP$1.25 per day	89	2.58	63	5.41	14	0.27	5	0.40
Official poverty line	85	2.75	60	7.07	13	0.27	6	0.64
0.5*median income	85	2.72	61	6.70	14	0.27	5	0.38
0.6*median income	87	2.64	62	5.93	15	0.27	5	0.32

Note: See the notes to Table 13. Households are grouped as poor or non-poor using the NBS income definition (excluding imputed rents on owner-occupied housing). The tax rate is calculated as a percentage of the before-tax income calculated as the CHIP income plus taxes. Note that the 2007 tax rates for the non-poor are in fact slightly different, but all round to the same value.

Table 6.15. *Taxes and fees paid by the poor relative to the poverty gap*

	Average Poverty Gap Per Capita (yuan)	Average Taxes and Fees Per Capita (yuan)	Taxes and Fees as a % of the Poverty Gap
2002			
PPP$1.25 per day	441.74	62.88	14.23
Official poverty line	255.64	60.29	23.58
0.5*median income	287.58	60.93	21.19
0.6*median income	363.79	62.09	17.07
2007			
PPP$1.25 per day	565.70	5.41	0.96
Official poverty line	452.55	5.77	1.27
0.5*median income	572.93	5.28	0.92
0.6*median income	676.69	5.20	0.77

Note: In current prices. Calculated with weights and using the NBS definition of income.

Table 6.16. *Basic statistics on individuals in* dibao *vs. non*-dibao *households, from the CHIP Rural Household Survey, 2007*

	Dibao	non-*Dibao*
Percentage of individuals (%)	2.46	97.54
Income per capita (yuan)	3025	4649
Net transfer income per capita (yuan)	197	217
Net transfer income per capita, as a share of the total income per capita (%)	6.5	4.7
Estimated *dibao* subsidy per capita as a share of the average household income per capita (%)	15.4	0

Note: Based on the reported national average expenditures of 38.8 yuan per person per month in 2007 the annual *dibao* subsidy per capita for *dibao* households is estimated to be 466 yuan (Ministry of Civil Affairs 2008). Non-*dibao* households are assumed to receive zero *dibao* subsidies. Weighted; CHIP income definition.

Table 6.17. *The relationship between* dibao p*articipation and poverty, 2007*

	Poverty rate of individuals in non-*dibao* versus *dibao* households (%)		% of non-poor and poor individuals living in *dibao* households	
	non *dibao*	*dibao*	non-poor	poor
PPP$1.25 per day per person	13.30	37.05	1.80	6.56
Official poverty line	5.34	15.31	2.21	6.74
0.5*median income	13.73	37.64	1.79	6.47
0.6*median income	20.46	45.63	1.69	5.33

Note: Weighted. Poverty is calculated using the NBS definition of income.