



***The World's Largest Open Access Agricultural & Applied Economics Digital Library***

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from AgEcon Search may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*



## RESEARCH ARTICLE

# Rural Economy Outcomes in China After Two Decades of Policy Reform

Paul Bowles,\* Hongqin Chang,† and Xiao-yuan Dong‡

**Abstract:** This article surveys the major rural policy changes that have occurred in China over the past two decades and analyses the results from national surveys to obtain a picture of the changes in rural labour allocation, income and poverty levels, and income inequality over the period 1991-2011. We find that there was a dramatic shift in labour allocation out of agriculture and into industrial wage employment. As a result, average real earnings grew significantly over the period. Summary measures of income inequality, such as the Gini coefficient, indicate that the distribution of rural earnings became more unequal in the 1990s but that this trend was reversed in the 2000s. More disaggregated data, including all income sources, show that, in the 1990s, the growth of income increased by income decile. This explains the increasing income inequality over the decade. In the 2000s, income growth by income decile was more equal, although the incomes of the top decile grew at twice the rate of those in the bottom decile. The policy changes that contributed to these different outcomes in the 1990s and 2000s are documented.

**Keywords:** Rural China, labour allocation, poverty, income inequality, rural policy.

### *INTRODUCTION*

The dismantling of the commune system and the introduction of the household responsibility system in 1978 put the rural economy at the forefront of China's initial reforms. Farmers' incomes increased, especially for those located close to major cities, and caught the world's attention. For the past two decades, however, the spectacular growth of China's manufacturing and export sectors, based in urban centres, has captured the headlines. But while China's climb to become the world's top exporter and holder of foreign exchange reserves is of considerable significance,

\* Professor of Economics and International Studies, University of Northern British Columbia, [Paul.Bowles@unbc.ca](mailto:Paul.Bowles@unbc.ca).

† Lecturer, Taiyuan University of Technology.

‡ Professor of Economics, University of Winnipeg.

it should be remembered that approximately half of China's population is still employed in the rural economy. What happens in the rural sector therefore still has major implications for the well-being of a substantial part of the Chinese population.

This article surveys the major policy changes that have occurred over the past two decades and analyses the results from national surveys to obtain a picture of the changes in rural labour allocation, income and poverty levels, and income inequality in rural China over the period 1991-2011. As will be shown in the next section, these two decades have witnessed major policy changes, with the privatisation of township and village enterprises, the facilitation and encouragement of mass rural-urban migration, and entry into the WTO being prominent examples. In the second decade of the period under review, the Communist Party of China (CPC) leadership under President Hu Jintao and Premier Wen Jiabao displayed a much greater commitment to addressing rural well-being in ways beyond simply increasing marketisation and migration. This fourth-generation leadership placed much greater emphasis on balanced regional economic development and social fairness than its predecessors did; its watchwords were a "New Deal" (*xinzheng*), the "harmonious society," and a "new socialist countryside" (see Li 2003; Fock and Wong 2008; Ahlers and Schubert 2009; and Fan, Kanbur, and Zhang 2011).<sup>1</sup> We document the increased priority given to the rural sector in China's development strategy in this decade and provide examples of the policy interventions designed to support this prioritisation.

In addition to this changing domestic policy landscape, the two-decade period also saw two large external shocks in the shape of the Asian financial crisis in 1997 and the global financial crisis of 2008. The outcomes we observed, reported in the third section of this paper, are therefore not only the results of domestic policy reform but also of external regional and global shocks. The outcomes will, however, help us assess the extent to which domestic policies were able to insulate the rural economy from these shocks. In focusing on patterns of labour usage, income, and inequality in the rural sector over the two decades, the outcomes will also allow us to provide an assessment of the impact of the Hu-Wen leadership's commitment to the rural sector as an integral part of the national development strategy.

#### *CHINA'S RURAL ECONOMY: TWO DECADES OF POLICY REFORM*

Over the past two decades, the recurrent themes for policy reform in the rural sector have been liberalisation and integration into the global economy. In the past decade, social protection has been added to this agenda.

By 1990, the rural sector had already undergone major changes as a result of the shift to the household responsibility system and the abolition of the commune system

<sup>1</sup> Hereafter, we use the shorthand "Hu-Wen leadership" to refer to this new policy emphasis adopted by the CPC.

in 1978. These changes introduced and then extended the use of markets, price incentives, and use rights in land throughout the 1980s. Off-farm work also emerged as a major source of income growth for many rural households (Lohmar 1999; Kung 2002). From 1985 to the early 1990s, township and village enterprises (TVEs) grew rapidly, providing jobs for nearly 120 million rural workers (Weitzman and Xu 1994; Bowles and Dong 1994). This marked the first large structural transformation of the rural economy as farmers were transferred from agricultural to industrial work within their home towns and average incomes rose as a result.

Since the early 1990s, rural-urban migration has become the most common way for rural labourers to get a job off the farm (De Brauw *et al.* 2002) and represents the second major structural transformation of the rural economy. It is estimated that in the mid-1990s, about 80 million migrant workers went to the cities, a number which roughly doubled over the following decade. Consistent with the experience of industrial countries, this large-scale migration fuelled sharp rises in labour productivity and income in China's rural sector. As a result, the proportion of the rural population living below the dollar-a-day poverty line fell sharply, from 65 per cent in 1981 to 12.5 per cent in 2001 (Ravallion 2006).

While the transformation of China's rural economy is indisputable, there remain many challenges, which government policy has sought to address. Farm size is small and agricultural productivity remains low. There have therefore been attempts, from the late 1990s onwards, at agricultural "modernisation", which have sought to increase production scale mainly through the government promotion of so-called "dragonhead" agribusinesses which supply urban markets through large-scale rurally-located agribusiness operations (in poultry, livestock and food processing). Government policy seeks not only to expand the market but also to shape the forms that it takes. Zhang and Donaldson (2008) document how, with the rise of waged labour, these enterprises have led to the development of agrarian capitalism; it is, however, conditioned by continuing strong norms of collective land rights that have led to a distinctive, and more egalitarian, form of agrarian capitalism than is found in other developing countries.

The development of rural industry, however, was unbalanced and concentrated in coastal regions, with the less-developed western regions experiencing great difficulty generating off-farm employment, resulting in the exacerbation of inter-regional inequalities (Cai, Wang, and Du 2002). Moreover, while restrictions on labour movement were relaxed, the *hukou* system still deprived rural migrant workers of equal access to employment, health care, and education. All of these problems were evident in the 1990s, and the economic slowdown following the Asian financial crisis in 1997 created additional hurdles for rural economic structural change. In the face of rising urban unemployment, rural migrants found it hard to find jobs in the cities and a large number of migrants returned to the countryside (Zhao 2002). In the countryside, many TVEs went bankrupt, forcing workers to return to agricultural

production. Thus, the growth of rural income decelerated, the gap between rural and urban incomes increased, and progress in poverty reduction came to a standstill after the mid-1990s (Sicular *et al.* 2007; Ravallion and Chen 2004).<sup>2</sup>

Against this backdrop, China's accession to the World Trade Organisation (WTO) in 2001 marked a further stage in the transformation of the rural economy. This time, the transformation was spurred not just by domestic market expansion, but also by greater exposure to international market forces. This intensification of market pressures might be expected to further enhance the role of the market in allocating labour and hastening the transfer of surplus labour into non-agricultural activities (Sicular and Zhao 2004).

WTO accession also committed China to opening up its domestic agricultural markets to foreign competition and reducing subsidies to agriculture, raising the fear that it might further hinder income growth for rural households and exacerbate inter-regional and rural-urban income disparity (Fewsmith 2001; Blum 2002). This outcome would be expected from analyses of globalisation that argue that the employment and income gains from trade liberalisation in developing countries are captured disproportionately by the already better-off groups, with negative implications for inequality and for the poor (Cornia 1999).<sup>3</sup> The exact impact, however, is difficult to predict, since, as Rodrik (2001) argues, the distributional outcome of globalisation depends upon country-specific conditions. Included here are the pre-existing distribution of assets and access to public goods. A more equal distribution of land, capital, human capital, and access to human and physical infrastructures allows broader participation in the opportunities created by greater openness to external trade. The distributional impacts of globalisation also depend on the flexibility of domestic markets, especially for labour. Market barriers hinder the household's ability to cope with negative shocks and may consequently translate trade shocks into actual poverty. Most importantly, the impact depends on how effective public policies are in response to the adjustment associated with trade liberalisation. Gains from trade liberalisation are more likely to be shared equally in countries that use trade reforms to advance the domestic development agenda.

These observations are relevant to the implications of China's accession to the WTO for the employment and income of rural households. The favourable initial conditions, in terms of a relatively equal asset distribution, potentially permit the gains from greater specialisation associated with WTO accession to be shared more broadly compared with the gains from similar liberalisation in other countries.

<sup>2</sup> World Bank data show that the poverty headcount ratio at the \$1.25 per day PPP threshold was around 55 per cent between 1987 and 1993 before falling to around 35 per cent in 1996. It remained at this level until the end of decade and fell to 28 per cent in 2002, but fell sharply thereafter to 16 per cent in 2005 and to 12 per cent in 2009. See PovcalNet, the online tool for poverty measurement developed by the Development Research Group of the World Bank.

<sup>3</sup> For a contrary view see, for example, Dollar and Kraay (2004).

However, China's labour markets have historically been inflexible and highly segmented. As noted above, the household registration system impeded the free circulation of labour and kept rural residents from migrating into cities for many decades; while these flows have now increased dramatically, they occur within the context of continued forms of exclusion for migrant workers. As a result, the share of farm employment and the share of the rural population in China are relatively high compared to other countries at a similar level of development. There are also large disparities in access to human and physical infrastructures between the coastal and the western regions (Wan and Zhou 2005).

It was predicted that China's WTO membership would reduce the prices of crops that use land intensively, such as wheat, corn and soybeans, but increase the prices of crops and manufactured goods that use labour intensively.<sup>4</sup> The changes in relative prices of crops and goods would lead to labour reallocation between sectors. However, with labour market barriers, poor infrastructure, and a shortage of human capital in China's less-developed interior regions, it would be difficult for farmers to switch from grain production to other high value-added crops or to non-farm activities. The difficulty in switching between activities would, *ceteris paribus*, contribute to rising income inequality among households and between regions and worsen rural poverty. Even commentators in favour of greater liberalisation through WTO accession accepted that accession would likely create problems for the agricultural sector (Lin 2000).

The inter-regional inequalities and rural-urban disparities that were a legacy of the liberalisation policies of the 1990s threatened to be further exacerbated by exposure to global market forces in the 2000s through WTO membership. The commitment to expanding market forces in the rural economy is common to both periods but, since the early 2000s, the further integration of the rural economy into the global market has brought forth responses from the central leadership attempting to manage this integration to counter the potential adverse effects on rural labour. That is, while the Hu-Wen leadership sanctioned and championed the extension of the market in the rural economy, it also sought to manage this by securing distributional outcomes that would extend more of the benefits of China's economic growth to the rural population, and thereby also meet the political objective of maintaining social stability. Examples of the policy shift under the Hu-Wen leadership are provided below. The outcomes associated with this shift are the subject of the next section.

The 16th National Congress of the CPC in 2002 announced that one of the main goals of the next decade was to increase the income of rural households, continue to shift massive amounts of labour out of farming as a way of doing this, and to ensure a more balanced growth between city and countryside and between the east and west regions. This formed part of the leadership's attempts to promote development

<sup>4</sup> See Dong, Song, and Zhang (2006) for the challenges facing China's rural sector under the WTO. See also Chen and Ravallion (2004) for discussion of price effects.

based on a “harmonious society.” Rhetoric aside, the aim was clearly to manage the distributional outcomes of further market liberalisation and globalisation to maintain social stability.

The increased importance accorded to addressing the rural economy and to managing the impact of further liberalisation and globalisation is reflected in “Number 1” policy documents (*yihaowenjian*). This document is the first policy document the Chinese government issues each year and indicates the policy priority for that year. Since 1982 the central government has issued fifteen “Number 1” policy documents concerning rural development, five of which were issued in the early reform period from 1982 to 1986. The remaining ten, however, were all issued after WTO entry, that is, from 2004 to 2014. For ten consecutive years, rural development was placed as the central government’s highest priority. All ten of the recent policy documents intended to address problems concerning agriculture, farmers, and rural areas.<sup>5</sup>

The ten Number 1 documents from the 2000s stipulate that governments at all levels adopt measures to raise rural income and reduce rural-urban income disparities. Included in the policy initiatives are: improving infrastructure of poor villages in less-developed central and western regions; providing subsidies for grain production; reducing (and eventually abolishing) agricultural taxes and rural levies; increasing off-farm employment; enforcing 9-year compulsory education; and developing rural social programs such as the rural health cooperative scheme, rural pension programme, and rural minimum income guarantee programme (*dibao*). This represents an extensive set of policy measures designed to both enable rural labourers to engage in the market economy on better terms and to increase levels of social protection when they are unable to do so.<sup>6</sup> We discuss some of these measures below:

1. Reforming the household registration system to increase rural-urban migration. One important change has been the reforms in the household registration system, which allows rural people to work and live permanently in cities. Many large cities began to provide migrants’ children equal access to education. The Act of Household Registration (2004) provided a legal basis for a nationwide household registration system that treated all citizens equally and guaranteed their ability to migrate.<sup>7</sup> This policy change is “market conforming” rather than “market constraining,” but is nevertheless important in terms of seeking to address the conditions under which rural migrants enter urban labour markets.<sup>8</sup>

<sup>5</sup> These problems are often expressed as “*sannong wenti* – *nongye*, *nong min*, and *nongchun*,” meaning “three rural problems – agriculture, farmers, and rural society.”

<sup>6</sup> See Wang (2008) for more extensive discussion of some of the rural social protections that are discussed only briefly here.

<sup>7</sup> “The Act of Household Registration to Break Up the Urban-Rural Divide,” *Shangwu Zhoukan* (Business Watch), April 2, 2004.

<sup>8</sup> The conditions of, and policies towards, rural migrant workers is a topic which has been covered extensively in the literature, and anything more than a cursory mention is beyond the scope of this paper. For more analysis see, for example, Cheng and Selden (1994), Chan and Buckingham (2008), and Bosker *et al.* (2012).

2. In order to encourage land improvement and output growth, land tenure policy quickly evolved to increase the security of use rights. By the mid-1980s, fifteen-year leases with frequent and minor redistributions had become the policy. In 1998, the contracts were extended to thirty years with infrequent redistributions; the 2003 policy prohibited reallocations altogether (Summerfield 2006). In 2008, China began to issue certificates (titling) for household land user rights in selected localities to facilitate land transfer and reduce land disputes between households and local governments. In industrialised countries, the process of creating an urban proletariat relied on “freeing” the peasants from the land by removing their entitlements to land use. In China, the process has been accompanied by a more complex process of systemic change which has removed the rural “iron rice bowl” provided by the commune system and replaced it with forms of private land control — through use rights — which have generally been strengthened, rather than diminished, over time.<sup>9</sup> Increasing farmers’ security of private use rights has therefore occurred at the same time as the massive reallocation of labour out of agriculture.

That said, it should be noted that disputes over land remain one of the most contentious issues in rural China, with frequent protests by farmers whose land has been transferred for industrial and/or infrastructure uses by local governments. Land seizures, as they are known, represent the Chinese version of land grabbing found elsewhere and have met with strong resistance (see O’Brien 2013 and Sargeson 2013 for discussion) and attracted the attention of top central leaders. For example, following mass protests in the Guangdong village of Wukan in 2011, Premier Wen announced new measures to strengthen land titles and stated that farmers’ land rights could not be sacrificed for urbanisation and industrialisation (Caixin staff 2012). With local governments reliant on land sales for revenue, it is no surprise to find, however, that illegal land seizures continue throughout the countryside and have led to further protests and, in some cases, deaths (Luo 2014). The brunt of the protests, however, is typically borne by the local rather than the central government (So 2007).

3. Investing in rural infrastructure with priority to low-income villages in the less-developed central and western regions. In the mid-1990s, 592 counties in central and western China were selected as officially designated poor counties and received funding from the central government to invest in roads, electricity, and irrigation and provide micro-credit and other support for rural households (Li *et al.* 2013). Between 2001 and 2009, another comprehensive development programme was introduced to 148,000 of the poorest villages. The programme, termed *zhengcun tujin*, aimed to lift all the households under the programme out of poverty by making electricity, irrigation, running water, and paved roads accessible, village by village.<sup>10</sup>

<sup>9</sup> See Dong (1996) for features of China’s land tenure system in the post-reform period.

<sup>10</sup> See also Fan, Kanbur, and Zhang (2011) on the positive effects of infrastructure spending on regional equality.

4. Fees, taxes, and subsidies. A widely reported drag on rural disposable income growth has been the burden of local fees and levies imposed on rural residents. Unlike in urban areas, where most of the public goods are funded by state or local government budgets, rural residents below the township level are charged to finance their basic medical care, public schools, township-village-level administrations, and other public facilities. To reduce rural residents' tax burdens and increase their incomes, the government eliminated grain procurement quotas, removed various levies by village and township governments, and abolished agricultural taxes in 2006. It is estimated that the rural tax and fees abolitions have increased household income by approximately 15 per cent per year. Because rural levies and agricultural taxes were regressive in nature, the tax reform disproportionately benefitted low-income households.<sup>11</sup> Notwithstanding WTO commitments, the Chinese government has continued to provide a variety of subsidies to farmers, including subsidies for grain production (*liangshi butie*), for agricultural inputs (*nongzi zonghe butie*), for adopting improved seeds (*liangzhong butie*), for the purchase of farm machinery (*gouzhi nongji butie*), and for various crop and region-specific subsidies (Li *et al.* 2013). Statistics from the OECD (2011) show that support for agricultural producers in China went up from about 3 per cent of gross receipts from farm production in the late 1990s to 11 per cent in 2008-11. Overall, between 2001 and 2011, China's public expenditures for rural infrastructure and agricultural support grew at an annual rate of 23 per cent, and from 0.7 per cent to 2.1 per cent of GDP (*China Statistical Yearbook*, 2002, 2012).
5. Promoting rural education. In 1986, China launched the 9-year compulsory education programme. By 2000, almost all urban school-age children were enrolled in primary and junior-high schools. Since 2001, the focus of the compulsory education programme has been shifted to rural areas. In 2003, the State Council announced the abolition of school charges and book fees in rural schools, making rural compulsory education free (see Knight 2008). Subsidies were made available for boarding students from low-income households. Between 2001 and 2011, China's public expenditures on education grew at an annual rate of 19 per cent per year, from 1.9 per cent of GDP to 3.5 per cent, with a growing proportion for rural education. By 2010, China achieved 100 per cent enrolment rates for primary and junior-high school education.
6. Providing social security for rural populations. In early 2003, the New Rural Cooperative Medical Service System was introduced; the programme covered more than 85 per cent of the rural population in 2008. In 2004, the Minimum Income Guarantee Programme (*dibao*) was extended from the urban sector to the rural sector. In 2008, 43.1 million rural residents received the *dibao*.

<sup>11</sup> We view the tax reductions as part of the overall policy designed to increase rural incomes. However, see Li (2007) for a contrary view, namely, that the tax reductions that raised rural incomes were, in fact, the outcome of complex central-local government dynamics and not a coherent and intentional policy to increase rural incomes.

allowance. Lastly, the New Rural Pension Scheme (NRPS) was implemented in 2009, and more than 326 million rural adults participated in this programme by the end of 2011 (*China Statistical Yearbook*, 2012).

To sum up, the security of the previously collectivised sector is now but a distant memory for residents in rural China. In its place has come a relentless wave of liberalisation and now globalisation, in the form of WTO accession; the market has consequently expanded its role in allocating labour and facilitating the (Lewisian) transfer of labour from agricultural to non-agricultural activities, a process which has been the central leadership's main policy for raising rural incomes. However, as the inequalities arising from this process, combined with rising levels of economic insecurity, intensified, the central leadership sought to manage the distributional consequences of the market-led reallocation of labour within the rural economy. These policies have been prominent since the 2001 WTO accession, as indicated by the designation of rural development as a Number 1 policy, and have included policies on rural infrastructure spending, tax abolition, grain subsidies, tenure security, education, health, pensions, and minimum income allowance. All of these policies were intended to mitigate the effects of market liberalisation on the poorest and to equip them with the tools to participate in the new market-driven economy, rather than be submerged beneath it. In the next section, we discuss the extent to which this objective has been realised.

#### *TRENDS IN LABOUR ALLOCATION, INCOME AND POVERTY, AND INCOME INEQUALITY*

The preceding discussion has provided an analysis of the rural economy, which, in broad-brush strokes, can be summarised as the consistent expansion of the market through liberalisation, first domestically and then internationally through WTO accession, aimed at reallocating rural labour. In the last decade, government policy also paid greater attention to the distributional consequences of market expansion. In this section, we examine the evidence and analyse the extent of labour reallocation and the trends in intra-rural income inequality.

We use data from the China Health and Nutrition Survey (CHNS).<sup>12</sup> The advantage of this survey data is that it has been collected for the years 1989, 1991, 1993, 1997, 2000, 2004, 2006, 2009, and 2011. Each survey is carried out over a three-day period, and covers about 3800 households and 14,000 individuals in both urban and rural areas from nine of China's 30 provinces, namely, Heilongjiang, Liaoning, Shandong, Henan, Jiangsu, Hubei, Hunan, Guizhou, and Guangxi. These provinces are geographically dispersed and contain both coastal and inland areas and areas from the north and

<sup>12</sup> The CHNS is jointly sponsored by the Carolina Population Center at the University of North Carolina at Chapel Hill, the Institute of Nutrition and Food Hygiene of China, and the Chinese Academy of Preventive Medicine. Detailed information about the CHNS is available at the website [www.cpc.unc.edu/projects/china](http://www.cpc.unc.edu/projects/china)

the south. The average GDP per capita of the nine provinces was 37,024 *yuan* in 2011, slightly lower than the average of 39,441 *yuan* for all provinces in China. A multistage, random cluster process was used to draw the sample surveyed in each province; the sample is therefore representative of households in their respective provincial populations. In terms of the sample make-up, two cities and four counties were selected from each province; two communities in urban neighbourhoods and two communities in suburban areas were selected from each city; one community in the county centre and three village communities were selected from each county; and around 20 households were drawn from each community. In the latest wave, the survey covers about 4,400 households and 16,000 individuals from more than 210 communities. The survey provides rich socioeconomic information on individuals, households, and communities in the sample. In order to focus sharply on rural conditions and rural dynamics, we exclude villages in suburban areas and communities around the county centres. Our sample is strictly a *rural* sample and its coverage is therefore reduced to about 2,000 households in the villages from the nine provinces for the period from 1991 to 2011.<sup>13</sup> A typical household in our sample is poorer than its counterpart in the full survey.

#### *LABOUR ALLOCATION*

The data from the survey demonstrate the extent to which the structural transformation of the rural economy has taken place over the past two decades, and the acceleration of this process in the 2000s. Column 1 of Table 1 shows that, in the early 1990s, 87 per cent of rural households had members engaged in agricultural activities; by 2011, this had fallen to 69 per cent.<sup>14</sup> Column 2 shows even more dramatically the extent to which agriculture has ceased to be the exclusive mode of employment for rural households. In 1991, 71 per cent of rural households had members who worked only on-farm. By 2011 this was the case for only 40 per cent of households. The rural economy was transformed by exposure to the logic of global market forces in the form of WTO accession — a change which made land-intensive farming less attractive and which led to a rapid rise in China's labour-intensive manufacturing exports. As farm employment decreased, wage employment rose dramatically, fuelled by rising levels of migration. By 2011, 46 per cent of rural households had at least one member working as a waged worker (whether in rural agribusiness, rural industry or urban industry).

<sup>13</sup> Urban-rural inequalities are therefore beyond the scope of this paper.

<sup>14</sup> The 31 per cent of households who report no income from farming consist of those who do not have use-rights to land, those who lease land to others and those who use land for non-agricultural purposes. We are unable to ascertain the proportions in each category from the data set.

**Table 1** *Members of the rural population aged between 16 and 64 in specific categories of activity as a proportion of all persons in the age group, rural China, 1991-2011 in per cent*

	Household farm (1)	Farm only (2)	Non-farm self-employment (3)	Wage labour (4)
1991	87.0	71.2	10.1	19.5
1997	78.4	64.5	11.9	19.6
2000	72.8	56.8	13.5	24.4
2006	73.9	42.4	17.6	39.4
2009	73.1	42.8	18.2	40.8
2011	68.6	40.4	14.0	45.9

Source: CHNS.

**Table 2** *Allocation of work between different types of work by rural households in hours per year per household*

Year	Household farm		Non-farm self-employment		Wage labour		Total hours	No. of households
	hours	%	hours	%	hours	%		
1991	3,870	71.5	406	7.5	1,137	21.0	5,413	1,792
1993	2,766	62.9	446	10.1	1,188	27.0	4,400	1,723
1997	2,460	59.5	529	12.8	1,143	27.7	4,133	1,774
2000	1,856	49.0	574	15.2	1,356	35.8	3,787	1,962
2004	2,007	48.2	957	23.0	1,202	28.9	4,166	1,768
2006	1,606	34.3	875	18.7	2,207	47.1	4,688	1,729
2009	1,380	31.6	915	21.0	2,066	47.4	4,361	1,793
2011	1,279	29.5	710	16.4	2,341	54.1	4,330	2,112

Source: CHNS.

These patterns are also evident if we look, in Table 2, at the allocation of work hours by rural households.<sup>15</sup> We see that the percentage of time spent in agricultural work decreased dramatically between 1991 and 2011, from 72 per cent to 30 per cent of household hours, while wage employment expanded from 21 per cent of household labour hours to 54 per cent.

These labour reallocations have been a rational response by households to differential returns calculated for the various forms of labour shown in Table 3. The dramatic shift of labour out of agriculture and into waged labour and, to a lesser extent, into self-employment is rational given the much lower returns to farm labour than to employment in the other two activities. Even so, the return to agricultural labour

<sup>15</sup> The data reported in Table 2 and subsequent earnings Tables exclude household members who were long-term migrants and hence not reporting their activities and earnings in the survey. The activities and earnings of short-term migrants who were still considered by respondents to be part of the household are included.

**Table 3** *Estimated rates of returns to farm labour, non-farm self employment, and wage labour in yuan per hour*

	Farm labour	Non-farm self-employment	Wage labour	No. of observations
1991-1993	0.575(0.195)***	2.338(0.209)***	2.044(0.106)***	3482
1997-2000	0.815(0.219)***	2.397(0.237)***	3.621(0.243)***	3559
2004-2006	1.099(0.358)***	2.290(0.310)***	4.287(0.247)***	3201
2009-2011	2.692(0.991)***	5.437(0.825)***	7.257(0.519)***	3857

*Notes:* Rates of returns are the OLS estimates of the respective labour hours of the household earnings function. Earnings are measured in 2011 constant price. In the earnings function we control for average years of schooling and age of the labor force, land, assets, region and time. Heteroscedasticity-robust standard errors are reported in parentheses.

\*\*\* denotes significance at the 1 per cent level.

Source: CHNS.

has increased over time, especially after 2000, although the extent to which this is due to rising labour productivity as a result of increased physical investments in infrastructure in the sector or price effects associated with increased farm subsidies cannot be determined from this data. Strikingly, the returns to all three types of activity went up sharply between 2009 and 2011 — the period after the 2008 global financial crisis. This suggests that the massive infrastructure spending programme introduced by the central government in the wake of the crisis had an immediate and significant effect on rural incomes, despite the expansion of the rural labour force caused by returning migrant workers who had lost their urban export sector manufacturing jobs during the crisis.<sup>16</sup>

#### *INCOME LEVELS AND POVERTY RATES*

A rise in the returns to labour activities and a reallocation of labour to activities that yield higher returns have been behind the growth of rural incomes shown in Table 4. In real terms, average household total earnings in the survey have increased five-fold over the period 1991-2011, with the annual rate of growth for the 2000-11 period exceeding that for the 1991-2000 period by 4.6 percentage points. Interestingly, in contrast to its near-stagnation between 1991 and 2000, farm income grew at 9.4 per cent per year between 2000 and 2011. This increase in farm income undoubtedly reflects, in part, the increased rural infrastructure spending designed to increase rural productivity. The higher rates of return offered in waged work in conjunction with the reallocation of labour into that sector has meant that wage income has gone

<sup>16</sup> China's response to the global financial crisis included a two-year 4 trillion yuan (\$580 billion) stimulus package, a sum equivalent to 14 per cent of GDP. A significant part of this went on rural infrastructure spending (such as irrigation facilities, power grids, and paved roads) as well as subsidies for rural residents' purchases of domestic appliances. See Yu (2010) for details.

Table 4 Household annual earnings in rural China

	Total earnings		Farm income		Non-farm self-employment		Wage income		Earnings per worker	
	yuan	%	yuan	%	yuan	%	yuan	%	yuan	%
1991	8,889		5,552	62.0	1,295	15.0	2,041	23.0	3,624	
1993	9,887		5,183	52.0	1,858	19.0	2,846	29.0	4,293	
1997	12,114		6,078	50.0	2,172	18.0	3,864	32.0	5,269	
2000	14,847		5,790	39.0	3,060	21.0	5,997	40.0	6,585	
2004	17,530		7,762	44.0	2,946	17.0	7,207	41.0	7,826	
2006	19,862		7,140	36.0	3,141	16.0	10,109	51.0	8,808	
2009	37,222		13,654	37.0	6,930	19.0	17,664	47.0	17,082	
2011	44,478		15,630	35.0	5,932	13.0	22,916	52.0	21,293	
Average annual rate of growth (%)										
1991-2000	5.9	0.5			10.0		12.7		6.9	
2000-2011	10.5	9.4			6.2		13.0		11.3	
1991-2011	8.4	5.3			7.9		12.9		9.3	

Note: All earnings are measured in 2011 constant price with CPI as the deflator.  
Source: CHNS.

**Table 5** *Per capita income and poverty rate in rural China*

	Income per capita (in yuan/year)	Poverty rate (%)	No. of households
1991	2,473	26.8	1,792
1993	2,769	28.4	1,723
1997	3,666	30.2	1,774
2000	4,626	27.0	1,962
2004	5,787	22.1	1,768
2006	7,115	20.8	1,729
2009	10,949	10.9	1,793
2011	12,898	9.9	2,112
Annual rate of growth (%)			
1991-2011	8.3	–	–
1991-2000	7.0	–	–
2000-2011	9.3	–	–

*Notes:* Per capita income is the sum of labour earnings plus assets income, various subsidies, and gifts and remittances of relatives and friends divided by the number of people in the household. It is deflated by CPI with 2011 as base year. Poverty rates are calculated based on the US \$1.25 a day poverty line. Adjusting for purchasing power parity, the poverty line was about 1,817 yuan per year per person in 2011 prices.

*Source:* CHNS.

from contributing 23 per cent of total household earnings in 1991 to contributing 52 per cent in 2011.

This dramatic structural transformation of the rural economy has raised average real earnings, as Table 4 showed. With massive rural-urban migration and the resultant decline of the labour force in the rural sector, combined with infrastructure investment, the annual average growth rate in earnings per worker nearly doubled from 6.9 per cent per year in the period 1991-2000 to 11.3 per cent per year in the period 2000-11.

We can also construct per capita income measures from data provided in the survey to analyse poverty rates. As might be expected both from national trends and from the data on earnings provided above, poverty rates in the sample show a substantial decline. Table 5 indicates that the poverty rate, defined as US \$1.25 a day after adjusting for purchasing power, fell by about two-thirds during the 1991-2011 period. During the 1991-2000 period, however, the poverty rate was relatively stable and a large reduction came after 2000.

#### *INCOME INEQUALITY*

The picture so far is one of a large change in labour allocation, increasing average real incomes, and declining poverty. We now turn our attention to various dimensions of income inequality. Measuring income inequality in China is fraught with

**Table 6** *Earnings inequality in rural China*

Year	1991	1993	1997	2000	2004	2006	2009	2011
Gini coefficient	0.403	0.443	0.423	0.443	0.447	0.513	0.466	0.427
95% C.I.	0.389	0.428	0.409	0.421	0.429	0.494	0.442	0.405
	0.418	0.458	0.437	0.465	0.466	0.533	0.490	0.449
Theil index	0.274	0.337	0.303	0.360	0.359	0.483	0.450	0.358
95% C.I.	0.252	0.311	0.278	0.302	0.311	0.426	0.378	0.297
	0.295	0.363	0.327	0.419	0.406	0.540	0.521	0.419

*Note:* Inequality indices are calculated based on earnings per worker in 2011 constant price.

*Source:* CHNS.

methodological issues (see Knight 2013 for an overview). In reporting our results, we therefore note where they are consistent with, or differ from, results reported in selected other studies. To start with, consider the inequality of earnings. The Gini coefficients reported in Table 6 suggest that earnings inequality increased from 0.403 in 1991 to 0.443 in 2000 and continued to increase during the 2000s before declining to 0.427 in 2011, a conclusion also supported by the Theil index.<sup>17</sup>

To examine this point further, we decompose the Gini coefficient by earnings source. This indicates, as shown in Table 7, that inequality was positively correlated with incomes from non-farm self-employment and wage employment over the period and negatively with farm incomes. Non-farm household income, typically derived from self-employment in the retail and service sectors, remained very unequal and an income source available mainly to those rural households with considerable assets that they could invest in these activities. In contrast, the de-equalising effects declined over time as wage employment became more accessible.

The Gini coefficient and its decomposition reported in Tables 6 and 7 provide insights into the changing dynamics of rural income inequality and its sources. However, as a summary measure, it does not provide evidence of what is happening in the tails of the income distribution, which is a matter of policy significance and important for any assessment of inequality trends. For this investigation, we use the per capita income data which adds to households' earnings profiles, including remittances from long-term migrants, gifts, subsidies, and asset income. These results for per capita income deciles for 1991, 2000 and 2011 are presented in Table 8 and provide some startling evidence on the different fortunes of the richest and poorest households in rural China over the period.

<sup>17</sup> The data here therefore contrast with the results presented by Khan and Riskin (1998, 2005), based on the China Household Income Project, which found that after sharp increases in income inequality between 1988 and 1995 income inequality declined significantly between 1995 and 2002. In contrast, Ravallion and Chen (2007), using the Rural Household Surveys of China's National Bureau of Statistics, found increasing rural income inequality between 1990 and 2001.

Table 7 Decomposition of Gini coefficient by source of earnings in rural China

Year	1991	1993	1997	2000	2004	2006	2009	2011
Share of each earning component								
Total earnings	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Farm income	62.1	52.8	51.6	40.3	47.6	38.9	38.2	37.8
Non-farm HH income	14.6	17.9	18.0	21.9	15.2	15.3	18.8	12.7
Wage incomes	23.3	29.3	30.5	37.9	38.5	47.5	44.6	49.5
Gini coefficient and concentration ratios								
Total earnings	0.403	0.443	0.423	0.443	0.447	0.513	0.466	0.427
Farm income	0.447	0.487	0.484	0.484	0.579	0.601	0.544	0.574
Non-farm HH income	0.886	0.886	0.876	0.883	0.892	0.914	0.936	0.925
Wage incomes	0.800	0.802	0.813	0.760	0.660	0.766	0.597	0.604
Contribution of each component to overall inequality								
Farm income	46.7	36.3	31.2	18.4	37.9	23.4	23.3	25.3
Non-farm HH income	22.6	25.3	25.5	31.7	22.2	19.1	32.4	20.4
Wage incomes	30.8	38.4	43.3	49.9	38.9	56.1	43.3	54.3
The effect of 1% increase in each component on inequality								
Farm income	-0.154	-0.165	-0.204	-0.218	-0.097	-0.155	-0.149	-0.125
Non-farm HH income	0.080	0.074	0.076	0.098	0.070	0.038	0.136	0.077
Wage incomes	0.074	0.091	0.128	0.120	0.005	0.087	-0.013	0.048

Note: Inequality indices are calculated based on earnings per worker in 2011 constant price. The share of each type of earnings in this Table is different from that in Table 4, where the earnings composition is based on total household earnings.  
Source: CHNS.

**Table 8** *Per capita income by decile in 1991, 2000, and 2011 in rural China in constant (2011) prices*

Decile	Income per capita (yuan per year)		Annual rate of growth (%) 1991-2000	Change as percentage of the 10 <sup>th</sup> decile income increase (%)	Annual rate of growth (%) 2000-11	Change as percentage of the 10 <sup>th</sup> decile income increase
	1991	2000				
1	686	908	1,860	3.6	2.7	9.5
2	1,027	1,465	3,452	4.7	5.3	12.3
3	1,334	2,022	5,226	5.7	8.3	14.4
4	1,629	2,699	6,840	7.3	12.8	13.9
5	1,993	3,378	8,602	7.7	16.6	14.1
6	2,335	4,199	10,736	8.9	22.4	14.2
7	2,861	5,192	13,619	9.1	28.0	14.8
8	3,557	6,544	17,021	9.3	35.8	14.6
9	4,617	8,875	24,034	10.2	51.1	15.5
10	10,736	19,069	58,593	8.6	100.0	18.8
No. of households	1,851	2,186	2,669	—	—	—

*Note:* Income is the sum of labour earnings plus assets income, various subsidies, and gifts and remittances of relatives and friends. Income per capita is measured in 2011 constant price.

Source: CHNS.

Table 9 *Regional earnings disparity in rural China* in yuan per worker per year

	Coast	North East	(2)/(1)	Central	(3)/(1)	West	(4)/(1)
	(1)	(2)		(3)		(4)	
1991	3,773	2,646	0.701	2,099	0.556	1,545	0.409
1997	6,647	5,318	0.800	5,266	0.792	4,016	0.604
2000	8,400	7,051	0.839	5,014	0.597	5,411	0.644
2006	12,189	10,962	0.900	9,969	0.818	9,444	0.774
2009	18,203	16,457	0.904	17,490	0.961	15,060	0.827
2011	24,673	20,252	0.821	18,947	0.768	17,493	0.709

Note: Earnings per worker are measured in 2011 constant price.

Source: CHNS.

The results show that between 1991 and 2000, the real income of all deciles increased, with the rate of increase uniformly rising as income level increases except for the top decile. This suggests a clearly rising trend in intra-rural income inequality. In the post-2000 period, income growth accelerated for all income deciles and the rates of growth became more even across deciles. The post-2000 period corresponds to the large shift in labour allocation from farm to wage labour, itself a result of the structural transformations induced by globalisation. More households were able to benefit from the higher incomes provided by the expansion of wage labour; this was the case for all deciles. In addition, this period is also the one in which government policy was particularly active in pursuing redistributive policies, such as the abolition of the regressive agricultural taxes and investing in education and infrastructure in less-developed western regions. This combination of globalisation and redistributive policies seems to have led to an increase in the average real incomes of each income decile, although the poorest decile still saw the lowest income growth rate, indicating that, on this measure, income inequality worsened, with the incomes of the top decile increasing twice as fast as the bottom decile. In absolute terms, the incomes of the top decile increased by more than forty times the increase in the incomes of the bottom decile during the 2000s.

The government policies discussed above, such as the central government infrastructure spending projects, were designed not only to increase rural productivity but also to reduce inter-regional inequalities by being disproportionately targeted to the poorer provinces (see Fan, Kanbur, and Zhang 2009). As an indicator to gauge the success of this strategy, we report average earnings per worker by region in Table 9.

The results show that real earnings per worker were higher in rural areas in coastal provinces than in the rural areas in provinces in the other three regions. However, earnings per worker in the latter three regions all moved to convergence with the

coastal provinces up to 2009, while the regional disparities increased in 2011.<sup>18</sup> This may be because the stimulus package following the global financial crisis was aimed at all rural areas, and therefore countered the effects of the pro-poor regional policies followed in the pre-crisis period. Nevertheless, overall, rural inter-regional inequality declined significantly over the period, and much of the decrease between the coastal region and the central and western regions occurred after 2000.

### *CONCLUDING REFLECTIONS*

China's rural economy has undergone radical changes since the dismantling of the commune system and the shift to household farming in 1978. Since then, liberalisation and an increasing role for the market have, as in the urban sector, been the consistent reform programme. Accession to the WTO in 2001 pushed this liberalisation further and had a direct impact on the rural economy by depressing the relative price of land-intensive crops, such as grain, and encouraging the shift into other crops and earnings activities; at the same time, the rise in manufactured exports following WTO succession increased the demand for migrant labour, which the rural areas provided.

And yet, at the same time as this unleashing of the market has been facilitated and encouraged, the central leadership has also sought to constrain its most deleterious social effects. This has been most evident since the early 2000s, when the rural economy again ranked highly in policy priorities, and the Hu-Wen leadership sought to ensure that the rural population enjoyed the benefits of economic growth. Thus, policies to invest heavily in the poorer regions, to abolish agricultural taxes and fees, to increase tenure security, and to continue with grain subsidies, all point to ways in which the central government sought to address distributional issues.

To assess the changes over the past two decades of policy reform we have used data from the rural areas of nine provinces from the period 1991 to 2011. This data set has the advantage of enabling us to focus on rural trends over a twenty-year time period. The transformation of the rural economy is strikingly clear from the data. There has been a dramatic shift in labour allocation out of agriculture and into industrial wage employment. This trend accelerated in the post-2000 period, and by 2011, 84 per cent of rural households had at least one member engaged in wage labour.

This structural transformation shifted labour out of relatively low-productivity agriculture and into higher productivity industrial wage employment. As a result, average real earnings grew significantly over the period. Summary measures of income inequality, such as the Gini coefficient, indicate that the distribution of rural

<sup>18</sup> Kanbur and Zhang (2005) report rapidly increasing income inequality between inland and coastal provinces between 1990 and 2000. Their data includes urban and rural households in the two types of provinces; our data, which includes only rural households, shows generally falling inequality between inland and coastal rural households over the decade of the 1990s as well as the next decade up to 2009.

earnings became more unequal in the 1990s but that this trend was reversed in the 2000s. More disaggregated data, including all income sources, enabled us to see what is happening at the tails of the distribution. In the 1990s, the growth of income increased by income decile and explains the increasing income inequality over the decade. In the 2000s, income growth by income decile was more equal, although the incomes of the top decile grew at twice the rate of those in the bottom decile.

Given the complexity of the processes at work, it is not possible to separate out the effects on rural income distribution of global market integration and more aggressive government intervention. We can, however, say that the net effect has been positive in terms of real earnings growth and poverty reduction, but negative in terms of increasing income inequality — although this was noticeably more pronounced in the 1991-2000 period than in the 2000-11 period. The impact of the global financial crisis on rural areas was minimal in terms of income levels although the policy response to it may have contributed to the reversal of the trend of narrowing inter-regional rural income inequality.

As a final word, it should be noted that the inequality indicators that we have reported in this paper are by no means exhaustive and that any overall assessment of the changing rural economy in China would need to take account of other measures. For example, we have documented the changing allocation of labour in the rural sector but have not analysed the implications of this for changing patterns of work by gender. In this respect, it is important to note that the large rural-urban migration flows are gendered and this has implications for the rural economy. In particular, other research has shown that “left behind” elderly women and girls have disproportionately increased their farm work in response to the out-migration of adults from rural areas (Chang, Dong, and MacPhail 2011). We have also not analysed urban-rural inequality. One measure of this, the urban to rural per capita consumption ratio, can be calculated from the data set used here and shows that it declined slightly over the 2000s from 3.5:1 in 2001 and to 3.4:1 in 2011. The relative income of rural households is important and informed the revived policy emphasis on rural development in the 2000s. But urban-rural inequality, like many other aspects of rural inequality, endures as an issue, notwithstanding the large structural transformation of the rural economy documented in this paper.

**Acknowledgements:** This paper is a revised, updated version of Dong, Bowles, and Chang (2010). We are grateful to the Editor of the *Review of Agrarian Studies* for encouraging us to undertake the task of including the most recently released data.

## REFERENCES

Ahlers, A. L., and Schubert, G. (2009), “‘Building a New Socialist Countryside’: Only a Political Slogan?,” *Journal of Current Chinese Affairs*, vol. 38, no. 4, pp. 35-62.

Blum, S. (2002), “Rural China and the WTO,” *Journal of Contemporary China*, vol. 11, no. 32, pp. 459-72.

Bosker, M., Brakman, S., and Garretsen, H. (2012), “Relaxing Hukou: Increased Labour Mobility and China’s Economic Geography,” *Journal of Urban Economics*, vol. 72, nos. 2-3, pp. 252-66.

Bowles, P., and Dong, X-Y. (1994), “Current Successes and Future Challenges in China’s Economic Reforms: An Alternative View,” *New Left Review*, no. 208, pp. 49-76.

Cai, F., Wang, D. and Du, Y. (2002), “Regional Disparity and Economic Growth in China: The Impact of Labour Market Distortions,” *China Economic Review*, vol. 13, nos. 2-3, pp. 197-212.

Caixin staff (2012), “China Premier: Protect Farmers’ Land Rights,” *Caixin*, Jan. 17.

Chan, K. W. and Buckingham, W. (2008), “Is China Abolishing the Hukou System?,” *The China Quarterly*, vol. 195, pp. 582-606.

Chang, H., Dong, X-Y., and MacPhail, F. (2011), “Labor Migration and Time Use Patterns of the Left-Behind Children and Elderly in Rural China,” *World Development*, vol. 39, no. 12, pp. 2199-2210.

Chen, S., and Ravallion, M. (2004), “Welfare Impacts of China’s Accession to the World Trade Organisation,” *World Bank Economic Review*, vol. 18, no. 1, pp. 29-57.

Cheng, T., and Selden, M. (1994), “The Origins and Social Consequences of China’s Hukou System,” *The China Quarterly*, vol. 139, pp. 644-68.

China Health and Nutrition Survey (CHNS), various years, available at <http://www.cpc.unc.edu/projects/china>.

China Statistical Yearbook, various issues, Beijing: National Bureau of Statistics of China.

Cornia, G. A. (1999), “Liberalisation, Globalisation and Income Distribution,” United Nations University-World Institute for Development Economics Research (UNU-WIDER), Working Paper, Helsinki.

De Brauw, A., Huang, J., Rozelle, S., Zhang, L., and Zhang, Y. (2002), “China’s Rural Labour Markets,” *The China Business Review*, Mar-Apr, pp. 2-8.

Dollar, D., and Kraay, A. (2004), “Trade, Growth, and Poverty,” *The Economic Journal*, vol. 114, no. 493, pp. 22-49.

Dong, X-Y., Bowles, P., and Chang, H. (2010), “Managing Liberalisation and Globalisation in Rural China: Trends in Rural Labour Allocation, Income and Inequality,” *Global Labour Journal*, vol. 1, no. 1, pp. 32-55.

Dong, X-Y., Song, S. and Zhang, X. (eds) (2006), *China’s Agricultural Development: Challenges and Prospects*, Ashgate Publishing, Burlington.

Fan, S., Kanbur, R., and Zhang, X. (2011), “China’s Regional Disparities: Experience and Policy,” *Review of Development Finance*, Jan-Mar, pp. 47-56.

Fan, S., Kanbur, R., and Zhang, X. (2009), *Regional Inequality in China: Trends, Explanations and Policy Responses*, Routledge Studies in the Modern World Economy, Routledge, Oxford and New York.

Fewsmith, J. (2001), "The Social and Political Implications of China's Accession to the WTO," *The China Quarterly*, vol. 167, pp. 573-91.

Fock, A., and Wong, C. (2008), "Financing Rural Development for a Harmonious Society in China: Recent Reforms in Public Finance and Their Prospects," World Bank Policy Research Working Paper, no. 4693.

Khan, A., and Riskin, C. (1998), "Income and Inequality in China: Composition, Distribution and Growth of Household Income, 1988 to 1995," *The China Quarterly*, vol. 154, pp. 221-53.

Khan, A., and Riskin, C. (2005), "China's Household Income and its Distribution, 1995 and 2002," *The China Quarterly*, vol. 182, pp. 356-84.

Kanbur, R., and Zhang, X. (2005), "Fifty Years of Regional Income Inequality in China: A Journey through Central Planning, Reform, and Openness," *Review of Development Economics*, vol. 9, no. 1, pp. 87-106.

Knight, J. (2008), "Reform, Growth and Inequality in China," *Asian Economic Policy Review*, vol. 3, no. 1, pp. 140-58.

Knight, J. (2013), "Inequality in China: An Overview," World Bank Policy Research Working Paper, no. 6482.

Kung, J. K. (2002), "Off-Farm Labour Markets and the Emergence of Land Rental Markets in Rural China," *Journal of Comparative Economics*, vol. 30, no. 2, pp. 395-414.

Li, C. (2003), "The 'New Deal': Politics and Policies of the Hu Administration," *Journal of Asian and African Studies*, vol. 38, nos. 4-5, pp. 329-46.

Li, L. C. (2007), "Working for the Peasants? Strategic Interactions and Unintended Consequences in the Chinese Rural Tax Reform," *The China Journal*, no. 57, pp. 90-106.

Lin, J. (2000), "WTO Accession and China's Agriculture," *China Economic Review*, vol. 11, no. 4, pp. 405-8.

Li, S., Sicular, T., and Zhao, Z. (2013), "Long-Term Trends of Income and Wage Inequality in China," ms.

Lohmar, B. (1999), *Household Labour, Migration and China's Rural Development*, unpublished Ph. D. dissertation, Department of Agricultural and Resource Economics, University of California, Davis.

Luo, J. (2014), "Village Head, Contractor among Seven Arrested over Land Protest Death," *Caixin*, Mar 26.

O'Brien, K. (2013), "Rightful Resistance Revisited," *Journal of Peasant Studies*, vol. 40, no. 6, pp. 1051-62.

OECD (2011), "Agricultural Policies and Support: China — Agricultural Policy Monitoring and Evaluation 2011," available at <http://www.oecd.org/agriculture/agricultural-policies/agriculturalpolicymonitoringandevaluation2011oecdcountriesandemergingeconomies.htm>, viewed on July 12, 2014.

Ravallion, M. (2006), "Looking Beyond Averages in the Trade and Poverty Debate," *World Development*, vol. 34, no. 8, pp. 1374-1392.

Ravallion, M., and Chen, S. (2007), "China's (Uneven) Progress against Poverty," *Journal of Development Economics*, vol. 82, pp. 1-42.

Sargeson, S. (2013), "Violence as Development: Land Expropriation and China's Urbanisation," *Journal of Peasant Studies*, vol. 40, no. 6, 1063-85.

Sicular, T., Xue, X., Gustafsson, B., and Li, S. (2007), "The Urban-Rural Income Gap and Inequality in China," *Review of Income and Wealth*, vol. 53, no. 1, pp. 93-126.

Sicular, T. and Zhao, Y. (2004), "Earnings and Labour Mobility in Rural China: Implications for China's WTO Entry," in Bhattachari, D., Li, S., and Martin, W. (eds) (2004), *China and the WTO: Accession, Policy Reform, and Poverty Reduction Strategies*, World Bank, Washington.

So, A. (2007), "Peasant Conflict and the Local Predatory State in the Chinese Countryside," *Journal of Peasant Studies*, vol. 34, nos. 3-4, pp. 560-81.

Summerfield, G. (2006), "Gender Equity and Land Reform in Rural China," in Jaquette, J., and Summerfield, G. (eds), *Women and Gender Equity in Development Theory and Practice*, Duke University Press, Durham.

Wan, G., and Zhou, Z. (2005), "Income Inequality in Rural China: Regression-Based Decomposition Using Household Data," *Review of Development Economics*, vol. 9, no. 1, pp. 107-120.

Wang, S. (2008), "The Great Transformation: The Double Movement in China," *Boundary*, vol. 35, no. 2, pp. 15-47.

Weitzman, M. and Xu, C. (1994), "Chinese Township Village Enterprises as Vaguely Defined Cooperatives," *Journal of Comparative Economics*, vol. 18, no. 2, pp. 121—45.

Yu, Yongding (2010), "The Impact of the Global Financial Crisis on the Chinese Economy and China's Policy Responses," Third World Network, Global Economy Series, no. 25.

Zhang, Q. and Donaldson, J. (2008), "The Rise of Agrarian Capitalism with Chinese Characteristics: Agricultural Modernisation, Agribusiness and Collective Land Rights," *China Journal*, vol. 60, pp. 25-47.

Zhao, Y. (2002), "Causes and Consequences of Return Migration: Recent Evidence from China," *Journal of Comparative Economics*, vol. 30, no. 2, pp. 376—94.

---

## *GLOSSARY*

<i>dibao</i>	A minimum income guarantee programme which has both urban and rural components. The rural dibao programme, which started in 2003-4, aims to provide a minimum level of economic security to rural residents.
<i>gouzhi nongji butie</i>	Subsidies for the purchase of farm machinery.
<i>hukou</i>	Household registration system. The system by which household members are assigned either urban or rural residency status and accompanying rights.
<i>liangshi butie</i>	Subsidies to grain production.
<i>liangzhong butie</i>	Subsidies for the purchase of improved seed varieties.
<i>nongzi zonghe butie</i>	Subsidies for the purchase of agricultural inputs
<i>xinzhang</i>	A “New Deal” policy orientation outlined by the Hu-Wen leadership which includes greater regional equality as one of its central goals.
<i>yihawenjian</i>	The “Number 1” policy document which identifies the central government’s top priority policy area and measures for the year.
<i>zhengcun tuijin</i>	A programme to provide essential infrastructure to the poorest villages.

---