

*Managing Liberalization and Globalization
in Rural China:
Trends in Rural Labour Allocation, Income and Inequality*

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ABSTRACT

China's integration into the global economy, while rapid, has been managed as part of a wider liberalization process. The structural changes in the rural economy arising from these twin processes have led to widening intra-rural inequalities. To address these, the central leadership has, in Polanyian manner, moved to counter some of the adverse effects of liberalization and globalization. We discuss this dynamic as it has affected rural China. We analyze results from a national data set covering the period 1991-2006 to assess the extent to which the state has been successful in protecting society from the advance of market forces. We find positive outcomes in terms of real earnings growth and poverty reduction but negative outcomes in terms of the rise in open unemployment and in terms of increasing intra-rural income inequality, although this was noticeably more pronounced in the 1991-2000 period than in the 2000-2006 period when more active government redistributive mechanisms were in place.

KEYWORDS

globalization, income inequality, labour allocation, liberalization, rural China

1. Introduction

China's rural economy has undergone radical change since the onset of economic reforms in 1978. In the 30 years since rural China has experienced successive waves of liberalization. The dismantling of the commune system in 1978 was only the opening, albeit dramatic, salvo in a continued and protracted extension of the market into the organization and coordination of the rural economy. The household responsibility system, which replaced the commune system, was followed by the expansion of off-farm rural industrial employment in Township and Village enterprises in the mid-1980s. These enterprises were rapidly privatized themselves in the mid-late 1990s. At the same time, rural-urban migration became a major feature of the Chinese economy as tens of millions of peasants moved around the country in search of work. Then, in 2001, China joined the WTO in a move which further opened the agricultural and rural economies to the forces and logic of global capitalism.

These changes enriched many peasant households but sparked resistance from others especially those dispossessed of their land as local governments reallocated land to more profitable industrial uses with little regard to those farming it (see Guo 2001). And yet, despite the extension of the market into every facet of rural life, it has not been a process which has been wholly spontaneous or unregulated. In fact, quite the contrary. The central government has made conscious efforts to manage the process of rural market liberalization over the past 30 years. The Chinese state, far more than in most developing countries, has sought to manage the path of liberalization and globalization so as to both take advantage of the market and to constrain its more negative dynamics (see Naughton 2007; Qian 2003). The idea of ‘managing the market’ is, of course, a common theme in the analysis of East Asian developmental states (Wade 1990) where the practices of deliberately ‘getting prices wrong’ and strategic interventions are highlighted.

In this paper, we argue that a Polanyian framework can be used fruitfully to explain the dynamics of government policy in rural China. We set out this framework in the next section and discuss rural change in China through this prism in detail in section 3. We examine the ways in which liberalization and globalization have been introduced into China’s rural economy and survey the ways in which the central state has sought to manage these processes by policy interventions.

We then analyze the outcomes of this dual process of liberalization and globalization on the one hand and government-sponsored amelioration efforts on the other in section 4. We focus on changing patterns of labour allocation in response to market expansion, rural incomes, and intra-rural income inequality. The data shows that the state has been successful in managing liberalization and globalization in such a way as to reduce poverty, raise average real incomes, and reduce inter-regional rural income inequalities. The evidence on inter-group income inequality, however, points to widening rural income gaps. We conclude that the biggest test of the leadership’s ability to manage globalization comes with the fallout from the current global recession.

2. Karl Polanyi in China

The path of liberalization and globalization in China has been heavily managed by the central state. The unleashing of market forces has been rapid and dramatic but has also been heavily influenced by the government policy of ‘economic reform’ which has set the parameters for market expansion. This has been the case not only for promoting the rapid development and intensification of market processes but also in attempts to control the outcomes of those processes. This ‘managing the market’ approach is suggestive of possible Polanyian processes at work. For this to be a plausible interpretation, a careful re-casting of Polanyi in the Chinese context would be required. The changes occurring over the past 30 years in rural China certainly qualify as being a ‘great transformation’ in their own right. The liberalization and globalization of the rural sector with the ever increasing roles of local, national and international markets have already been noted. But this expansion of the market has been used to facilitate the structural transformation of the Chinese countryside. That is, the rural economy has been transformed from a non-market self-sufficient sector to one increasingly reliant on wage labour, much of

which is employed in the industrial sector. The developmental transition from an agricultural to an industrial economy has transformed the rural sector with the creation of a rural-based waged labour which is employed in both rural and urban centres. The absorption of labour into local enterprises at the township and village levels as well as the mass migrations to the coastal cities for export-oriented employment have fundamentally changed the income sources and labour allocation patterns of households in rural China (Taylor, Rozelle and de Brauw 2003).

This multi-dimensional transformation of rural China has been facilitated by the expansion of the market. And yet, while there has undoubtedly been a progressive increase in the scope and scale of the market, and this has been a consistent thrust of government policy over the past three decades, this has also been a process which has spawned some kind of 'counter movement'. While there have been many instances of peasant protest and backlash, it would be far too much to suggest that there has been an organized civil society counter movement. Indeed, while local spontaneous protests and grievances have typically been addressed, any semblance of organized resistance – a 'counter movement' from below – has been swiftly destroyed.

But the constraining of markets can come from many sources and not just from civil society, from below. Munck (2006: 176) also reminds us that a 'counter movement' can also come from above, from 'enlightened managers of capitalism' or from 'reactionary backward-looking forces'. Munck (2006: 180) continues by applying the Polanyian framework to those advocating a social democratic form of globalization, to 'the managers of the newly globalized capitalism [who] sought to create a degree of sustainability for the machine they had created' by regulating the unbridled form of globalization. Munck (2006: 184) approvingly quotes Evans that 'elites, no less than the rest of us, need to resolve the Polanyi problem'.

This clarification of Polanyi's message opens up new ways of interpreting changes in the Chinese countryside. It suggests dialectic at work between the policy thrust to sequentially liberalize the rural sector and integrate it into the global economy as well as a desire to manage this process to protect society – and maintain social stability – against the worst excesses of an unregulated market. In China, with civil society effectively suppressed and confined to numerous but uncoordinated acts of local protest and resistance, the main agents in this dialectic are state elites themselves as both using the institution of the state to promote the extension of the market and to seek to regulate its workings – to 'create a degree of sustainability for the machine they had created' – and outcomes. Of course, the Chinese state operates at multiple levels but, as a first mapping of this process, we focus here primarily on the policies of the central state. Here the rhetoric of the 'harmonious society' promoted by the current leadership under Hu Jintao speaks directly to the need to ensure the social stability and sustainability of the reformed economy, making use of the market where possible but intervening to ensure equitable outcomes where necessary. It is this type of elite-driven Polanyian process that characterizes the Chinese leadership's outlook, especially under the new leadership.

This interpretive framework has been explicitly used to examine China's reform path by Wang (2008). He argues (2008: 18) that in the reform period 'the Chinese moral economy was transformed into a market society' from 1979 to 1999 with market society

emerging as the ‘dominating factor’ by the end of this period. The problems associated with market domination, including ‘increasing social polarization between rich and poor (e.g. regional disparities, urban/rural divide, inequality within urban China, and inequality within the countryside)’ required a change in policy and led to a ‘protective countermovement to re-embed the economy into the society.’ (ibid. 21) He argues that this countermovement can be dated back to 1999 although ‘most social policies were introduced after Hu Jintao and Wen Jiabao took office in 2002’ (ibid: 22) with ‘protective legislation and other interventions [as] the characteristics of this countermovement’ (ibid: 47). Wang provides examples in both urban and rural areas of policies which have been introduced to reduce inequality and to provide social security. In this way, he argues that China has moved from the initial reform period concentration on ‘economic policies’ to one now which concentrates on ‘social policies’.

We find Wang’s basic argument instructive and consider in more detail its application to the rural economy in the next section. In so doing, we argue that the temporal division suggested by Wang (i.e. reforms prior to 1999 and afterwards) has some traction but that the division he presents is too stark. In particular, the period since the turn of the millennium has been one in which it is true that social protections have increased but it also one in which the expansion of the market has intensified with WTO accession. That is, the latter period has been one in which *both* market expansion and countermovement have been promoted by government policy rather than one in which there has been a simple switch from one to the other. The outcomes of this dynamic are discussed in section 4.

3. Reforming China’s Rural Economy: Liberalization, Globalization and Social Protection

Prior to 1978, nearly three quarters of the Chinese population lived in rural areas and most of the rural residents were primarily engaged in agricultural production. Rural income was low with the majority of the rural population living below a dollar a day poverty line. Despite low levels of absolute income, the social protections offered by the commune system were extensive through the ‘iron rice bowl’. The commune system also emphasized self-sufficiency over trade and so internal markets were poorly developed. This was the case for goods and for factors of production; with respect to labour, the household registration system (*hukou*) clearly separated rural from urban workers, a characteristic of a long-standing and enduring ‘urban bias’ in China’s policy formation, and intra-rural labour mobility was also highly constrained (Cheng and Selden 1994). The role of the market in rural China was, therefore, strictly limited and subservient to the political logic of Maoist planning. However, this socialist legacy did mean that the subsequent expansion of the market took place against a backdrop of assets such as land and education being relatively equally distributed by developing country standards (Lardy 1983).

The economic reforms that began in 1978 were initially focused on agriculture with the liberalization of prices and a greater role for the market in allocating and rewarding labour, and consequent eroding and abolition of the previous

commune-provided social protections, the main policy thrusts. The main policy objective in promoting the expansion of the market as the primary labour allocation mechanism has been to facilitate the transfer of surplus out of the agricultural sector and into higher productivity industrial wage labour, thereby moving the rural economy towards fuller employment and higher earnings.

The first step was the implementation of the household responsibility system which significantly improved the work incentives of farmers and generated unprecedented growth in agricultural production and farm incomes between 1978 and 1984 (Lin 1987). Households were given limited use rights to land in return for fulfilling grain quotas. Output above this quota could be sold on free markets and led farmers to diversify into higher value crops. The success, in terms of income and output growth, of the liberalization of agricultural markets in the first five years of the reform program served as a model for the introduction of 'managerial responsibility systems' and the dual track pricing system into the urban, industrial sector in the mid-1980s. The reform and growth of the industrial system has been the focus of much international attention since but the rural economy has continued to be transformed and has remained an important area of policy reform for the Chinese leadership.

After the initial post-1978 boost in production, agricultural growth slowed but has still maintained a respectable average rate of output growth of 5.8 percent per year in years since 1984. Since the early-1980s, however, off-farm work has emerged as a main 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). It is estimated that in 1994 and 1995, 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 second large structural transformation which moved labourers from agricultural to non-agricultural activities and rapidly increased rural-urban migration, fueled 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 percent in 1981 to 12.5 percent 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 'modernization' which have sought to increase production scale mainly through the government promotion of so-called 'dragon head' 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 to shape the forms that it takes. Zhang and Donaldson (2008) document how these enterprises have led to the development of agrarian capitalism with the rise of

waged labour but conditioned by continuing strong norms of collective land rights which have led to a distinctive, and more egalitarian, form of agrarian capitalism than found in other developing countries.

The development of rural industry, however, has been unbalanced and concentrated in coastal regions with the less developed western regions experiencing great difficulty generating off-farm employment with the result that inter-regional inequalities were exacerbated (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 in the mid-1990s (Sicular et al 2007; Ravallion and Chen 2004).

Against this backdrop, China's accession to the World Trade Organization (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 by greater exposure to international market forces as well. 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 globalization which argue that the employment and income gains from trade liberalization in developing countries are captured disproportionately by the already better-off groups, with negative implications for inequality and for the poor (Cornia 1999).¹ The exact impact, however, is difficult to predict since, as Rodrik (2001) for example argues, the distributional outcome of globalization depends upon country specific conditions. Included here are the preexisting 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. Secondly, it depends 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. Thirdly, and most importantly, it depends on how effective public policies are in response to the adjustment associated with trade liberalization. Gains from trade liberalization are more likely to be shared equally in countries which 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 favorable initial conditions, in terms of a relatively equal asset distribution, would potentially permit the gains from greater specialization associated with WTO accession to be shared more broadly compared with the gains from similar liberalization in other countries. However, China's labour markets have historically been inflexible and highly segmented. As noted above, the household residential registration system impeded the free circulation of labour and kept rural residents from migrating into cities for many decades and 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).

China's WTO membership was predicted to 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.² The changes in relative prices of crops and goods would lead to labour reallocation between sectors. However, with labour market barriers and 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 worsening rural poverty. Even commentators in favour of greater liberalization through WTO accession accepted the problems that this would likely create problems for the agricultural sector (Lin 2000).

The legacy of inter-regional inequalities and rural-urban disparities which resulted from the liberalization policies of the 1990s were threatened with being further exacerbated by exposure to global market forces in the 2000s through WTO membership. The commitment to expanding market forces and allocation mechanisms 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 leadership has sanctioned and championed the extension of the market in the rural economy, it has also sought to manage this by securing distributional outcomes which will maintain social stability. A partial, limited and elite-driven (Polanyian) attempt to counter the unfettered market's potentially destabilizing effects is evident.

The 16th National Congress of the Communist Party (CPC) in 2002 announced that one of the main goals of the next decade was to the increase income of rural households, continue to shift massive amounts of labour out of farming as a way of doing this, and 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 based on a 'harmonious society'. Rhetoric aside, the aim was clearly to manage the distributional outcomes of further market liberalization and globalization to maintain social stability.

The increased importance accorded to addressing the rural economy and to managing the impact of further liberalization and globalization is reflected in 'Number 1' policy documents (*yihawenjian*). This document is the first policy document the Chinese government issues each year and indicates the policy priority for that year. Since 1978 the central government has issued eight 'Number 1' policy documents concerning rural development, five of which were issued in the early reform period from 1982 to 1986. The remaining three, however, were all issued after WTO entry in 2004, 2005 and 2006. For these three consecutive years, rural development was placed as the central government's highest priority. All three of the recent policy documents intended to address problems concerning agriculture, farmers, and rural areas (*sannong wenti-nongye, nong min and nongchun*).

The three 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: providing subsidies for grain production; reducing (and eventually abolishing) agricultural tax and rural levies; increasing off-farm employment and urban-rural migration; increasing infrastructural investment; enforcing nine-year compulsory education; and developing rural social programs such as the 'rural health cooperative scheme' and rural pension program. This represents an extensive set of policy measures designed to both enable rural labour to engage in the market economy on better terms and to increase levels of social protection when they are unable to do so.³ We discuss some of these measures below:

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.⁴ 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.

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 (People's Daily 2003; Summerfield 2006). In industrialized 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 ownership – through use rights – which have been strengthened, rather than diminished, over time.⁵ Increasing farmers' security of private use rights has therefore occurred at the same time as the massive reallocation of labour out of agriculture.

Fees, taxes and subsidies. A widely reported drag on rural disposable income growth has been the extra 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 levied 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, in the Tenth Five-year Plan of National Economic and Social Development (2001-05), the government eliminated grain procurement quotas, removed various levies by village and township governments, committed to gradually phasing out taxes on all agricultural products, and, notwithstanding WTO commitments, provided subsidies to grain producers (which were as high as 40 yuan/mu in some localities).⁶ On January 1, 2006, the People's Congress voted unanimously to terminate the Act of Rural Taxes and agricultural taxes in China, after millennia, became history. It is estimated that the rural tax and fees abolitions have increased household income by approximately 15 percent per year. Because rural levies and agricultural taxes were regressive in nature, the tax reform disproportionately benefited low-income households.⁷

Increasing government spending on the rural sector. The Tenth Five-year Plan also called for a substantial increase in expenditures on agriculture and rural development by governments at all levels. In 2003, the central government increased its expenditures on agriculture by 20 percent, and most of the new spending was investment in rural infrastructure such as roads and bridges, and irrigation, drainage, and drinking water projects. From a nationally representative village survey, Zhang et al. (2006) find that between 1998 and 2003, there were 9,138 investment projects in the 2,459 villages surveyed, 3.75 projects per villages, that the majority of the projects were launched after 2001 and that 87 percent of the projects were investment in public goods. Investment in villages in poor, inland regions appears to have occurred at a higher rate and grew faster than investment in richer villages. Zhang et al (2006) also find that three quarters of the projects in the poor provinces of Gansu and Shaanxi were subsidized by governments at higher levels, whereas subsidized projects accounted for only a quarter of the projects in richer Jiangsu. Nevertheless, national data do not show that agriculture has taken a larger share of total central government expenditure. In fact the share of agricultural expenditures in total government expenditure was 10 percent in 1990, 8.8 percent in 1996, 7.8 percent in 2000, 7.2 percent in 2002, 8.2 percent in 2004 and falling back to 7.2 percent in 2006.⁸ Despite rising real expenditures each year, the share of agriculture expenditure in total government expenditure still remains below 1990 level, casting some doubt on the impact of the rural sector's increased importance on the allocation of central government resources.

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. Rural education spending by the central government increased to 82 billion yuan to match these commitments.

To sum up, the security of the previously collectivized sector is now but a distant memory for residents in rural China. In its place has come a relentless wave of liberalization and now globalization, in the form of WTO accession; the market has consequently expanded its role in allocating labour and facilitating the 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 has also sought to manage the distributional consequences of the market-led reallocation of labour within the rural economy. These policies have intensified 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 and education policies. All have intended to mitigate the effects of market liberalization 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 realized.

4. Trends in Labour Allocation, Income and Inequality

The preceding discussion has provided an analysis of the rural economy which, in broad brush strokes, can be summarized as the consistent expansion of the market through liberalization, first domestically and then internationally through WTO accession, aimed at reallocating rural labour. In the latter part of the reform period, and coinciding with WTO entry, government policy also paid greater attention to the distributional consequences of market expansion. In this section, we examine the evidence and analyze the extent of labour reallocation and the trends in intra-rural inequality.

We use data from the China Health and Nutrition Survey (CHNS).⁹ The advantage of this survey data is that it has been collected for the years 1989, 1991, 1993, 1997, 2000, 2004, and 2006. 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 (autonomous region). These provinces are geographically dispersed and contain both coastal and inland areas, and from the north and the south. 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 2006.¹⁰ A typical household in our sample is poorer than its counterpart in the full survey.

The data from the survey demonstrate the extent to which the structural transformation of the rural economy has taken place over the past decade and half and its acceleration in the 2000s. Column 1 of Table 1 shows that in the early 1990s less than 12 percent of rural households had no members engaged in agricultural activities; by 2006 this has risen to just under 30 percent.¹¹ Column 2 shows even more dramatically the extent to which agriculture has ceased to be the exclusive employment for rural households. In 1991 nearly three quarters of rural households had members who worked only on-farm. By 2006 this was the case for only 13 percent of households. This decline

was particularly dramatic after 2000 when the rural economy was further 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 2006 over 40 percent of rural households had at least one member working as a migrant worker in an urban centre and over 80 percent of households had at least one member in waged employment (whether in rural agribusiness, rural industry or urban industry).

These patterns are also evident if we look, in Table 2, at the allocation of work hours by rural households.¹² We see that the percentage of time spent in agricultural work was halved between 1991 and 2006, from 72.2 percent to 35 percent of household hours while wage employment expanded from less than 20 percent of household labour hours to over 50 percent.

Table 1 Labour force allocation over activities in rural China (%)

	Household Farm		Non-farm self employment	Waged labour	Migration
	Farm only				
	(1)	(2)	(3)	(4)	(5)
1991	88.52	73.23	9.72	18.88	----
1993	84.92	69.33	10.31	20.98	----
1997	83.25	69.23	11.95	19.77	16.5
2000	78.26	61.55	13.91	25.74	24.8
2004	76.35	21.36	15.76	75.56	34.8
2006	70.07	13.19	15.06	84.21	41.2

Source: CHNS

Notes: (1)-(4) present proportion of rural population aged between 16 and 64 engaged in the respective activity and (5) presents proportion of the rural households which have at least one member living and working outside the village on either a temporary or more long-term basis.

Table 2 Labour hour allocation over activities (annual hours/household)

Year	Household farm		Non-farm self-employment		Waged labour		Total hours	No. households
	hours	%	hours	%	hours	%		
1991	3,018	72.2	347	8.3	817	19.5	4,181	1,758
1993	2,402	66.0	395	10.9	841	23.1	3,638	1,646
1997	2,249	64.9	457	13.2	760	21.9	3,467	1,792
2000	1,722	54.6	498	15.8	933	29.6	3,154	1,903
2004	1,405	39.1	483	13.4	1,709	47.5	3,596	1,832
2006	1,205	35.0	444	12.9	1,797	52.1	3,447	1,836

Source: CHNS

These labour reallocations have been a rational response by households to differential returns to 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 has increased over time, especially after 2000, although the extent to which this is due to rising labour productivity, price effects and the outcome of physical investments in infrastructure in the sector cannot be determined from this data.

Table 3 Rates of returns to farm labour, non-farm self employment and waged labour (yuan/hour)

	Farm labour	Non-farm self-employment	Waged labour	No. observations
1991-1993	0.081 (0.023)***	1.143 (0.126)***	0.919 (0.077)***	3,116
1997-2000	0.191 (0.041)***	1.264 (0.124)***	1.238 (0.081)***	2,956
2004-2006	0.415 (0.073)***	1.426 (0.187)***	1.496 (0.082)***	2,401

Source: CHNS

Notes: Rates of returns are the OLS estimates of the respective labour hours of the household earnings function. Earnings are measured in 1991 constant price. In the earnings function we control for average years of schooling and age of the labour force, land, assets, region and time. Heteroscedasticity-robust standard errors are reported in parentheses.

*** denotes significance at the 1 percent level.

This reallocation of labour into higher return activities has been behind the growth of rural incomes over the survey period. In real terms, average household income in the survey has increased by 90 percent over the period 1991-2006. However, within this, real earnings from farming have decreased while earnings from wage labour have risen substantially as Table 4 indicates. 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 from contributing just a fifth of total household earnings in 1991 to contributing three-fifths in 2006. Noticeably, both earnings growth and structural change were accelerated after 2000.

Table 4 Household annual earnings in rural China

	Total earnings	Farm income	Non-farm self employment		Wage income		Earnings per worker	
	<i>Yuan</i>	<i>yuan</i>	%	<i>yuan</i>	%	<i>yuan</i>	%	<i>Yuan</i>
1991	3,477	2,461	70.8	281	8.1	735	21.2	1,465
1993	3,656	2,197	60.1	508	13.9	950	26.0	1,576
1997	4,176	2,382	57.0	531	12.7	1,263	30.2	1,826
2000	4,548	1,921	42.2	902	19.8	1,725	37.9	2,009
2004	6,022	2,004	33.3	590	9.8	3,428	56.9	3,174
2006	6,601	1,806	27.4	875	13.3	3,920	59.4	3,821
Average annual rate of growth	%							
1991-2000	3.0	-2.7		13.0		9.5		3.5
2000-2006	6.2	-1.0		-0.5		13.7		10.7
1991-2006	4.3	-2.1		7.6		11.2		6.4

Source: CHNS

Note: Earnings are measured in 1991 constant price.

This dramatic structural transformation of the rural economy has raised average real earnings as shown in Table 4. To investigate the income inequality trends around this rising average, we can consider measures such as the Gini coefficient. The Gini coefficients reported in Table 5 suggest very little change in earnings inequality over the period, a conclusion also supported by the Theil index. It is perhaps noteworthy that the dramatic structural transformation of the rural economy occurred without increasing earnings inequality but it is also the case that the rapid growth of wage labour might have been expected to reduce earnings disparities.

Table 5 Earnings inequality in rural China

Year	1991	1993	1997	2000	2004	2006
Gini						
coefficient	0.480	0.459	0.438	0.476	0.434	0.461
95% C.I.	0.447	0.436	0.424	0.448	0.414	0.431
	0.513	0.481	0.453	0.504	0.454	0.491
Theil						
index	0.508	0.387	0.337	0.438	0.342	0.427
95% C.I.	0.412	0.329	0.304	0.339	0.284	0.331
	0.603	0.445	0.370	0.536	0.399	0.524

Source: CHNS

Notes: Inequality indexes are calculated based on earnings per worker in 1991 constant price.

To examine this point further, we decompose the Gini coefficient by earnings source. This indicates, as shown in Table 6, that inequality was indeed reduced by the spread of wage income over the period as earnings from this source became more widely accessible over time. Farm income that had been an equalizing factor became more unequally distributed while 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 which they could invest in these activities.

Table 6 Decomposition of Gini coefficient by sources of earnings in rural China

	1991	1997	2000	2004	2006
Share of each earning component					
Total earnings	100.0	100.0	100.0	100.0	100.0
Farm income	71.3	57.9	42.2	34.9	0.272
Non-farm household income	7.6	12.5	21.1	10.1	0.101
Wage incomes	21.1	29.6	36.7	55.0	0.575
Gini coefficient and concentration ratios					
Total	0.480	0.438	0.476	0.432	0.461
Farm income	0.550	0.509	0.513	0.623	0.620
Non-farm household income	0.916	0.916	0.920	0.923	0.923
Wage incomes	0.802	0.828	0.784	0.574	0.511
Contribution of each component to overall inequality					
Total	100.0	100.0	100.0	100.0	100.0
Farm income	67.0	41.3	21.0	27.6	19.2
Non-farm household income	8.8	17.0	17.0	15.7	26.4
Wage incomes	24.2	41.7	47.4	56.7	54.6
The effect of 1% increase in each component on inequality					
Farm income	-0.043	-0.166	-0.212	-0.073	-0.081
Non-farm household income	0.011	0.046	0.106	0.056	0.112
Wage incomes	0.032	0.120	0.106	0.018	-0.031

Source: CHNS

Notes: Inequality indexes are calculated based on earnings per worker in 1991 constant price.

The government policies discussed above, such as the central government infrastructure spending projects, were designed to increase rural productivity and to reduce inter-regional inequalities by being disproportionately targeted to the poorer provinces. As an indicator to gauge the success of this strategy, we report average earnings per worker by region in Table 7.

Table 7 Regional earnings disparity in rural China (yuan/worker)

	Coast	North East		Central		West	
	(1)	(2)	(2)/(1)	(3)	(3)/(1)	(4)	(4)/(1)
1991	2,269	1,591	0.701	1,262	0.556	929	0.409
1997	2,302	1,842	0.800	1,824	0.792	1,391	0.604
2000	2,665	2,237	0.839	1,591	0.597	1,717	0.644
2006	4,182	3,762	0.900	4,138	0.990	3,241	0.775

Source: CHNS

Notes: Earnings per worker are calculated 1991 constant price.

The results show that real earnings per worker were higher in rural areas in coastal provinces than in provinces in the other three regions. However, earnings per worker in the latter three regions all moved to convergence with the coastal provinces over the 15 year period. By the end of the period, earnings per worker in rural areas in the central region had reached parity with those in the coastal region, while those in the north-east had reached 90 percent of the coastal region's value and the west over 77 percent. Thus, rural inter-regional inequality declined significantly over the period with much of the decrease occurring after 2000.

The Gini coefficient and its decomposition reported in Tables 5 and 6 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, a matter of policy significance and important for any assessment of income trends. Furthermore, the data reported so far have analyzed how changing patterns of labour allocation have affected rural households' earnings profiles. To consider inequality further we also need to take into account non-labour incomes which include remittances from long-term migrants, gifts, subsidies and asset income. We therefore use the sample to construct income per capita for each income decile in 1991, 2000 and 2006. These results 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.

Table 8 Per capita income by decile in 1991, 2000, 2006 in rural China (constant prices)

Decile	Income per capita			Annual	Change as	Annual	Change as
	1991	2000	2006	rate of growth (%)	percentage of the 10 th decile income increase	rate of growth (%)	percentage of the 10 th decile income increase
1	327	264	371	-2.4	-1.9	5.7	1.9
2	451	427	744	-0.6	-0.7	9.2	5.6
3	584	627	1146	0.8	1.3	10.0	9.1
4	708	858	1554	2.1	4.5	9.9	12.3
5	841	1101	1966	3.0	7.8	9.7	15.2
6	990	1420	2547	4.0	12.9	9.7	19.8
7	1194	1810	3193	4.6	18.5	9.5	24.4
8	1469	2254	4002	4.8	23.6	9.6	30.8
9	1935	3111	5927	5.3	35.3	10.7	49.6
10	4565	7897	13575	6.1	100.0	9.0	100.0
No. of households	716	1,036	942	----	----	----	----

Source: CHNS

Notes: 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 1991 constant price.

The results show that between 1991 and 2000 the real income of the poorest two deciles decreased while that of all other deciles increased, with the rate of increase uniformly rising as income level increases. This suggests a clearly rising trend in income inequality. In the post-2000 period the pattern changes. In this period, all income deciles experienced rising real income growth. The average real income growth rate of the poorest decile was 5.7 percent per year although this was still lower than that of all other deciles, which now experienced similar income growth rates.

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 globalization. More households were able to benefit from the higher incomes provided by the expansion wage labour and 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 on education and infrastructure in less developed western regions. This combination of globalization 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 income inequality worsened although at a slower rate than in

the 1991-2000 period.

We can also use this income data to analyze poverty rates. As might be expected both from national trends and from the data on income provided above, poverty rates in the sample show a substantial decline. Table 5 indicates that the poverty rate, defined as a purchasing power adjusted dollar a day figure, fell by about a half during the 1991-2006 period. During the 1991-2000 period, however, the poverty rate was relatively stable and a large, one time reduction came after 2000.

Table 9 Per capita income and poverty rate in rural China

	Income per capita (yuan/year)	Poverty rate (%)	No. households
1991	1,110	35.2	716
1993	1,168	36.0	765
1997	1,319	32.0	846
2000	1,387	38.8	1,036
2004	2,820	16.8	988
2006	2,726	18.3	942
Annual rate of growth (%)			
1991-2006	5.2		
1991-2000	2.1	-----	----
2000-2006	9.9	-----	----

Source: CHNS

Notes: Income is the sum of labour earnings plus assets income, various subsidies, and gifts and remittances of relatives and friends. Poverty rates are calculated based on the \$1 a day poverty line. Adjusting the purchasing power parity, the dollar a day poverty line is about 700 *yuan* per person in 1991 constant price. The number of households is smaller in this table than that in Table 2 because of missing information on non-earned income.

The transformation of the rural economy and the increased reliance on market labour has also led to an increase in the percentage of unemployed rural labourers in the survey as shown in Table 10. That is, the number of people who no longer have access to household farmland – the traditional rural social safety net – has increased with the marketization process. As a result, rural open unemployment has increased significantly.

Table 10 Unemployment rates in rural China

Year	Unemployment rate (%)
1991	0.55
1993	0.94
1997	1.77
2000	2.19
2004	3.92
2006	4.08

Source: CHNS

Note: Unemployment rate is proportion of the unemployed in people participating in the labour force.

5. Conclusion

China's rural economy has undergone radical change since 1978. The dismantling of the commune system and the shift to household farming responding to both plan and market forces signaled the start of this change. Since then, liberalization and an increasing role for the market have, as in the urban sector, been the consistent reform program. Globalization must be seen within this context. That is, the globalization of the rural economy has been a part of the general liberalization program with accession to the WTO and its attendant price and regulatory effects, a further conscious development of this program rather than a purely 'external' force. That is, 'globalization' is many ways just another step on the Chinese leadership's chosen path of 'opening up to the outside world' and market-oriented reform. Nevertheless, it did have 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 exports following WTO succession increased the demand for migrant labour which the rural areas provided.

But just as the pace of 'opening up' has been managed by the Chinese policy elite so has its effects. The market-oriented reforms, with globalization marking its latest phase, have been planned by the leadership through a multitude of policy initiatives. In the rural economy, these have included: the move to the household responsibility system; the gradual reduction of planned quotas; the initial dual track price system and its subsequent abolition; the growth of township and village enterprises and their subsequent privatization; and the relaxation of restrictions on migration and the geographical labour mobility until China is home to the world's largest internal migration flows. Indeed, the large reallocation of labour which occurred in the rural sector was partly induced by the government's facilitation of increased migration (itself needed to respond to the export growth spurred by WTO accession).

And yet, at the same time as this progressive 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 elite policy priorities and when the current leadership's

goal of building a 'harmonious society' is premised on the need to ensure that the rural population enjoys the benefits of the rapid growth sustained over three decades. 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 has sought to manage the markets' inequalizing tendencies on rural inhabitants. In this limited and constrained way, we can see a Polanyian dynamic at work at the elite level in China; especially so after 2001 when the rural sector was exposed to greater international competition and integration as a result of WTO entry and when it became a recipient of increased central government redistributive attention.

To assess the success of this management of liberalization and globalization we have used data from the rural areas of nine provinces from the period 1991 to 2006. This data set has the advantage of enabling us to focus on rural trends over a fifteen 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 either in rural industry or in the form of rural-urban migration. This trend accelerated in the post-2000 period and by 2006, 84 percent of rural households had at least one member engaged in wage labour and 41 percent had at least one migrant member. Only 13 percent of rural households in the survey relied solely on agriculture for employment for its members and 30 percent of households did not farm at all. These trends point to the rapid growth of wage employment, the proletarianization of the rural labour force including a significant proportion who have no access to land (as shown by the rise in open unemployment despite rapid economic growth), and a structural transformation of the rural economy. These trends were facilitated by, and followed the logic of, market oriented reforms.

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 earnings around this rising trend was roughly constant over time. However, more disaggregated data including all income sources show that at the bottom end, real incomes decreased over the 1991-2000 period and that the incomes of the richest income groups grew the fastest. Post-2000 the pattern changed with all income groups experiencing real income growth with the growth rates being comparable for all income deciles except the poorest which continued to lag behind. The post-2000 period witnessed both a more rapid shift into wage employment, greater liberalization through WTO-governed integration into the global market, and a more concerted effort on the part of the central leadership to address the rural economy and raise rural living standards.

Given the complexity of 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 but we can say that the net effect has been positive in terms of real earnings growth and poverty reduction but negative in terms of the rise in open unemployment, and in terms of increasing income inequality (although this was noticeably more pronounced in the 1991-2000 period than in the 2000-2006 period).

However, the greatest test for managed liberalization is now to come in the wake of the global financial crisis and accompanying global recession. The transformation of the rural economy to a greater reliance on wage labour served to raise rural real incomes while the industrial sector was expanding rapidly. However, this situation has changed dramatically in the wake of global recession. Similar to the experience of rural workers during the Asian financial crisis but now intensified, many rural enterprises have gone bankrupt and rural migrant workers are being sent back to the countryside as a result of the export growth slowdown. Official estimates indicate that 26 million rural migrants have been sent back from the coastal cities already in the first two months of 2009 although other estimates are higher still. At any rate, the wage labour boom is now at least temporarily ended and rural households now faced the challenge of how to survive in its absence. With an increasing rural landless population and increasing numbers of unemployed rural labourers, the prospects for social strife are considerably increased. The central government has sought to manage liberalization and globalization to date and to constrain its negative impacts on economic insecurity and inequality although this has still stopped well short of a program of rural social welfare provision. Large scale infrastructure spending has been announced to generate employment in the wake of the global recession but whether this will be sufficient remains to be seen; economic growth has already slowed sharply. The post-reform period has seen China's leadership manage liberalization and globalization in the rural sector and, thousands of local disputes notwithstanding, has seen its strategy of elite management prove effective. The latest and still unfolding crisis of globalization, however, much more severe and long-lasting than the regional crisis of 1997, threatens to create the conditions for the rural 'counter movement from below' which the leadership has sought so assiduously to prevent from emerging in the past.

NOTES

¹ For a contrary view see, for example, Dollar and Kraay (2004).

² See Dong, Song and Zhang (2006) for the challenges facing China's rural sector under WTO.

³ See Wang (2008) for more extensive discussion of some of the rural social protections which are discussed only briefly here.

⁴ 'The Act of Household Registration to Break up the Urban-rural Divide', *Shangwu Zhoukan* (Business Watch), 2 April 2004, www.businesswatch.com.cn

⁵ See Dong (1996) for the feature of China's land tenure system in the post-reform period.

⁶ According to the CHNS, each household has an average of 6.5 mu of farmland and average net income per mu is 1120 yuan. So the subsidy is about 3.5 percent of the net farm income. Farm income accounts for 44 percent of total household income in CHNS.

⁷ 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

which 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.

⁸ Data is from the Agricultural Statistical Yearbook of China, 2006.

⁹ 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/china/home.html

¹⁰ Urban-rural inequalities are therefore beyond the scope of this paper. The urban:rural per capita income ratio is in the region of 3:1 and has been increasing over time. See, for example, Lu and Chen (2006) and Knight (2008). The relative income in rural households is important and has been a variable attracting policy attention. However, it would require a separate paper to analyse this dimension adequately.

¹¹ The 30 percent 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. We do, however, report figures on open unemployment in Table 10 which would largely be drawn from populations in the first category, i.e. those that have no access to land.

¹² 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.

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