



Emerging markets, evolving institutions, and the new opportunities for growth in China's rural economy

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Abstract

In this essay, our goal is to assess the state of China's rural economy and examine whether rural China is capable of participating in the sequence of economic events that will lead to modernization. We examine how agricultural productivity has changed, the nature of the shift of labor moving from rural to urban areas, how commodity markets have evolved, and how the rural industrial sector is adjusting the recent reforms. According to our own work and that of others, we show how the rural economy is beginning to be fundamentally transformed and is contributing to China's modernization. © 2002 Elsevier Science Inc. All rights reserved.

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1. Introduction

Two decades of economic reform in China have achieved remarkable agricultural and rural industrial growth. During the 1980s and 1990s, per capita grain availability has reached a level similar to that in developed countries and China has become one of the fastest growing food exporting nations in the world (Nyberg & Rozelle, 1999). Over the course of the reform period, rural incomes have risen dramatically and more than 200

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million people have escaped poverty during this time. However, when one visits the countryside in most parts of China, it is clear that the agricultural and rural sectors remain underdeveloped. Over 100 million people in China make less than one dollar per day; most are poor farmers (World Bank, 2000). Farms are small (about 1.2 acres on average) and highly fragmented, as each farm typically has multiple plots (China National Bureau of Statistics [CNBS], 2000).

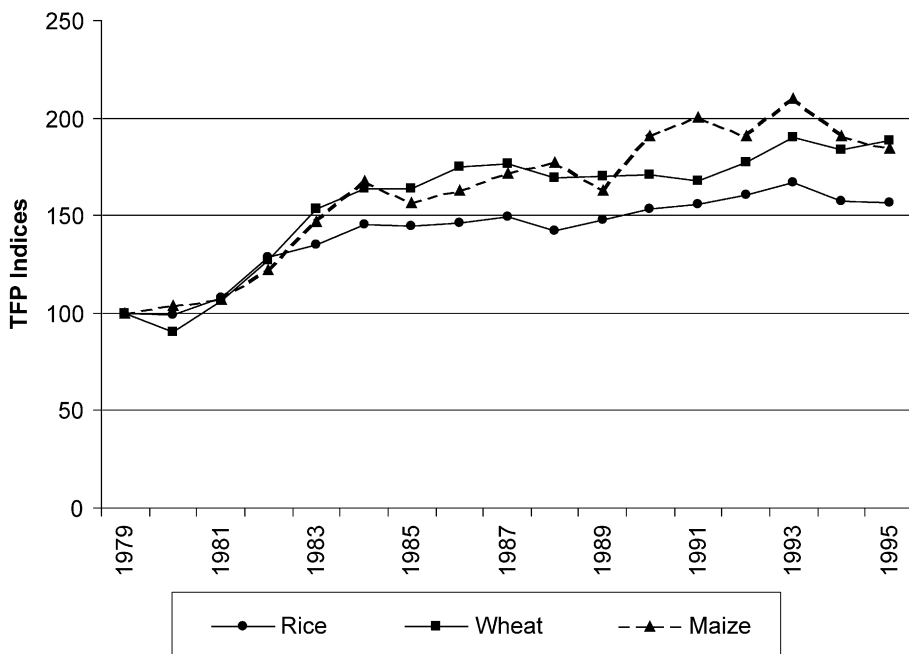
Although few would argue with the characterization of today's rural economy in China as still largely backward, there is considerable controversy regarding whether the conditions exist within the rural economy that will allow the sector to play a role transforming China from what it is today into a modern developed country in the coming years. The pessimists worry about stagnant agricultural incomes (Ministry of Agriculture [MOA], 2001), rising inequality (Yao, Zhang, & Hanmer, *in press*), poorly functioning land and labor markets (Yang & Zhou, 1996), and the disparities between urban and rural areas (CNBS, 2000). In contrast, the optimists have documented the recent investments in research and development (Jin, Huang, Rozelle, & Hu, 2002), the rapid rise in the off-farm employment (deBrauwer, Rozelle, Zhang, Huang, & Zhang, 2002), increasing specialization (Park, Jin, Rozelle, & Huang, 2002), and rising trade (Huang, 2001). It is our belief, however, that while each component of the ongoing debate has merit and, in some cases, is persuasive, the questions that are being addressed in some sense are incomplete. Missing is an examination of evidence of an even more fundamental question about whether or not the rural economy is in a position to begin to make the sharp structural changes that will transform it in a manner consistent with long-run sustained growth. If China is to modernize, a massive structural transformation of China's rural sector must occur over the course of the next two to three or four decades.

Hence, instead of concentrating measures that reflect shorter term, transitional states of rural welfare, we believe it is more important to address a more basic developmental question: do the socioeconomic conditions exist in the rural economy that will allow the rural economy to move in a direction that is consistent with China's long-run developmental needs. If one agrees that this is an important question, then low rural per capita income in 2002 is not necessarily an indicator of the failure of rural economic policies. The low base from which China began to develop two decades ago must be treated as a given initial condition. Current policymakers cannot necessarily be blamed for the nation's residual poverty or the fact that a large part of the population still relies on agriculture. Instead, we must make an assessment of rural China's ability to catch up with nations of the industrialized world. Will farm incomes be able to rise rapidly in the future, both absolutely and relative to those of their urban counterparts? Can the largest peacetime demographic shifts in human history from the farm to the city occur? We believe that the transformation, among other things, can only be effected if: (a) productivity in the agricultural sector is rising; (b) labor markets are emerging that can shift massive amounts of labor out of farming; (c) significant changes in regional cropping patterns appear and a higher volume of interprovincial trade can be sustained; (d) land tenure institutions evolve to provide more incentives to invest and facilitate an increase in farm sizes; and (e) a more efficient and flexible rural industrial sector can materialize.

In this essay, our overall goal is to assess the state of the rural economy in the early years of the 21st century. We want to answer the question of whether or not rural China is capable of participating in the sequence of economic events that are going to be needed for China to become a modern country. To meet this goal, we will center our attention on a subset of issues. We will examine how the productivity of agriculture has changed, the nature of the shift of labor moving from rural to urban areas, how commodity markets have evolved, changes in land tenure and land markets, and how the rural industrial sector is adjusting to recent reforms. Although in such a short essay we cannot be comprehensive, we believe our brief discussions of these issues will be able to show how the rural economy, in fact, is already beginning to be fundamentally transformed and is fully capable of participating in and contributing to China's modernization.

2. Rising agricultural productivity

One of the main components of a healthy development process is that the agricultural sector has to have strong productivity growth (Johnston & Mellor, 1961). Although there was concern in the early 1990s about the slow down of total factor productivity (TFP) in the



Source: Authors calculations; Data from MOA.

Fig. 1. Total factor productivity indices for rice, wheat, and maize in China, 1979–1995.

late 1980s after the rapid rise in the early 1980s (Wen, 1993), during the 1990s, productivity of rice, wheat, and maize, China's main staple crops, have risen strongly (Jin et al., 2002). Between 1979 and 1996, average TFP for all crops rose at more than 3%. The rise has exceeded 2% annually during the 1990s, far above the rate of growth of China's population, and a rate of growth that is considered healthy by international standards (Fig. 1).

Perhaps more importantly, China's agricultural sector is poised to continue to grow. Although some of the growth in the early 1980s came from reform measures, throughout the last 20 years, China's production growth, yield rises, and TFP increases have relied on public investment into research and development and other infrastructure investments (Fan, Zhang, & Zhang, 2002; Jin et al., 2002). More than 60% of China's TFP rise and almost all of the growth in rice yields came from new technologies (Hu, Huang, Jin, & Rozelle, 2002; Huang & Rozelle, 1996). Investments in irrigation raised cropping incomes of the poor by up to 50% in North China's maize and wheat areas (Huang, Rozelle, & Xie, 2002; Huang, Wang, Huang, & Rozelle, 2002). China's future commitment to increasing spending in conventional technology, biotechnology, and water control means that the productivity of agriculture should continue to rise as long as the past performance continues (Huang, 2001). In addition, if China's farmers begin to specialize in high-valued crops in which they have a comparative advantage, productivity should be able to rise even more.

3. The rise of urban migration

Development, however, is more than making the farming sector more productive. The shift of population from rural to urban and agriculture to industry is at the heart of the development process. Taylor and Martin (2001) have shown that, given China's income level in the 1980s, the demographic transformation is lagging. However, in recent years, the status quo has changed faster in the off-farm sector than in any other. The breakdown of barriers in both rural and urban areas in the mid-1990s started an unprecedented, and perhaps irreversible, flow of labor to the cities (Rozelle, Li, Shen, Hughart, & Giles, 1999). According to a new study by deBrauw et al. (2002), despite the macroeconomic conditions of the late 1990s, the surge in off-farm employment not only continued after 1995, it accelerated. Today, more than 200 million people work off the farm and more than half have jobs in the city. Almost 85% of rural households have at least one member in the off-farm sector.

More poignantly, new trends suggest that the current labor flows may be different than those in the past, and, more transforming. For the first time, rural workers show signs of specialization—especially when we examine their working behavior by age cohort (Table 1). Young workers are much less likely to work on the farm than older workers. In 2000, more than 75% of individuals between 16 and 25—that is, three out of four—work in the off-farm sector, almost double the rate of 16- to 25-year-olds in 1990. Almost all of them live away from home. Most of them have found their way to the city. Changes in regulations now allow farmers in some cities to purchase homes and gain access to social services. And, perhaps most telling, almost none of the young workers that work in an off-farm job now have ever farmed. Indeed, according to both deBrauw's descriptive and multivariate analysis, there is

Table 1

Comparison of labor participation rates in percentage of individuals that participate in the off-farm labor force by age categories, 1990 and 2000

Age range groups	Percentage with off-farm work in	
	1990	2000
16–20 ^a	23.7	75.8
21–25	33.6	67.2
26–30	28.8	52.5
31–35	26.9	47.6
36–40	20.5	43.3
41–50	20.8	37.6

Source: Authors' survey as reported in [deBrauw et al. \(2002\)](#).

^a For example, the table compares workers who were between ages 16 and 20 in 1990 with workers who were ages 16 to 20 in 2000.

robust support for the conclusion that the emergence of labor markets are such that they will be able to transform China's economy in the coming years.

4. Emerging commodity markets

In part some of the wrenching changes in the off-farm sector are being facilitated by equally dramatic changes in China's commodity markets. Since Imperial times, governments have sought to control grain markets and have placed food security at the top of its priorities. Reformers in the 1980s did not abandon this commitment. When transition began, unlike their counterparts in other transition countries, China's policymakers kept tight control of agricultural commodity markets long after they provided incentives to farmers by decollectivizing agricultural production ([Sicular, 1995](#)). Although commodity markets were allowed to slowly emerge in the early 1980s, even during the late 1980s and mid-1990s, the government explicitly attempted to restrict the flow of major goods ([Park et al., 2002](#)).

Despite the attempts by the government to control markets over the past decade, agriculture markets have not only emerged, they have flourished, becoming more and more like those in other nations. In a very real sense, the story of agricultural market development follows the process described by [McMillan and Naughton \(1992\)](#). In their parlance, reform, China-style, is like letting the "genie out of the bottle." Gradualism opens up an industry or sector of the economy, providing the agents initial incentives to exert more effort. The response of those in the sector, who initially earn substantial profits as new innovators, attracts more participants, which in turn creates competitive pressures and provides further impetuses to expand the reforms. Soon policymakers find themselves facing markets that are dominated by multiple, profit-seeking agents that face prices set by supply and demand and are often unaffected by policy pronouncements or efforts to curb profit-seeking activities.

The record of agricultural commodity markets shows that its market institutions are deepening rapidly. *Park et al. (2002)* measure the persistent fall of transaction costs of shipping commodities interregionally. The rise of integration is even more surprising since the monotonic rise moves through periods when the government tried to ban private grain sales and encourage regional self sufficiency (*Huang et al., 2002*). By the late 1990s, prices in all pairs of markets—even those remote from one another—move consistently together for rice, maize, and soybeans. Part of the rise is due to the massive effort to construct roads and improve communications in the 1990s (*Xie, 2002*). But, it is also due to the rise of hundreds of thousands private traders that now arbitrage price difference between regions—even across long distances—for razor-thin profit margins (*Sumner, Lee, Huang, Xie, & Rozelle, 2001*).

5. Institutional changes in land management and rural enterprises

The changes that are occurring to land systems and local enterprise management also demonstrate, the pervasiveness of the changes that are occurring in rural areas. The transformative nature of the changes are perhaps most surprising because land and local enterprises, at one time, were the most important assets under the control of local leaders (*Rozelle & Boisvert, 1994*).

Secure property rights are considered an important catalyst for economic growth, the argument being that investment can only flourish when there is a reasonable chance of reaping its rewards. Reduced risk of capital expropriation by the state historically has contributed to higher growth (*North & Weingast, 1989*). In the past, poor land rights have been blamed for low investment in agriculture and the absence of land rentals (*Brandt, Rozelle, Huang, & Li, 2002*). Blame has often focused on the rent-seeking behavior of local leaders and the rigidity of national policies. However, despite such a legacy, the empirical evidence clearly shows that land rights in China are having little effect on investment and production (*Jacoby, Li, & Rozelle, in press*). In a recent survey of 1200 farm households in six provinces conducted by the Center for Chinese Agricultural Policy, investment histories actually found almost no evidence of expropriations of investments in the land in rural China during the last 10 years. A vast majority of farmers do not believe their land will be reallocated for the coming years. In some of the more advanced provinces, such as Zhejiang, rental transactions are becoming so common that one third of the land is being rented, levels that approach those found during the era before Socialism. The rise of rental opportunities will almost certainly allow farmers to begin to enlarge farm size and increase total earnings.

Leaders also are beginning to let go of their control over enterprises, instead allowing them to be owned and managed by private individuals and become more subject to the forces of markets (*Kung, 1999; Li, 2001*). Any visitor to rural China immediately notices the widespread nature of the privatization movement. By the end of the 1990s, the move of local officials to privatize rural industries was deep and fundamental. Almost 90% of local government-owned firms have transferred their shares to private sectors partially or

completely by 1999. Much of the privatization has given control to the new managers. Moreover, analysis shows that many of the privatization moves creates new firms that are more efficient than those that they replaced (Li & Rozelle, 2000). In many of the firms, although in the initial years, new owners lay off workers, privatized firms are beginning to hire more workers and have positive employment impacts in the local economies. The firms that now dominate rural China are profit seeking and interested in technologies that will increase the efficiencies of their firms.

6. Poised for the development transition

Thus, in spite of being poor, and, regardless of the level of remaining poverty, rural China today is much different than it was 20 years ago. The changes to the rural economy in the past 20 years have been unprecedented. The overall record is one that few can find fault with. In making such an assessments, we do not want to minimize the existence of serious concerns that policymakers must address in the coming years. In a country the size of China, there are invariably going to be regions and subgroups of individuals that perform less well than others. Moreover, past accomplishments and the exciting new dynamics that are appearing in the economy do not always make it easier for those who are not benefiting from the changes. In fact, the rise of competition and the break down of barriers often cuts into profit margins and drives those who do not have a comparative advantage out of business. But, on the whole, most people have benefited, and more importantly, the conditions are now evolving such that the future growth of China should be able to continue and thrive.

Hence, in this essay, we have presented our argument for why we are optimistic. As China enters the 21st century, the rural economy is evolving to a point that it is ready to help China make the next step in its modernization push. Markets for labor, agricultural commodities, many inputs for farmers and rural industrial managers have flourished in recent years and are increasingly competitive and rational. As the government moves out of the direct provision of goods and services, however, it does not mean that it is not needed. Rather, the role of the government is shifting and needs to be redirected at providing public goods, overcoming market failure, and providing services that the private sector will not, but which will serve to further the transformation of China in the coming years. If this happens, those in the rural areas who are hard working and willing to take risk and move onto new areas and new lives will find themselves in the middle of the 21st century's most successful development story.

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