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Identifying the Turning Point of the Urban–Rural Relationship: Evidence from Macro Data

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Abstract

The urban and rural dual structure is a defining characteristic of the social and economic development process in China. With rapid urbanization, remarkable development of agriculture and rural modernization, the relationship between urban and rural areas is undergoing significant changes in China. Using macro data, we find that the relationship between urban and rural areas started to change in 2010. The transition has mainly been reflected in three dimensions: agriculture, rural areas and farmers. First, agricultural versatility has gradually increased, and the number of participants in leisure agriculture and rural tourism has grown rapidly since 2010. Second, the rural employment rate has risen gradually, and the share of rural employees in the tertiary sector has grown markedly. Third, the urban–rural income ratio and consumption ratio have begun to decrease, and the levels of consumption of domestic tourism by urban and rural residents are becoming small.

Key words: agricultural diversification, urban–rural consumption ratio, urban–rural income ratio, urban–rural relationship

JEL codes: J24, O18, Q12, R23, R58

I. Introduction

The urban and rural dual structure is a defining characteristic of the social and economic development process in China. The urban–rural relationship plays a vital role in China.

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Therefore, much research has been conducted on this topic. For example, Jing et al. (2015) discuss four models of urban–rural relationships in the world; that is, the US model of free flow and prioritization of urban areas, the Latin American model of free flow and bias towards the urban areas, the Asian model of restrictions and bias towards urban areas and the European model of free flow and urban–rural development. Moreover, Jing et al. analyze the characteristics of the different stages of the evolving urban–rural relationship since 1949. Duan et al. (2006) review the literature that has been published on urban–rural relationships since 1949. Some scholars have studied the evolution of the urban–rural relationship in China (Liu, 1996; Liu et al., 2015). Other scholars have developed comprehensive evaluations of the urban–rural relationship by constructing an index system to inspect the level of urban–rural interaction (Duan et al., 2005; Duan et al., 2007; Wu et al., 2007; Zhang et al. 2008).

In recent years, with the rapid modernization of agriculture, further rural reform and better conditions for people who return to their hometown and for migrant workers, the urban–rural relationship has changed substantially. As previous literature has shown (such as Liu, 2016), the term "urban–rural relationship" has changed from denoting one-way dependence by the rural areas on urbanization to two-way interaction between rural and urban areas. In 2017, the 19th National Congress of the Communist Party of China released a rural rejuvenation strategy, emphasizing that the fundamental goal is urban–rural integration. Therefore, it is important to rethink the urban–rural relationship, and to develop new practical and theoretical approaches in this area of research. In this paper we attempt to find using macro data the turning point when rural areas no longer depended on urbanization, but, rather, the relationship with urban areas was characterized more by two-way interaction. Despite being foundational knowledge for the research of the urban–rural relationship, this issue has not been researched extensively.

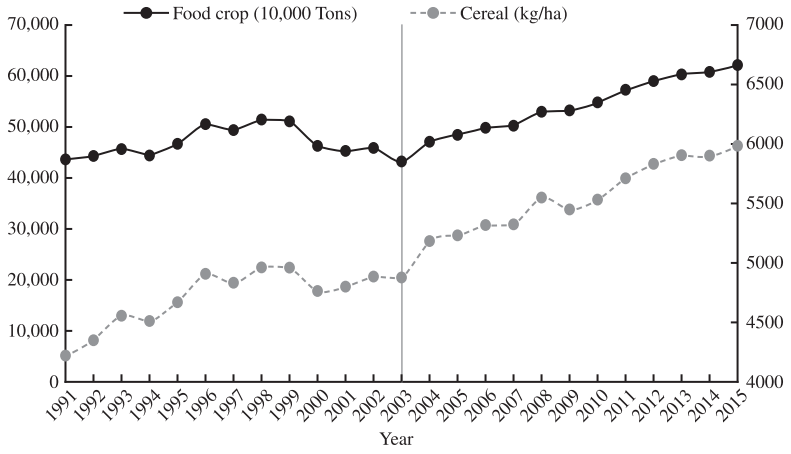
The present paper uses macro data to identify whether there was a turning point in the urban–rural relationship from three dimensions: agriculture, rural areas and farmers. The macro data are sourced from yearbooks of the China National Bureau of Statistics from 1978 to 2015. Because different yearbooks use different variables and certain data are missing, some of the variables start later than 1978 (around 1980, 1991 or 2005). Therefore, the present paper first assesses the viewpoints and evidence of studies published in recent years on the urban–rural relationship, and makes a judgment on the turning point in the relationship between urban and rural areas. Finally, the article concludes with strategies for providing a sustainable source of rural revitalization.

II. Changes in Agriculture

1. Strengthened Agricultural Functions

Food production is the basic function of agriculture. China's food crop and cereal production per unit of land increased between 1991 and 2015. The increases from year to year have also become less volatile. This is especially true of the period starting in 2003, when a pronounced and steady trend can be seen. Between 1991 and 2003, however, crop production fluctuated slightly. It increased gradually from 435.29 million tons to 508.38 million tons during 1991 to 1999, before decreasing to 430.7 million tons in 2003. It then increased 12 years in a row to 621.4 million tons from 2003 to 2015. Second, cereal production efficiency improved slightly from 1991 to 2015, starting with an increase from 4206 kg/ha to 5894 kg/ha during 1991 to 1996. From 1996 to 2003 it fluctuated before increasing again from 4872 kg/ha in 2003 to 5983 kg/ha in 2015 (Figure 1).

Figure 1. Food Crop Production and Cereal Production per Unit Area, 1991–2015



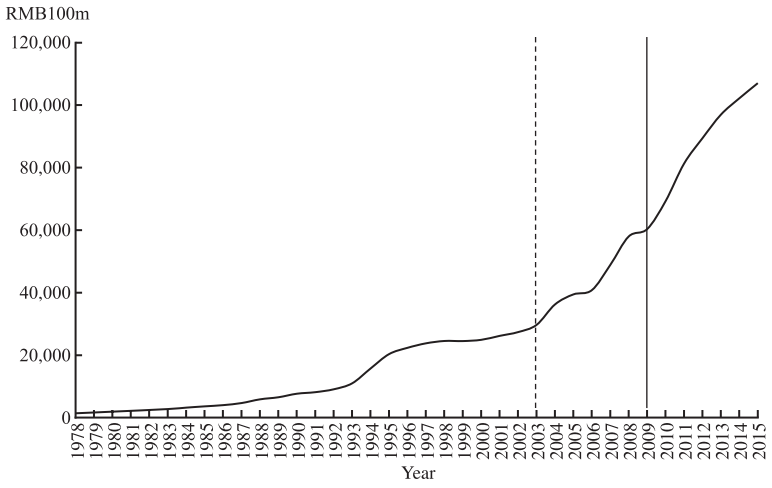
Sources: NBS, *China Statistical Yearbook*, 1992–2016.
Notes: Cereal Output (kg/ha) corresponds to the right-hand axis.

The basic function of agriculture (to produce food) was performed increasingly well from 1978 to 2015, as measured by the gross value of the output of agriculture, forestry, animal husbandry and fishing.[1] First, upon scrutiny of Figure 2, we find that agricultural

[1]The total value of the output of agriculture, forestry, animal husbandry and fishing refers to the total value of all kinds of service activities in these sectors, and reflects the production scale and output in a certain period. To some extent, changes in the relative sizes of the four sectors reflect the changes of the industrial structure in China.

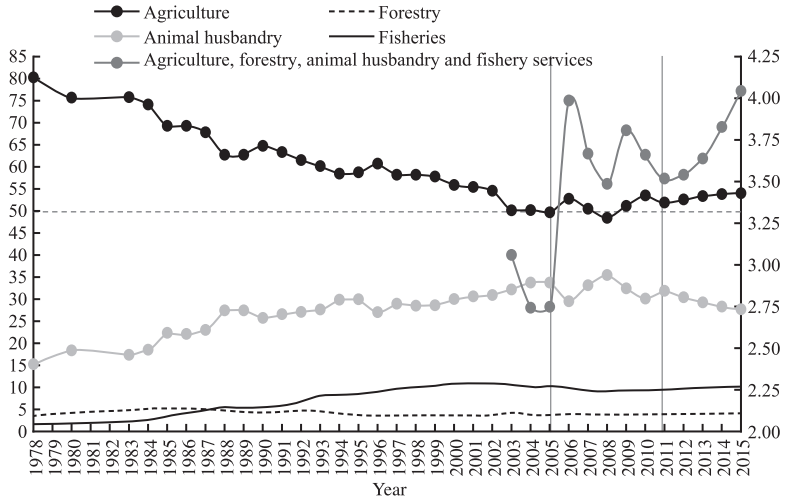
development entered a rapid growth phase in 2003. Growth was significantly lower in the period from 1978 to 2003 than from 2003 to 2015. Moreover, the growth was more stable from 2009 to 2015 than from 2003 to 2009. Furthermore, these two periods basically had the same growth trajectory: their curves look more or less the same. Second, as we can see in Figure 3, the composition of the output in terms of the four sectors of primary industry (agriculture, animal husbandry, fisheries and forestry) in China has been changing since 1978. Specifically, agriculture and animal husbandry were the biggest of the four, making up 80 and 15 percent of the gross value of output, respectively, in 1978. Fisheries and forestry comprised only 3 and 2 percent of output, respectively. From 1978 to 2005 a few changes occurred. Agriculture only represented 50 percent of output in 2005, whereas animal husbandry increased its share to 34 percent. This change in the composition of output was gradual and steady. Forestry's share stayed the same. From 2003, the share of agriculture as a primary industry output rose steadily, albeit slowly, and the share of animal husbandry decreased slightly. Forestry and fishing was also stable in this period. In addition, primary industry as a proportion of GDP increased sharply. The rebound of the agricultural output might be caused by the increase in the number of functions of agriculture and the increasing diversity of agricultural products. The growth of the primary industry might also imply that the integration of related sectors within the primary industry has improved.

Figure 2. The Combined Gross Value of Output in Agriculture, Forestry, Animal Husbandry and Fisheries in China, 1978–2015



Sources: NBS, *China Statistical Yearbook*, 1979–2016.

Figure 3. The Gross Value of Output in Agriculture, Forestry, Animal Husbandry and Fisheries (Each Represented as a Percentage of Total Output), 1978–2015



Source: NBS, *China Statistical Yearbook*, 1979–2016.

Notes: The National Bureau of Statistics of China has implemented new classification criteria for the national economy. The gross value of output in agriculture, forestry, animal husbandry and fishery includes the value of the output of services within agriculture, forestry, animal husbandry and fisheries. The service industries in agriculture, forestry, animal husbandry and fisheries correspond to the right-hand axis.

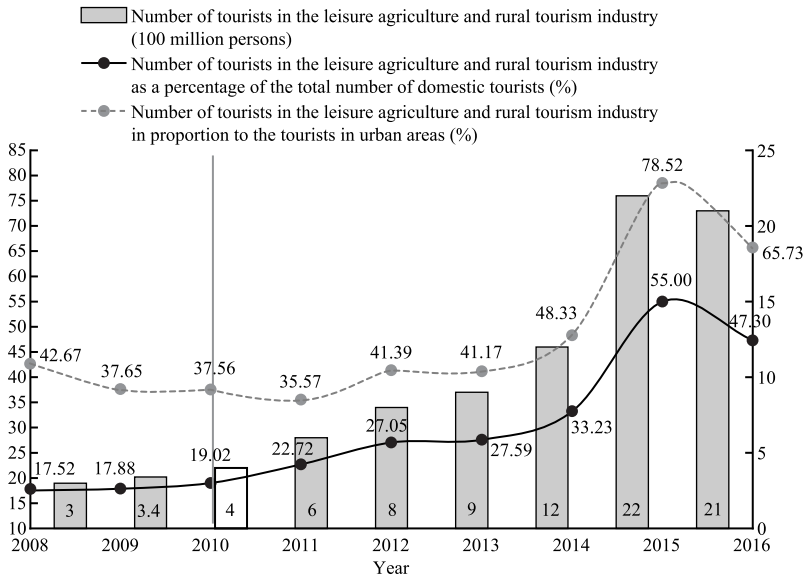
2. The Increase in Agricultural Diversity

With the reform of the rural collective property rights system, all kinds of resources in rural areas have been activated, such as natural resources and cultural resources, and agricultural functions have been multiplied, such as transportation, communication, culture, education, entertainment and health care. According to Figure 4, some new sectors in rural areas, such as leisure agriculture and rural tourism, have grown faster since 2010. First, the number of tourists has surged since 2010. Specifically, the number of tourists has increased gradually, from 300 million in 2008 to 400 million in 2010. The number of tourists jumped to 600 million in 2011: a 50-percent increase over 2010. The number continued to increase in 2014 and 2015, with 1.2 billion and 2.2 billion guests, respectively: an increase of 83 percent in 2 years.[2] Second, rural tourism and leisure

[2]In 2010, there were at least 150 million agritainment businesses in the country, with annual revenue of approximately RMB120bn. By 2016, the number of agritainment businesses increased to approximately 200 million, while the annual revenue exceeded RMB570bn, which was 4.75 times as much as in 2010.

agriculture seen as a percentage of total domestic tourism have also increased markedly since 2010,[3] from 19.02 to 55 percent, before dropping slightly thereafter. This means that for every 10 domestic tourists, 5 chose leisure agriculture or rural tourism. Third, leisure agriculture and rural tourism have risen as a proportion of urban tourism, from 35.57 percent in 2011 to 78.52 percent in 2015. In other words, for every 10 urban tourists there were 8 rural tourists.

Figure 4. Tourists in Leisure Agriculture and Rural Tourism in China, 2008–2016



Sources: NBS, *China Statistical Yearbook*, 2009–2017; Forward Business Information Co. (2016).
Note: The number of guests in leisure agriculture and rural tourism corresponds to the right-hand axis.

III. The Transformation of Rural Areas

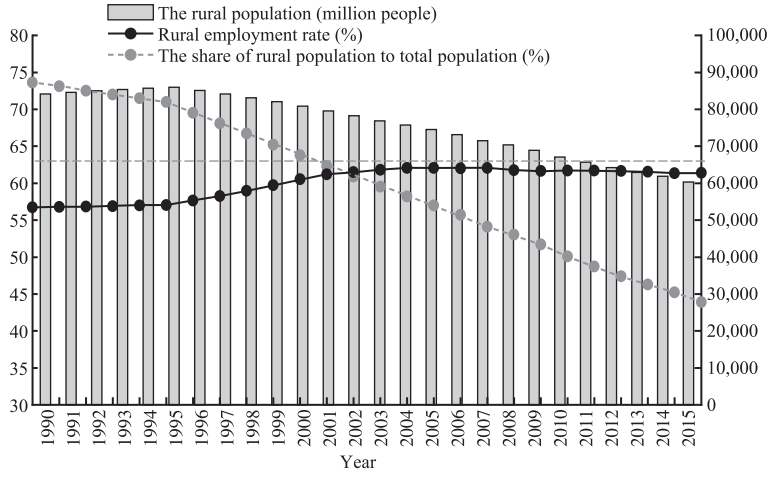
Most rural residents live in rural areas, where they are engaged in agricultural production, non-agricultural employment and consumption. Overall, the economic activities in rural areas saw significant changes around 2010. The details are as follows.

[3]According to the *China Statistical Yearbook*, the number of domestic tourists in 2008, 2010 and 2015 was 1,712 million, 2.1 billion and 4 billion, respectively.

1. Population and Employment in Rural Areas

With the development of urbanization, the rural population continues to decline; however, employment as a proportion of the rural population continues to rise, which can be seen in Figure 5. Specifically, the rural population decreased from 841.38 million in 1990 to 603.46 million in 2015. The rural population as a proportion of the total population decreased from 73.6 percent in 1990 to 43.9 percent in 2015. The share of employment in the rural population increased steadily. The employment rate in the rural population was around 56 percent during 1990 to 1995, gradually increased to 58 percent in 2004 and then remained at that level until 2015.

Figure 5. Population and Employment in Rural Areas, 1990–2015



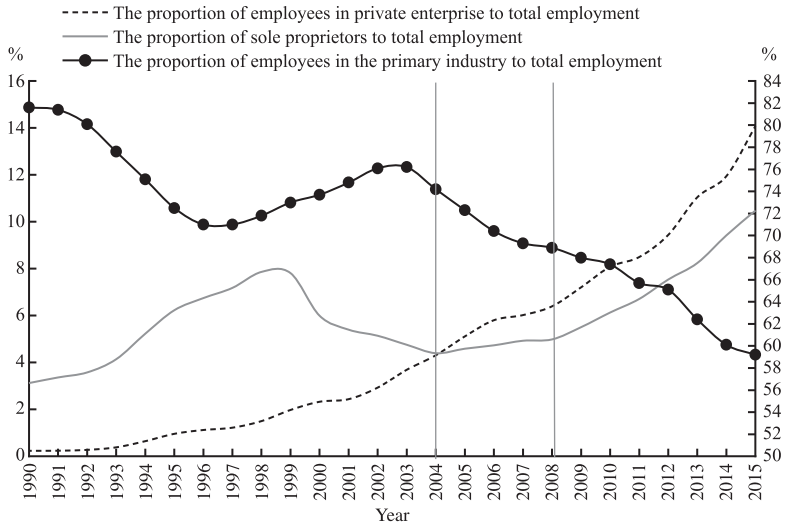
Sources: NBS, *China Rural Statistical Yearbook*, 1991–2016.
Notes: The rural population corresponds to the right-hand axis.

According to Figure 6, primary industry employment as a proportion of rural employment declined gradually; however, the proportion of employees in private enterprise and sole proprietors in rural employment increased slightly.[4] The share of employment in primary industry dropped from 81.6 percent in 1990 to 71 percent in 1997 and rebounded to 76.2 percent in 2003, before declining to 65.1 percent in 2012 and further to 59.2 percent in 2015. In other words, in 1990, 8 of 10 employees in rural China were engaged in primary industry, but only 6 were in primary industry in 2015.

[4]According to the National Bureau of Statistics of China, sole proprietors refer to those registered at the Business Administration Department and those who have been approved to engage in the sole proprietor sector, such as through self-employment and engaging in employment in households.

The numbers of employees in private enterprise and sole proprietors have surged in rural areas since 2004, which means that the economic vitality has been improving. The share of rural jobs in private enterprise rose steadily from 1990 to 2004, and the growth rate has been even faster since 2001. The proportion of sole proprietors fluctuated markedly during 1990 to 2004, increased modestly from 2004 to 2008, and has risen rapidly and steadily since 2008.

Figure 6. The Structure of Employment in Rural Areas, 1990–2015



Source: NBS, *China Rural Statistical Yearbook*, 1991–2016.
Note: The proportion of employees in the primary industry corresponds to the right-hand axis.

The National Bureau of Statistics has released *China Statistical Yearbook (Township)*[5] since 2014, which tracks the major socioeconomic indicators for all towns and villages in China. To some extent, this information can reflect the changes in rural areas. It can be seen from Table 1 that, compared to urban areas, the economic situation was changing in rural areas during 2013 to 2015. First, the number of jobs declined gradually in rural areas, dropping from 561.141 million in 2013 to 551.987 million in 2015. The proportion of primary industry jobs to total number of jobs decreased from 47 percent in 2013 to 45.66 percent in 2015, while the proportion of tertiary industry jobs increased slightly, from 25.23 percent in 2013 to 26.19 percent in 2015. Similarly,

[5]According to the *China Statistical Yearbook (Township)*, migrant workers refer to those whose *hukou* is in one rural area and whose work (in the agricultural, non-agricultural or other industries) is in another rural area.

the proportion of secondary industry jobs increased as well. Second, the proportion of migrant workers in rural employments continued to rise, increasing from 9.83 percent in 2013 to 10.27 percent in 2015. This meant that the rural areas were no longer only for local people but also for migrant workers. This trend might indicate that employment in rural areas has become as appealing as that in urban areas. Third, the number of jobs in the accommodation and catering sectors in rural areas has been increasing since 2013, from 377,600 in 2013 to 382,700 in 2015, and has played a key role in supporting rural tourism.

Table 1. The Situation of Villages and Towns, 2013–2015

Year	Employees in primary, secondary and tertiary industry				Immigrant employees		Employees in the accommodation and catering industry (million people)
	Total (million people)	Primary industry (percent)	Secondary industry (percent)	Tertiary industry (percent)	Total (million people)	Proportion (percent)	
2013	56,114.1	47.04	27.73	25.23	5518.3	9.83	37.76
2014	55,484.0	46.22	28.04	25.74	5602.4	10.10	37.89
2015	55,198.7	45.66	28.15	26.19	5667.9	10.27	38.27

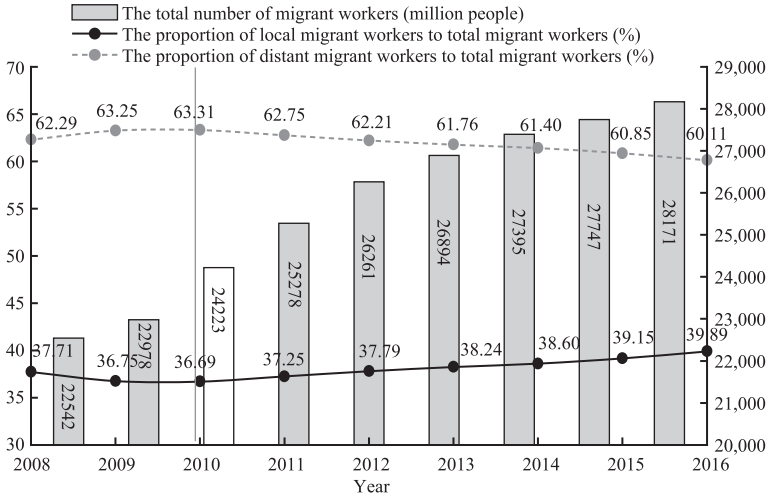
Source: NBS, *China Statistical Yearbook (Township)*, 2014–2016.

2. Migrant Workers in Rural Areas

The definition of a migrant worker is a former agriculture worker that: (i) has been engaged in non-agricultural industries for at least 6 months, and (ii) has a *hukou* (household registration) in a rural area. According to the *Migrant Workers Monitoring Survey Report*, which has been released since 2008, the non-agricultural employment of migrant workers has shifted from urban to rural areas. First, according to Figure 7, the total number of migrant workers increased from 225.42 million in 2008 to 281.71 million in 2016. The growth rate of migrant workers jumped from 1.93 percent in 2009 to 5.42 percent in 2010 (Figure 8). However, the growth rate dropped from 4.36 percent in 2011 to 1.53 percent in 2016. Second, the number of local migrant workers, defined as migrant workers in their hometown, started to increase in 2010, and at the same time the number of distant migrant workers, defined as migrant workers outside of their hometown, began to decline. The proportion of local and distant migrant workers was 37.71 and 62.29 percent, respectively, in 2008. The share of local migrant workers declined to 36.69 percent by the end of 2010, while the share of distant migrant workers increased to 63.31 percent. However, the proportion of local migrant workers has increased since 2010, rising to 37.25 percent in 2011, and continuing to rise to 39.89 percent in 2016, whereas the share of migrant workers outside of their hometown has declined

since 2010, dropping to 62.75 percent in 2011, and further to 60.11 percent in 2016 (Figure 7). Third, the growth rate of migrant workers outside of their hometown was higher than that of local migrant workers before 2010 (Figure 8). However, in 2010 the growth rate of local migrant workers became faster than that of workers outside of their hometown. In addition, the gap between them has been expanding since 2014. The growth of distant migrant workers was 3.5 percent, and the growth of local migrant workers was −0.66 percent: the former was 4.16 percent higher than the latter in 2009. However, the growth of local migrant workers changed from negative to positive (5.25 percent), and almost reached the same level as the growth of migrant workers outside their hometown (5.52 percent) in 2010. In 2011, the growth of local migrant workers started to outpace that of distant migrant workers, and the gap in their growth rates widened to 2.49 percent, before widening further to 3.14 percent in 2016.

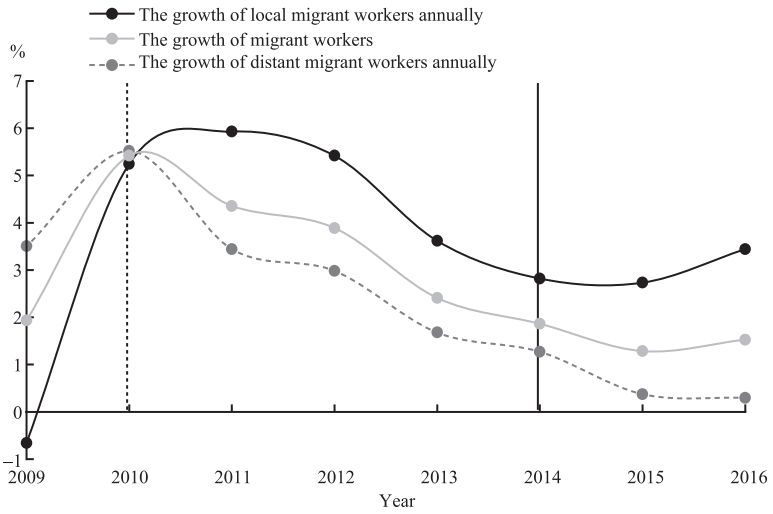
Figure 7. The Number and Structure of Migrant Workers, 2008–2016



Source: NBS, *Migrant Workers Monitoring Survey Report*, 2009–2017.
Note: The total number of migrant workers corresponds to the right-hand axis.

It was not so much that the local migrant workers loved their hometown as it was that their hometowns had become a good alternative to urban areas. Hometowns' ability to support employment is becoming closer to that of urban areas. Furthermore, migrant workers do not have to go to urban areas to do non-agricultural work, because work is becoming increasingly available for rural residents in rural areas.

Figure 8. The Annual Growth of Migrant Workers, Distant Migrant Workers and Local Migrant Workers, 2009–2016



Source: Calculated based on NBS, *Migrant Workers Monitoring Survey Report*, 2009–2017.

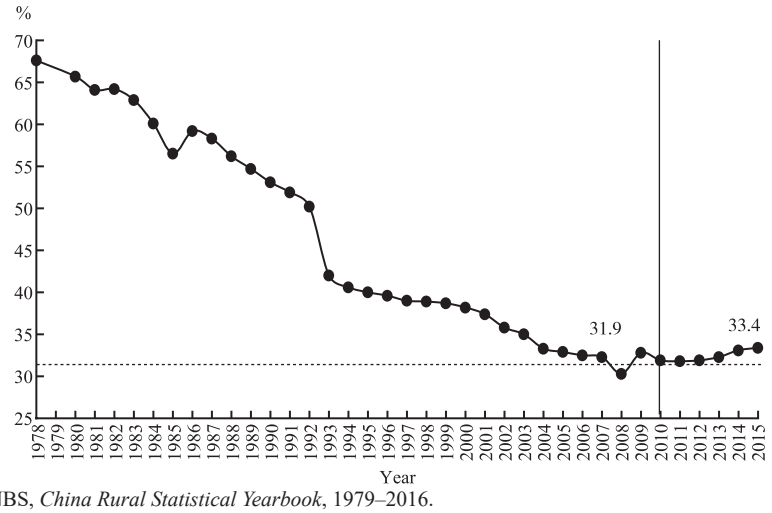
3. The Rural Economy

According to *China Rural Statistical Yearbook* released by the National Bureau of Statistics, total retail sales is defined as the total amount of consumer goods sold by all sectors of the national economy to urban and rural residents and organizations. To some extent, the size of total retail sales reflects consumer demand, and consumption plays a key role in economic growth. The total retail sales in rural areas largely reflect the consumption capacity of rural residents as well as the rural economic vitality.

The total retail sales data shows that the economic vitality of rural areas has become increasingly strong since 2010. It can be seen in Figure 9 that retail sales for rural areas as a proportion of total retail sales in the whole economy declined from 67.6 percent in 1978 to 31.9 percent in 2010. However, this proportion started to grow in 2010: it had increased to 32.3 percent in 2013 and to 33.4 percent in 2015. The total retail sales for rural areas consist of two parts, total retail sales for townships and for villages, and the proportion of the two has been changing since 2010. Before 2010, the retail sales for villages and for townships as a proportion of total retail sales in rural areas were around 65 and 35 percent, respectively. However, the situation has reversed since 2010. The retail sales for townships as a proportion of total retail sales for rural areas rose rapidly, to 58 percent, while that for villages declined to around 42 percent in 2010. The change might indicate that the rural economy has begun to form township agglomeration economies.

According to the *China Statistical Yearbook (Township)*, the number of free markets for agricultural products in rural areas decreased from 106,114 in 2013 to 92,887 in 2015. In contrast, the number of supermarkets over 50 m^2 in size increased markedly, from 449,282 in 2013 to 478,710 in 2015. At the same time, areas with planted vegetation in rural areas continued to grow, from 795.7 ha in 2013 to 942.9 ha in 2015. These changes have created a good environment for township agglomeration economies.

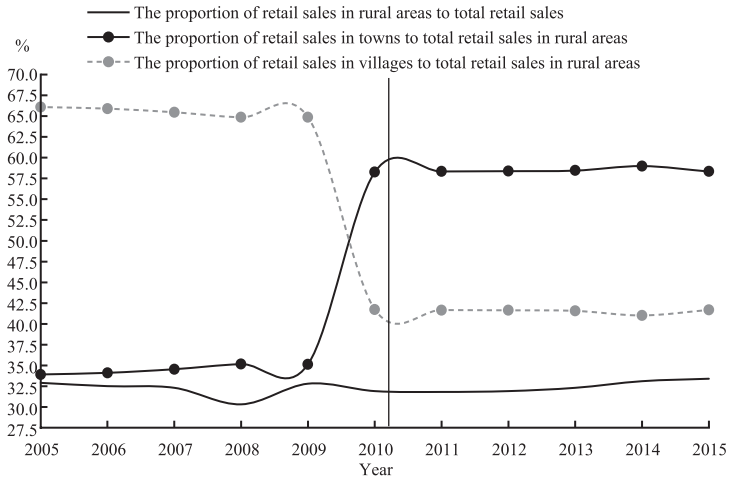
Figure 9. Proportion of Total Retail Sales in Rural Areas, 1978–2015



Source: NBS, *China Rural Statistical Yearbook*, 1979–2016.

Note: According to the latest revised reporting system, the data for rural areas include townships and villages.

Figure 10. Proportion of Retail Sales for Villages and Townships to Total Retail Sales for Rural Areas, 2005–2015



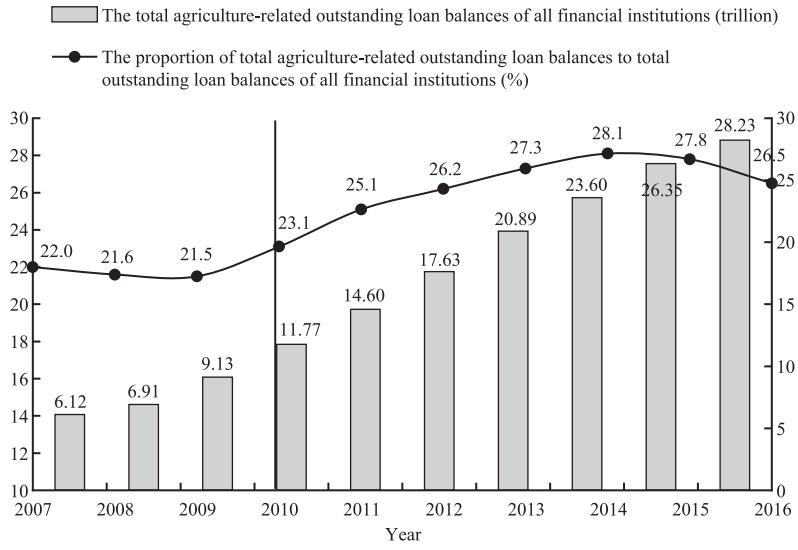
Source: NBS, *China Rural Statistical Yearbook*, 2006–2016.

Note: The retail sales of the rural areas are the sum of the retail sales of townships and villages.

4. Rural Finance

Investment in rural areas has increased since 2010. First, it can be seen in Figure 11 that total agriculture-related outstanding loan balances of all financial institutions increased from 6.12 trillion in 2007 to 28.23 trillion in 2016. Similarly, the proportion of total agriculture-related outstanding loan balances to total outstanding loan balances has risen since 2010, from 23.1 percent in 2010 to 26.5 percent in 2016. Further progress was made in modernizing agriculture because of inflows of capital to agriculture. Second, agriculture-related outstanding loan balances can be divided along regional lines into urban agriculture-related outstanding loan balances and rural agriculture-related outstanding loan balances. As we can see in Figure 12, rural agriculture-related outstanding loan balances increased steadily from 2007 to 2013, and rural agriculture-related outstanding loan balances as a proportion of total outstanding loan balances in China started to rise in 2010.

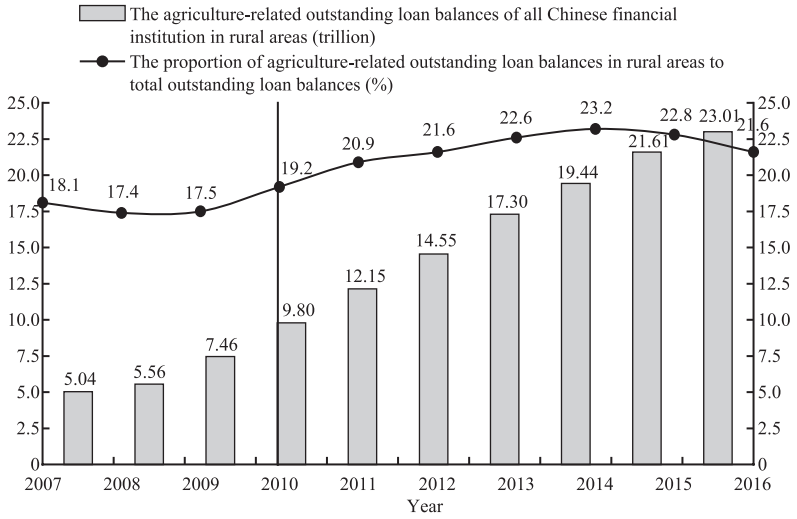
Figure 11. Agriculture-related Outstanding Loan Balances, 2007–2016



Source: The People's Bank of China (2016).

Notes: The total agriculture-related outstanding loan balances of all financial institutions in China corresponds to the right-hand axis. The total outstanding loan balances includes the outstanding loan balances denominated in domestic and foreign currency.

Figure 12. Agriculture-related Outstanding Loan Balances in Rural Areas, 2007–2016



Source: The People's Bank of China (2016).

Notes: The agriculture-related outstanding loan balances of all Chinese financial institution in rural areas correspond to right-hand axis. The outstanding loan balances is denominated in domestic and foreign currency.

IV. The Changing Living Conditions of Farmers

The consumption and the income standards of urban and rural residents reflect the urban–rural relationship. The urban and rural dual structure in China directly leads to the fact that the consumption level of urban residents has been significantly higher than rural residents. Before 2010, the urban–rural relationship could be summarized as the urban areas elevating rural areas. However, the government has since made great efforts to promote urbanization, which can also drive rural development. Rural areas entered a passive development stage. With the modernization of agriculture and the development of the rural economy, the consumption and income levels of rural residents have improved rapidly. The urban–rural gap has started to narrow, and the urban–rural relationship is entering a new phase. After 2010, the urban–rural relationship could be described as involving "urban–rural interaction." Urban and rural areas have become more equal in terms of economic growth, and the rural areas have become drivers of China's economic growth. According to macro data that we collected, this turning point was probably around 2010.

1. The Changing Income Ratio among Urban and Rural Residents

Between 1978 and 2015, the urban–rural income ratio in China changed substantially. First, from 1978 to 1985, the income ratio between urban and rural areas declined. This was due to the 1978 Reform of the Household Contract Responsibility System in rural areas, which stimulated rapid development of agricultural production while the economic development in urban areas was still relatively slow. Second, from 1985 to 2009, rapid urbanization led directly to the rapid increase of the urban–rural income ratio, from 1.86 in 1985 to 3.33 in 2009. The income level of urban residents was more than three times as high as the income level of rural residents. Third, since 2009, the urban–rural income ratio has declined rapidly, to 2.95 in 2015. The urban–rural income gap has begun to shrink since 2009. As can be seen from Figure 13, after correcting for inflation, it is evident that the urban–rural income ratio began to decline in 2009.

Figure 13. Average per Capita Business Income for Urban versus Rural Areas, 1978–2015

Source: NBS, *China Rural Statistical Yearbook*, 1979–2016.

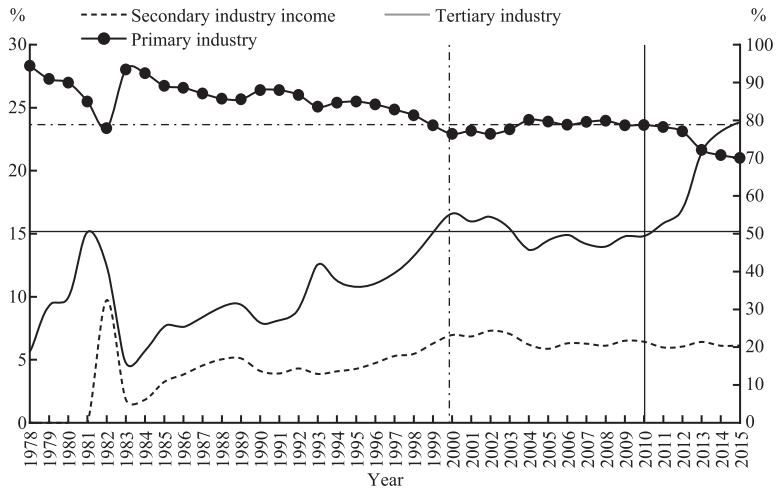
Notes: Urban–rural business income ratio in real terms (rural income = 1; CPI: 1978 = 100) corresponds to the right-hand axis.

It can be seen in Figure 14 that the structure of per capita income from businesses in rural areas has changed substantially since 2010.[6] First, prior to 2010, the per capita

[6]The per capita income of rural households consists of business income, wage income, property income and transfer payments. There were two reasons that we just considered business income here. First, we only have information about the composition of business income. Second, the highest share of business income for rural households was 75.6 percent in 1990; even though it decreased after 1990, the proportion of business income to rural households total income was 39.43 percent in 2015. Therefore, business income plays a key role in rural households income.

income from business in rural households mainly came from primary and tertiary industry. At the same time, primary production income as a proportion of business income declined from 94.41 percent in 1978 to 70.03 percent in 2015. In contrast, the share of business income from tertiary industry continued to increase, from 5.59 percent in 1978 to 23.84 percent in 2015. The share of business income from secondary industry was the lowest, but increased rapidly, from 1.84 to 6.13 percent in 2015. Second, from 1978 to 2000, the share of income from primary production continued to decrease, whereas the share from tertiary industry continued to increase. Moreover, during 2000 to 2010, the proportion of income from primary production, secondary industry and tertiary industry remained basically the same. However, the structure of income entered a new stage in 2010, where the proportion of primary production income began to decline, and the proportion of tertiary industry increased even more rapidly than before. These changes might be caused by the rapid increase in leisure agriculture and rural tourism since 2010.[7]

Figure 14. Composition of per Capita Business Income of Rural Residents, 1978–2015



Source: NBS, *China Household Survey Yearbook*, 2016.
Note: Primary industry corresponds to the right-hand axis.

[7]According to *Xinhua News*, there were over 1.9 million "agritainment" businesses in China, the number of tourists in leisure agriculture and rural tourism was more than 2.2 billion, and business income was over 440 billion yuan. There were over 7.9 million people employed, including 6.3 million peasant workers (see http://news.xinhuanet.com/politics/2016-05/09/c_128968441.htm).

2. Consumption Level among Farmers

As we can see from Figure 15, the urban–rural consumption ratio has declined sharply since 2010, which means the difference between urban and rural consumption continued to narrow. First, the consumption levels of both urban and rural residents increased steadily from 1978 to 2015. Annual urban consumption increased from 405 yuan/person in 1978 to 27,088 yuan/person in 2015; similarly, annual rural consumption rose from 138 yuan/person in 1978 to 9630 yuan/person in 2015. Second, urban–rural consumption and income have developed more or less in the same fashion. The urban–rural consumption ratio decreased from 2.9 in 1978 to 2.2 in 1990, surged to 3.7 in 2000, and then declined slightly before plunging from 3.5 in 2010 to 2.8 in 2015.

Figure 15. Per Capita Urban–Rural Consumption Ratio (Rural Residents = 1), 1978–2015

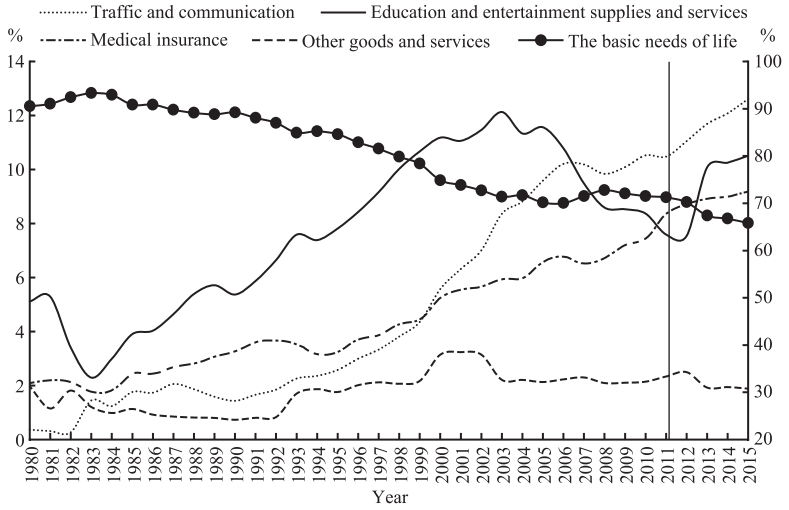
Source: NBS, *China Rural Statistical Yearbook*, 1979–2016.

As is evident from Figure 16, the composition of per capita consumption of rural residents in China has changed since 2011. The proportion of basic needs expenses decreased gradually from 1980 to 2015.[8] The share of per capita expenditures on basic needs in rural areas declined from 90.51 percent in 1978 to 71.34 percent in 2003. This proportion remained basically unchanged up to 2011, when it started to decline and ended up at 65.82 percent in 2015. The second largest consumption category between 1978 and 2007 was culture, education, entertainment and services. Expenditures on transportation and communications went from being the second largest to the third

[8]Basic needs expenses include food, clothing, housing, house appliances and services. Other expenses include transportation, communication, health care, culture, education and entertainment.

largest category. The proportion of health-care consumption increased steadily. These changes indicate that not only people's access to basic needs but also people's quality of life have improved.

Figure 16. Composition of per Capita Consumption of Rural Residents, 1980–2015

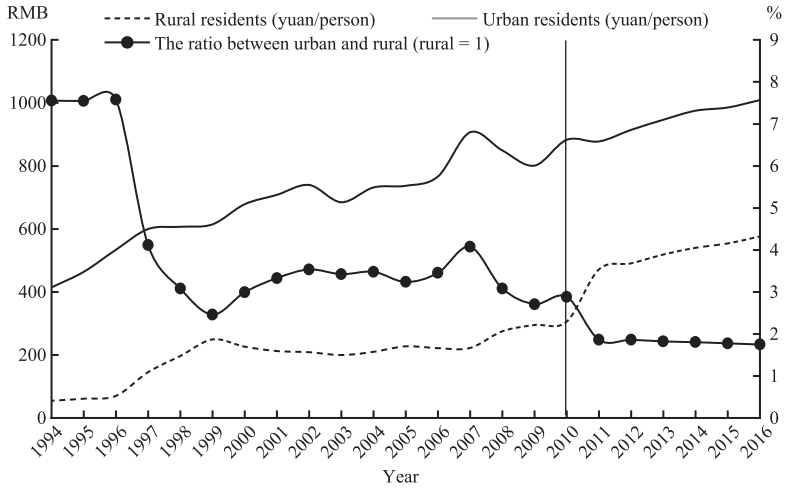


Source: NBS, *China Rural Statistical Yearbook*, 1979–2016.

Note: Basic subsistence expenditures are the sum of expenditures on food, clothing, housing, house appliances and services, which correspond to the right-hand axis.

Another indicator for the changing urban–rural relationship is tourism spending, as seen in Figure 17. First, per capita domestic tourism consumption continued to rise from 1994 to 2015. More specifically, urban per capita domestic tourism consumption increased from 464 yuan/person in 1994 to 985 yuan/person in 2015 per year, while rural per capita domestic tourism consumption increased from 54.9 yuan/person in 1994 to 554.2 yuan/person in 2015 per year. Second, the ratio between urban and rural consumption of domestic tourism declined. Urban residents' consumption of domestic tourism was 7.56 times that of rural residents in 1994, declined to 2.46 times in 1999, then fluctuated slightly and increased to 2.89 times in 2010, before declining to 1.78 times in 2015. These changes indicated that the gap between urban and rural quality of life has narrowed rapidly since 2010. In addition, the proportion of health-care consumption increased steadily. These changes indicated that not only people's access to basic needs but also their quality of life has improved.

Figure 17. Per Capita Domestic Tourism Consumption (RMB) and the Ratio between Urban and Rural Residents' Consumption of Tourism, 1994–2015



Source: NBS, *China Statistical Yearbook*, 1995–2016.

Note: The ratio between urban and rural tourism consumption corresponds to the right-hand axis.

V. Conclusions

It can be seen from macro-statistical data that the urban–rural relationship changed around 2010.

First, the overall agricultural production capacity has increased, and grain output has grown year after year. More specifically, the total value of the output of the agriculture, forestry, animal husbandry and fishing sectors as a proportion of GDP has risen rapidly since 2011. At the same time, the proportion of agriculture in primary industry has increased, while in contrast the proportion of animal husbandry in primary industry has declined. The results might imply that agricultural versatility plays a vital role in promoting the development of agriculture. In addition, the leisure agriculture and rural tourism industry has developed markedly since 2010.

Second, with the rapid development of urbanization, the rural population is continuing to decline; however, the share of rural employment to rural population has grown steadily. The proportion of primary industry employment to total rural employment has continued to decline since 2008; however, at the same time, the proportion of sole proprietors in total rural employment has risen. The number of migrant workers in China increased from 2008 to 2016. However, the proportion of local migrant workers has risen since 2010, and

the growth was higher than that of distant migrant workers. The consumption capacity in rural areas has increased since 2010. More importantly, most retail sales have been in townships rather than villages. Agriculture-related loans as a proportion of all loans of all financial institutions in China has grown gradually since 2010.

Third, the urban–rural income ratio and the consumption ratio have changed considerably since 2010. The urban–rural income ratio has begun to rise since 2009. This might be caused by a change in the structure of business income in rural areas since 2010. For example, the proportion of tertiary income to total income has risen. At the same time, the proportion of primary income to business income has declined. The urban–rural consumption ratio has declined markedly since 2010. Moreover, the proportion of consumption on food, clothing, housing and household appliances has begun to decline since 2011, while the proportion of consumption on transportation, communication, culture, education, entertainment and health care has increased rapidly. The ratio of urban to rural consumption on domestic tourism started to decline in 2010.

Rural areas have developed significantly since 2010, and the urban–rural relationship has started to enter a new phase. Moreover, the rural economy has provided new energy for modernizing the economy in China. And the new energy comes from changes in agricultural, rural areas and farmers. To activate the various non-agricultural sectors in rural areas, it is necessary to further promote the rural property rights system reform. At the same time, to ensure adequate resources are available for rural rejuvenation, it is necessary to promote the equalization of infrastructure and public services between urban and rural areas.

References

Duan, J., Q. Lu and Y. Y. Wen, 2005, "A comprehensive evaluation of urban–rural interaction and conjunctional development of China," *Zhongguo Renkou Ziyuan yu Huanjing* (*China Population, Resources and Environment*), No. 1, pp. 79–84.

Duan, J., Y. Y. Wen and Q. Lu, 2006, "Review and evaluation of researches on urban–rural interaction development in the last fifteen years," *Dili Kexue Jinzhan* (*Progress in Geography*), No. 4, pp. 118–28.

Duan, J., Y. Y. Wen and Q. Lu, 2007, "Comprehensive evolution on urban–rural interaction development level in central China," *Nongye Xiandaihua Yanjiu* (*Research on Agricultural Modernization)*, No. 1, pp. 7–10.

Forward Business Information Co., 2016, *In-Depth Research and Strategic Planning Analysis Report of Agricultural and Rural Tourism in China*, 2015–2020 [online; cited December 2017]. Available from: https://bg.qianzhan.com/report/detail/5b0a5f4b445b4a70.html.

Jing, P. and G. Xie, 2015, "The international experience of the interaction between urban and rural areas and its enlightenment to China," *Gaodeng Caijing Jiaoyu Yanjiu* (*Journal of Higher Education Finance*), Vol. 18, No. 2, pp. 50–68.

Liu, S. H., Y. Y. Ren, D. M. Ma and M. M. Yu, 2015, "Retrospect and analysis to the progress, predicament and frame in the urban–rural relations of China since 1949," *Ganhanqu Ziyuan yu Huanjing* (*Journal of Arid Land Resources and Environment*), Vol. 29, No. 1, pp. 6–12.

Liu, S. Y., 2016, "From 'rural China' to 'urban–rural China'," *Zhongguo Xiangcun Faxian* (*Chinese Rural Discovery*), No. 6, pp. 30–37.

Liu, Y. J., 1996, "Historical evolution analysis of urban–rural relationship in China," *Dangdai Zhongguoshi Yanjiu* (*Contemporary China History Studies*), No. 2, pp. 1–10.

NBS (National Bureau of Statistics of China), 2009–2017, *Migrant Workers Monitoring Survey Report*, Beijing: China Statistics Press (in Chinese).

NBS (National Bureau of Statistics of China), 2014–2016, *China Statistical Yearbook (Township)*, Beijing: China Statistics Press (in Chinese).

NBS (National Bureau of Statistics of China), 2016, *China Household Survey Yearbook*, Beijing: China Statistics Press (in Chinese).

NBS (National Bureau of Statistics of China), various years, *China Rural Statistical Yearbook*, Beijing: China Statistics Press (in Chinese).

NBS (National Bureau of Statistics of China), various years, *China Statistical Yearbook*, Beijing: China Statistics Press (in Chinese).

The People's Bank of China, 2016, *China Rural Financial Services Report 2016*, Beijing: China Financial Publishing House (in Chinese).

Wu, L., 2007, "Historical evolution analysis of urban–rural relationship in China: 1949–2006," *Zhongguo Jingjishi Yanjiu* (*Research in Chinese Economic History*), No. 1, pp. 23–31.

Zhang, W. F. and W. Zhao, 2008, "A synthetic evaluation urban–rural interaction and conjunctional development of Gansu Province," *Diyu Yanjiu yu Kaifa* (*Areal Research Evaluation Urban–Rural*), Vol. 27, No. 4, pp. 26–30.

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