

MIGRATION OF SURPLUS AGRICULTURAL LABOR IN THE PROCESS OF ECONOMIC TRANSITION*

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Abstract: This paper on the migration of the surplus farm labor during the economic transition of China, focuses on a case study of Zhejiang, China's eastern coastal province, with 45 million population and located in relatively developed area since the reform in 1978. The background and mechanism of Chinese surplus farm labor migration are discussed briefly in the first section. Detailed analysis and development of this topic are based on the Zhejiang case, and consists of two parts: a review of the migration history of surplus agricultural labor in Zhejiang since the 1978 reform; and further analysis and key points are given in the second part. The third sector focuses on challenges and recommendation of policies.

Key words: surplus agricultural labor, migration, China

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INTRODUCTION

The structure of labor in the economic society is a key indication of the development of the nation; and based on the situation of China, relates to the migration of its huge surplus agricultural labor, which, based on a 1998 estimate, accounted for at least 26% of its 450 million rural labor force.

Before the development of the 1978 reform of the Chinese economic system, the model of the economic development was heavily influenced by Russia, i. e. . Chinese central government gave priority to development of the capital-intensive heavy industry in order to establish a basic national industry system as soon as possible. Unfortunately, this model in reality just absorbed a small number of laborers, mainly from cities, not rural areas. It not only caused stagnation of Urbanization, but also created serious separation of rural and urban economic structures, and adversely affected the structure of the typical dual economy, wherein the relatively developed industry in big cities co-exists with the less-developed rural economy. Almost over 80% of the total population lived in rural areas, and engaged in quite low income farming.

Since the reform started in 1978, many policies favorable to the rural areas and farmers have been adopted, one of which was to loosen the restriction on the movement of agrarian labor and encourage them to transfer to non-agricultural sectors called township-village enterprises (TVE). Due to the notably limited capacity of cities to take in a large number of migrants, there are still barriers for rural labor to immigrate to the big city. Also, traditional policies are biased in favor of citizens, so the transferred labor from rural areas do not get the same benefits as the citizen have, such as stable employment, preferential medical care, lower rate housing and so on, even though the reform of the market oriented in those areas is going on.

Therefore, the majority of transferred farm labor has to seek a solution in the rural areas. Usually, with the help of village collective organizations he belongs to, or supported by local township government, he establishes various small factories in the local area according to the conditions of natural and human resources; he still lives in the original place and works for the local non-agricultural sectors. In reality, this kind of migration of surplus farm labor is called in China "Leaving from agricultural sector with-

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out moving out of the rural area, working in the factory without entering the city." In fact, the migration of the Chinese agricultural surplus labor mentioned above should not be regarded as real migration of population but just change of occupation, which is quite different from the experience of most western countries. A 1998 year end estimate indicated that about 35% of the rural labor in China worked in the non-agricultural sectors; but that most of them are still engaged in farming. They are actually part-time farmers. This situation can be attributable to their unwillingness to give up their contract right to rent village land at low price for 30 years, according to the central government policy. In other words, the ownership of the rural land in China now rests with the village collective concerned, but the farm family owns its use right. The separation of land ownership and its use right in China is regarded as one of the most successful Chinese reform policies. It is also quite easy for individual farming families to manage their small scale farming while their family income comes mainly from non-agricultural activities. In addition, it is a kind of safeguard for farmers to keep the land use right, so that they can return to farming for survival in case the non-agricultural enterprise they worked for gets bankrupt.

The situation above benefited the individual farm family, but also had certain negative impact on the agriculture production, especially grain production, due to its relatively lower profit because of the extremely small production and declining price. Part-time farmers under this situation may not exert much effort in farming, and may leave their arable land or just be satisfied with low yields for self-sufficiency. This leads to the fluctuation of overall grain production. The great number of farm laborers working in the non-agricultural sectors in rural areas has made Chinese rural industry (Township Village Enterprise, i.e. TVE) booming in the past 20 years. The rate of its growth is around 20%. Over two-thirds of the GDP of some eastern coastal provinces are contributed by the TVE, which is the most vigorous source supporting the sustainable growth of the Chinese economy since the 80's. However, there are still many surplus agricultural laborers in China. A recent estimate showed

about 0.12 billion, almost the same number transferred since 1978. In fact, the number may be even more if agricultural technological progress and population growth is taken into account.

Therefore, in order to support the sustainable growth of the economy and development of industrialization and urbanization in China, it will be necessary to push further the transfer of Chinese surplus farm labor from the agriculture to non-agriculture sector.

OBSERVATION AND ANALYSIS OF ZHEJIANG CASE

Zhejiang Province locates in the middle-eastern coastal area of China, covers about 100 thousand square kilometer land, consists of 20% arable land, 10% water, 70% hill and mountain, has a population of 44 million, and has become a relatively developed area since the reform of 1978. Both GDP on the whole and GDP per capita of Zhejiang in 1998 ranked the fourth among all Chinese provinces (including Shanghai and Beijing).

1. Review on the migration of surplus agricultural labor in Zhejiang

Roughly, the evolution of the Zhejiang rural labor structure could be divided into four stages as following.

(1) 1949 - 1978^①

Over 80% of the population lived in rural areas during this period due to the influence of the central planning system then. Even though the proportion of agricultural output in the GDP of Zhejiang decreased rapidly, from 74.5% in 1949 to 42.5% in 1978, the proportion of the farming population did not decrease simultaneously, but went up, from 85.2% to 87.9%. Not only does it mean that the evolution of the occupation structure lagged far behind that of the industrial structure, but also the speed of the transfer of surplus agricultural labor was lower than that of the growth of the farming population. It resulted in quite lower agricultural productivity and less surplus products, and much lower farm family income (only annually 165 yuan per per-

① The period is from the founding of the People's Republic of China to the beginning of its comprehensive reform in the economic system.

son in 1978), and rapid suction into the so-called "Malthus' trap". In 1978, 93% of the total population in Zhejiang relied on farming, while arable lands for them averaged just 0.74 mu (1 ha = 15 mu) per person. The surplus agricultural labor reached to around 5.30 million, which almost accounted for 41% of the whole rural labor force.

(2) 1979 – 1985

This period could be regarded as the initial stage of the Chinese economic reform that included implementation of the land contract based on farm family. The government's reform policy encouraged farmers moving outside the agricultural sector to develop non-agricultural industries, raised the governmental purchase price of grain, released the restriction on other food products price. The reform policy had incredible effects. The total output of agriculture in Zhejiang increased by 6.6% in average per year during this period, compared to the annual 4.5% in 1949 – 1978. The grain production in 1984 reached to 18172 million kg., increased by 10.5%, compared to that in 1978. The boom of agriculture not only provided abundant food products for the national economy, but also created the precondition for migration of surplus agricultural labor.

The rural population went up to 33.95 million in 1985 from the 33.22 million in 1978, and people engaged in farming reduced from 13.98 million to 12.62 million at the same time at the rate of 9.77%. The proportion of rural labor engaged in farming decreased from 95.45% to 67.7%. This means that 5.35 million (0.765 million by average year) surplus agricultural labor in Zhejiang migrated into non-agricultural sectors during 1978 to 1985, even though most of them were still living in the original area.

What absorbed most of the surplus labor from agriculture was the TVE, which took in 4.654 million migrants, accounting for 24.97% of total rural labor, by the end of 1985. Additionally, some of them migrated into cities to engage in business or to be employed by city firms, which not only created competition for employment in the city, but also mitigated the contradiction of the separation of the rural economic system from the city economic system.

The migration of huge surplus labor in agri-

culture spurred the development of Zhejiang's economy and the evolution of its economic structure. The Social Production Value (SPV), in terms of the rural range and the current price, went up to 44.41 billion yuan in 1985 from the 9.87 billion yuan in 1978. The change of the industrial structure was rapid, from 66.6, 28.3, 5.1 to 39.2, 54.6, 6.2, in terms of the agriculture, industry and service sectors respectively, which means that the proportion of agriculture dropped by 27.4 percentage points, while the annual net income for each farm family person rose to 548.6 yuan in 1985 from the 165 yuan in 1978, while the income from non-agricultural activities rose from 7% to 41%. This implied that the rapid increase of income of the farm family should be, to a great extent, attributed to the development of non-agricultural industries in the rural areas.

(3) 1986 – 1991

The fluctuation in surplus agricultural labor could be obviously observed during this period as the adoption of a tight economic policy started in 1988. It focused on the over-heated national economy, especially on the economic structure imbalance caused by the soaring growth of the manufacture sector and extremely slack infrastructure such as energy, transportation, communication.

At the end of 1990, the off farming labor in Zhejiang rural areas rose to 6.98 million, 1.335 million increase over that of 1985. However, by comparison with the previous 5 years (1980 – 1985), this increase of the migrated labor was just 41%. The proportion of employment in the TVE among the total rural labor force was 24.35%, slightly down compared to the 24.97% in 1985, but the absolute amount of employment in the TVE increased by 0.3 million at the same period. Migration outside the native county increased during this period, and rose to 1.888 million in 1990 from the 1.537 million in 1985. Migrants outside the province increased from 0.456 million to 0.67 million. It means that the increase of the latter accounted for 61% of the total increase of those moving outside the native county.

(4) 1992 – 1998

The national economy recovered during this period. A crucial turn appeared in 1992, characterized by the address of Deng Xiaoping, a se-

nior politician in China, during his visit to southern China. As for Zhejiang, changes can be explained with Table 1.

Table 1 Zhejiang rural economic structure and labor distribution^①

	Rural labor (million)	Farming labor (%)	Farming labor (million)	Staffs in the TVE (million)
1990	20.34	65.68	13.36	4.955
1998	20.96	52.60	11.02	7.557
Variation	0.62	-13.08	-2.34	2.602

^① Data in the table came from the Annual Zhejiang Statistics. The value of TVE is calculated by the fixed price of 1990. The proportion of TVE means the proportion of TVE in the provincial industry as a whole.

Table 1 shows that even though the total rural labor force continued to rise, the proportion of labor engaged in farming decreased, this index decreased by 13.08 percentage points, down 1.64 points annually. Farm laborers also, from 13.36 million in 1990 down to 11.02 million in 1998. Among them the number of cropping farmers decreased to 9.35 million from 10.41 million, i.e. a net decrease by 1.06 million, accounting for 45.3 % of the total decrease in farming labor during this period.

The TVE played an important role in absorbing almost all the migrated labor. The figures in Table 1 show that the number of agricultural laborers, who got jobs in the non-agricultural sectors, increased by 2.96 million, while TVE employees rose to 2.602 million during this period. This means that 87.8 percent of increased non-agricultural labor was absorbed by the TVE.

The process of urbanization, especially the development of small cities and towns, is mainly attributable to the boom of TVE and the transfer of surplus agricultural labor with relatively low efficiency. The number of towns that were approved increased to 998 in 1998, and was 6 times that in 1978. The GDP from those towns now has accounted for over 80% of the whole rural GDP in Zhejiang Province. Those towns gradually became the centers for population and pillars of the economy. The 100 strongest towns among them, with 11.7% of the provincial population, took in respectively by average 24 220 employees from outside the town and contributed to 31% of the total provincial GDP.

Farmer migration was fastest in 1993, when about 1.57 million farm laborers moved into non-agricultural sectors; about 25% of them moved outside the province. In fact, in the process of transfer of surplus farm labor, farmers participate in the redistribution of GNP, which enlarges the

sources of their income. The proportion of income from non-agricultural activities increased from 49.5% in 1990 to 66% in 1998. The annual net income per capita of Zhejiang rural residents ranked first among provinces in the recent years, from 1099 yuan in 1990 up to 3815 yuan in 1998.

2. Further analysis on the migration of surplus farm labor in Zhejiang

(1) Impact of the social and economic situation on the migration

It is obvious that there is close relation between external circumstances and migration of surplus farm labor. That is, the more stable and loose the social and the political situation gets, the more prosperous the economy must be; thus more surplus agricultural labor will move out and vice versa. A statistical correlative analysis indicated that the coefficient of both reached 0.964. That is why the migration of surplus farming labor was rapid in some years (1978 - 1987, 1992 - 1993), but quite slower during 1988 - 1991 (Table 2).

Table 2 Economic growth and migration speed(%/a)

Stages	1978 - 1987	1988 - 1991	1992 - 1993
GDP growth	14.1	6.77	20.5
Migration speed	17.3	0.02	10.1

(2) Moving without relinquishing the land

As we already mentioned in the first sector, the land for Chinese farmers is not only regarded as the main revenue source, but also as the basic safeguard for survival. In addition, as farmers' opportunity to keep the very low cost contracted land (actually, it is the use right of land), usually they do not intend to relinquish their contracted land, while they migrate into other sectors. Therefore, the phenomenon, i.e., part-time in farming and "leaving from agricultural

sector and without moving out of rural area", is quite common, which sometime caused the fluctuation of surplus farm labor migration, the rate of the return-back in the certain year can be used for explanation. It was 61.68% and 7.84% in 1989 and 1995.

(3) Amount, speed and distance of the migration

As a whole, the number of the migrated labor in Zhejiang Province increased gradually, but the speed of surplus farm labor migration was

a winding curve, from slowly at the beginning of the 1980's to rapidly in the middle of the 1980's, then slowly again in 1989 - 1991. The fastest migration was in 1992 - 1993. In recent years however, migration slowed down again as the economic growth slowed down. As to the distance of migration, short distance (migration to local area) still dominates, although long distance migration (into cities or other provinces) has become more and more popular recently (Table 3).

Table 3 Destination of the migrated Zhejiang farmers^①

	Within Province	To cities in Prov.	To local in Prov.	Out of Province	To eastern China	To central China	To northern China
1990	84.4%	19.9%	80.1%	15.6%	47.5%	33.3%	19.2%
1996	83.4%	48.2%	51.8%	16.6%	61.2%	27.0%	11.8%
Variation	-1.0%	28.3%	-28.3%	1.0%	13.7%	-6.3%	-7.4%

^①The meaning of the column 3 and 4 should be understood by further classification of column 2, while the implication of the columns 6,7 and 8 should be regarded as the further description of column 5.

(4) Status of the migrated farmer

The status of the migrated farmers has changed much since the 1990's, which can be described by their educational level. Table 4 shows that the educational level as a whole of migrated farmers have risen much, but that the percentage of those with vocational training had dropped slightly. In reality, however, the qualification of personnel in most TVEs is not satisfactory yet; the educated, particularly the number of those with higher education, is usually no more than 5% of the firm staff.

Table 4 Educational level of the migrated Zhejiang farmers

	Over higher school	Middle school level	Vocational training
1990	9.60%	51.00%	30.4%
1996	12.38%	65.52%	28.0%
Variation	2.78%	14.52%	-2.4%

(5) Professional distribution of the migrated farmers

As previously mentioned, the surplus farming labor modified the employment structure, the proportion of labor in agriculture fell, while the proportion of labor in the industry and service sectors rose. In Zhejiang Province, the labor proportion in these three sectors was 38:43:19 in 1979, and changed to 13:54:33 in 1998.

The proportion of new comer professionals employed in the industry or service sector, was respectively, 51.1:48.9 in 1987, 59:41 in 1993 and 47.6:52.4 in 1996. In the recent years, TVE's weak ability to absorb migrated farmers could be attributed to the slow growth of staff in the TVE, which was -1.16% in 1998, compared to 2.8% in 1995, 16% in 1994 and 17.4% in 1993. The weak TVE's ability to absorb surplus farm labor could be attributable to a slower TVE growth due to the central government's tightened policy, and to the fact that many TVE have become capital intensive, rather than labor intensive for the purpose of enhancing the ability to compete successfully in the market. A related research showed that the elasticity of employment for the Zhejiang TVE has been down to 0.10 since the 1990s, and was 1.57 in the middle of the 1980s. Moreover, the number of staff per 10000 yuan of fixed assets in Zhejiang TVE was 8.1 persons in 1985, which, however, declined to 1.96, 1.45, and 0.38 in 1992, 1993 and 1997 respectively.

(6) The lag of the process of urbanization

The heavy farming labor migration to non-agricultural sectors changed greatly the employment structure, so that 58.7% of the total labor force of Zhejiang worked in the non-agricultural sectors according to an estimate of 1998, which does not mean there is the same urbanization lev-

el. Actually, urbanization in Zhejiang lags the process in the employment structure and economic structure.

A recent survey showed that the proportion of the rural population, including many employed in non-agricultural sectors, is still about 65%, which means that the proportion of the citizen in the total population, a crucial index of urbanization level, is relatively lower than that of the non-agricultural labor. Furthermore, in terms of the economic structure, it seems improper as about 88% of total GDP are contributed by the non-agricultural sectors, especially industry. The figures are just like those of most developing countries, i. e., the process of urbanization lagged that of the farming labor, which lagged the evolution of the industrial structure.

CHALLENGES AND POLICIES RECOMMENDED

In short, there are serious challenges to further migration of the surplus farming labor, which we can be summarized as follows.

1. On the one hand, the migration will continue to slow down as mentioned in the above sector, on the other hand, however, there is still abundant surplus labor in the agriculture sector in view of the annual growth of the rural population, the decline of arable land, and the adoption of technology characterized by labor saving. Take Zhejiang as an example, the total population increase is about 0.25 million per year; the decrease of arable land per year used for other purposes being around 0.01 – 0.013 million hectares, infers that one third of the surplus farm labor is still in Zhejiang.

2. The scope and distance of farmers' migration may get larger, and not restricted to the local area only, therefore the phenomenon of the real migration (leaving agriculture, and living in the city) may become common and be recognized by the policy maker.

3. Many farm laborers in the less-developed area have moved into the developed eastern area for farming, which has created terrace migration, i. e., farmers in the developed area move out for business, farmers in the less-developed area move to the idled land to farm. Some of them can even get the use right of the land by a lease contract with the migrated farmer in the de-

veloped area, and become new contracted farmers. Most of them are actually employed on temporary or permanent basis by the farmer in the developed area. The situation might cause potential conflict between the new comer and the migrant farmer who just leased out his use right of the contracted land, but may return to farming land once his business gets worse.

4. The migrant laborers, who have jobs in the city, will continue to increase, but the job they usually find is what the citizens do not prefer. Even then, migrant job seekers pose a serious challenge to citizens because the heavy pressure of unemployment has already appeared in the city in recent years.

5. Some migrated farmers who have accumulated funds, now return to land again and invested and engaged in relatively large scale and market-oriented farming. It is believed that they might play a determinant role in the future of Chinese agriculture.

6. Laborers moving into the service sector are increasing in number. Laborers who work and live in the town or in the small city, have become common because most service oriented sectors, such as commerce, banking, entertainment, communications transportation, etc., thrive easily in the city. The service sector will be a most vital industry, providing employment and promoting urbanization in China.

7. The situation that a farmer re-leases his use right of land to the others, who prefer to enlarge the arable land, might get common, which leads to larger scale family farm and the need for further reform of the land institution in China.

Challenges seem inevitable; some recommendation policies and suggestions are presented below.

(1) Farmers with relatively small area land usually have little incentive to engage in agricultural (especially grain) production, because income from it is usually much lower than that from the non-agricultural sectors. When more and more surplus farming laborer begin to migrate, the flow of land property rights such as use right or contract right should be encouraged. Otherwise, the agricultural sector will wither.

(2) It is necessary to make great efforts to solve problems such as too scattered distribution of the rural industry (TVE) and the degradation of environment caused by serious pollution in the

rural area. Two approaches could be chosen. One is to speed up the development of medium and small size cities in the rural areas, thus, to create some new economic and social center; the other is to shut down some firms, which create serious pollution and regulate the layout of TVE.

(3) Since the infrastructure capacity and present big cities cannot cope with the cross-regional flow of the huge number of surplus farm laborers and provide employment for them, it is inevitable for them to find way out in the rural areas. The solution is to encourage the laborers, who intend to migrate to move to small cities and towns, which had been planned for priority in development.

(4) Do not only put emphasis on the development of industry, but also pay great attention to the service sectors with their huge employment potential, which of course, to great extent rely on the form, scope, and scale of the economy. City economy usually has such function as providing employment. It is also one of the reasons that the medium size and small city should be given priority in government plan for national development.

(5) The replacement of labor by capital should not be overlooked in view of the reality of the huge labor structure in China. More capital

intensive oriented technology should not be regarded as the optimal choice. When we consider the technological progress, particularly in the rural and agriculture sectors, it might be suitable to use the labor intensive technique or at least the neutral technique. The improvement of occupational skills for farmers and migrant labor is very important also, therefore, educational opportunities and specific training should be provided frequently for farmers.

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