# Rural Labor Force Emigration on the Impact and Effect of Macro-Economy in China

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China has a large amount of labor force emigration engaged in non-agricultural activities from the rural areas. In 2005, the total amount of labor force that emigrant from the rural areas and engaged in non-agricultural activities was around 130 million, accounting for 26% of total rural employment. The large scale of rural labor force migration plays a tremendous role of macro-economic effectiveness on driving the agricultural and rural development, breaking the dual-economic structure long lasting in urban and rural China. The rural labor force migration has an in-depth effect on agricultural production, and the labor force emigration results in the improvement of agricultural mechanization, the efficient employment of agricultural new technology, the improvement of human capital, the promotion of evolution of land institution and agricultural production system. The most direct effect of rural labor force emigration results in the increase of farmer's income. It is evident that the rural labor force emigration has a positive correlation with the household poverty alleviation, and it has been a key measure for anti-poverty activities by exporting rural labor force from inside the poverty areas. Due to the rural labor force migration, the factors of production have been flowed and made combination between regions, and the evolution of social management system as well as production system has been implemented in a large extent. As a consequence, the transition from a traditional rural economic society to a modern society which is oriented by urbanization and industrialization is accelerated, and the development of macro-economy has been pushed forward.

## 1. The large scale of labor force emigration from rural areas

In 2005, there are about 130 million rural labor emigrants from rural areas, which accounted for 26 percent of total rural employment. There are a couple of major characteristics. First, looking at the employment locations, the emigrant labor force is concentrated in the eastern china which is the economically developed area of china, resulting in an increasing labor force in large and medium cities at the prefecture levels. In 2005, the emigrant labor force accounted for 65.1 percent out of those labor forces who worked at the large and medium cities at the prefecture levels. Second, looking at the industrial sectors, in 2005, most emigrant labor force was engaged in the manufacturing and construction industries, which accounted for 55% emigrant labor force out of total.

## 2. The economic impact and effect of rural labor flow

The immense rural labor flow of china plays very positive impacts on the propelling



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agricultural and rural development, alleviating the poverty, breaking the dual economic structure long lasting in urban and rural areas.

### 2.1 rural labor emigration and poverty alleviation

**2.1.1 The migration of rural labor force accelerates the poverty alleviation.** Based on normative and positive economic research, it is evident that there is a reverse U shape relationship between the likelihood of rural labor force emigration and the household incomes. This demonstrates the positive correlation between the labor force emigration and the income growth, or equivalently, there exists a negative correlation between rural labor force emigration and household poverty status before the time point when china rural household incomes achieve the level of a medium income country (Yaohui Zhao,2005, Laiyun Sheng,2007). This may explain why some local regions take it as an important measure to alleviate the poverty by exporting rural labors outside. By utilizing the 2004 household survey data, Yaohui Zhao showed the evidence that there exists an obvious negative correlation between labor force emigration and poverty alleviation, the poverty people are relatively lowly involved in local non-agricultural employment while they are relatively highly involved in inter-regional labor force migration. Results are shown as in table 1 and table 2.

**Table 1 poverty incidence （%）for family size in rural china**

| Classes | Population proportion | Poverty incidence by official poverty line | Poverty incidence by lower poverty line |
|---|---|---|---|
| Non-migration family | 41.7 | 5.1 | 10.7 |
| Migration family | 30.9 | 2.9 | 7.4 |

Sources：2005 rural household survey data,
extracted from Yaohui Zhao's poverty report for the World Bank.

**Table 2 population employment or migration rate （%）for regions**

| Activities | Poverty | Coastal | Northeast | Middle | Southwest | Northwest | Non -poverty |
|---|---|---|---|---|---|---|---|
| Agri. | 84.27 | 74.38 | 92.81 | 83.89 | 84.68 | 87.47 | 64.38 |
| Local agri. | 5.16 | 17.66 | 4.57 | 4.24 | 2.12 | 3.08 | 17.09 |
| Migration | 10.58 | 7.95 | 2.63 | 11.87 | 13.2 | 9.45 | 18.53 |

Sources：2005 rural household survey data,
extracted from Yaohui Zhao's poverty report for the World Bank.

Table 1 shows that the poverty incidence of the household with emigrated family members is 2.2 percent lower compared with the household without emigrated family members, similarly the low income head count index is 3.3 percent lower. Table 2 shows that there is an 8 percent higher of migration rate for non-poverty people compared with poverty



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people. Meanwhile, we find that there exists a higher probability of emigration in southwestern， northwestern and middle regions, and hence rural labor force is trend to immigrate to eastern region.

**2.1.2 Reasons for the poverty alleviation due to labor force emigration.** First, emigrant labors acquire more opportunities for employment. In poverty areas, the non-agricultural sectors are lagged behind other sectors, so that it results in less employment opportunities. In order to get rid of the poverty, many rural labor force move away from their hometown to relatively developed eastern areas. As a consequence, the poverty people are decreased in a large scale in rural areas, so the poverty incidence is alleviated greatly. Second, some returning farm labors make investments or startup enterprises in their hometown by using their accumulated capital and human resources, so that the local economic development as well as the pace of poverty alleviation is promoted. Third, the rural emigrant labors directly stimulate the change of farmer's income structure and income growth in rural areas. At the beginning of open-door policy in China, agriculture was the most engaged activities by farmers, hence the incomes from the agriculture were major incomes, accounting for 70 percent or more of the total income of all farmer's income. Along with the development of market-oriented economy as well as the increasing emigrant labors, the structure of farmer's income changes dramatically. In the 1990s, the agricultural income mostly came from the household operations, but in 2003, the income contributed by household operations had declined to 60 percent out of total income. Since 1997, the income from the industrial sectors for those emigrant farm labors has kept a two digit growth rate, hence it has become the major growth factors for farmer's income that comes from the earned salaries from industrial work. Compared with the demand for industrial goods, there is a small elasticity for agricultural produce, which means the room for price rise of agricultural produce is limited. We conclude that the farmer's household operational income can not support the farmer's income growth in a sustainable way. So the Chinese farmer's income growth can only rely on the rural labor emigration and urbanization by reducing the rural population. Fourth, the labor emigration promotes the human capital. When the rural labors enter the urban areas, they still keep a close ties with their relatives in rural areas. Once rural labors return to their hometowns from time to time, they bring many new life concepts, new information on economic development, new experience from work and life outside to the rural normal life which improve the overall quality of rural labors. When some emigrant labors accumulate certain amount of capital and management experience, know-how techniques and accurate market information, they may return back to their hometowns to startup their own businesses such as private enterprises in secondary and tertiary industries. This not only creates new opportunities for labor market but also promotes the entire quality of local labor force. As a sequence of rural labor force emigration, the contradiction of more labors and less arable lands is relaxed. This also makes it possible to operate agriculture in an appropriate scale, and it becomes certainty to greatly improve the human resources engaged in agriculture due to the science and technology advancement which results from the improvement of organic structure of capital.

**2.2 Labor migration and agricultural development**



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Labor migration has multi-facet, positive and significant influences on agricultural development and agricultural production.

**2.2.1 Labor migration promotes mechanization of agriculture.** China has large population but limited amount of cultivated land. Plots of land are scattered with very small sizes. For thousands of years, farmers have been kept working manually and the productivity is low. Along with the acceleration of labor emigration and increasing number of floating population, the mechanization level of China's agriculture has been improved rapidly. Total power of agricultural machinery had increased by 5 percent annually during 1990 and 2005. Of total sown area of grain in 2005, there were 60 percent mechanically ploughed, 4 percent mechanically sown, 30 percent mechanically harvested, and 25 percent mechanically irrigated. The presence of this promising situation is caused by increasing opportunity cost of agricultural labors. As a consequence, using more agricultural machinery instead of labor input to increase labor emigration is a both economically effectiveness and rational choice for farmers. Additionally, farmers accumulate certain amount of capital through labor emigration which makes purchasing and using agricultural machinery possible.

**2.2.2 Labor migration facilitates the application of new agricultural technology.** Farmers are enthusiastic about using high quality seeds, adopting farming technologies which can help to cut labor input, and the use of chemical fertilizer and pesticide to increase output. The quantity of chemical fertilizer used for farming per mu in 2005 doubled that of 1990. The rate of high quality seeds is exceeded 30 percent. The views and experience of emigrant labors have influenced their own and their families' preference of applying new technology. Additionally, income remitted or brought back by emigrant labors enables households to increase the input of agricultural production.

**2.2.3 Labor migration contributes to the land reform and the reform of the mode of agricultural production.** Under household responsibility system in China, land operation is on a household basis. Although this type of land institution has motivated enthusiasm of individual households, it has the characteristics of small-scale production. Labor migration accelerates land transfer and enables some farmers to benefit from scale operation. Along with the increasing number of emigrant labors and longer period of working outside hometown, some farmers will sublet their land to the others who will stay locally. It is estimated that about 15 percent of farmers are involved in land-sublease (Jin Songqing, 2005). The system of land transfer is under construction driven by labor emigration in China. Furthermore, labor emigration accelerates the reform of small-scale production. Labor emigration is an open-minded behavior itself. Emigrant labors bring back capital and other advanced factors of production into family especially modern commercial capital and concepts. These can help to change the objective and mode of small-scale operation and to break the boundary and isolation of small producers, and therefore to enable dispersed rural households to achieve a dynamic combination of production factors in line with the needs of specialization and socialization.

**2.3 Labor migration and urban development**



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The driven force of urban development comes not only from the optimization of production factors inside of the cities, but also from factors outside of the cities such as urbanization brought about by labor emigration and a series of chain reactions thereafter. Current ratio of urbanization in China is only about 40 percent which is far below the world average. There is still a big room for development. Labor emigration is an important power for urban development and economic growth in the place of labor importation. Firstly, it helps to reduce the cost of urban development. The flowing in of the large number of cheap rural labors has satisfied the demand of cities for labors at lower end. This is favorable for rational allocation and effective utilization of labor resource, and for the reduction of the average age and supply-demand cost of urban population. If there was no labor emigration, the normal operation of many sectors in the cities, such as city cleaning, repair and delivery work which are recognized as hard or dangerous jobs, would have been affected. Secondly, labor emigration promotes urban reform. It has caused the development of labor market and has helped to establish a new market-based allocation system of labor resource, thus has largely facilitated the reform of labor and wage institutions in urban areas. This is the beginning of a series of other reforms in the areas of social security system, family planning, household registration system, housing institution, etc. Thirdly, labor emigration helps to broaden the space for industry development in urban area. The flowing in of the large number of rural labors to the cities forms a huge consumer group which can boom the prosperity of urban commercial sector, tourism, and real estate thus contributes to the economic development of urban area. The purchasing power brought by migration of rural labors to urban areas has largely promoted the development of production, especially the development of the tertiary industry, in the place of labor importation. In recent years, both big cities and small ones have seen rapid development. An important reason is the integration of low-priced land preoccupied by the cities and the flowing in of cheap labors from rural areas.

Regarding negative influences of labor emigration on urban development, the main debate is that it may place high pressure on urban infrastructure like transportation system, and may be associated with other issues such as crime of migrant labors. However, some scholars hold contrary opinions. They deem that the lack of urban infrastructure is due to the lag of infrastructure and public service behind economic growth, or because that the old management system and institutions can no longer meet the needs of labor emigration and employment. Only through institutional innovation and reform, could these problems be finally resolved.

**3. Conclusions**

In summary, labor emigration in china has caused massive mobility and combination of factors of production. It has also given rise to the great institutional reform of social management and the change of the mode of production. It has promoted the economic growth of China and facilitated the transition of traditional rural economy to a modern society which is symbolized by urbanization and industrialization. Before all surplus labors being emigrated from rural areas, labor emigration will not hinder, but instead facilitate, the development of agriculture. The reduction of absolute number of farmers is favorable to the increase of agricultural productivity, the increase of household income and the alleviation of



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rural poverty, as well as facilitating land transfer and reform of traditional agriculture. Those hard-working but under-paid migrant labors devote their youth and wisdom to support the development of cities and manufacturing industry. They contribute to the sustainable growth of macro economy. Rural-urban labor mobility also facilitates the mobility and integration of rural-urban capital and promotes the integration of labor market as well as the transition of dual rural-urban system.



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