Evaluating the Implementation of Employment Generating Policies and Strategies in China

Minquan Liu

Peking University

minquanliu@pku.edu.cn

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STRATEGIES FOR ERADICATING POVERTY TO ACHIEVE

SUSTAINABLE DEVELOPMENT FOR ALL

SEGMENT TWO:

Evaluating the Implementation of the Second UN Decade

for the Eradication of Poverty (2008-2017)

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1. Introduction

The Second UN Decade for the Eradication of Poverty targeted, among other things, employment generation in a country. The rationale is that if the poor can find adequate remunerative employment, then that will give them an income which can help lift them out of poverty. Nearly a decade has passed, and the strategy appears to have had varying levels of success. Much, it appears, would depend on a country's institutions and the complementary polices it adopts to generate employment.

This paper provides a brief review of some such policies adopted in China, and how they interacted with other wider institutions in the country to promote employment. Specifically, we review China's efforts to promote diversifications of the rural economy, and how these interacted with its rural, land-related institutions, to maximize employment opportunities in the rural areas. Even though extensive rural-urban migration has been taking place in the country, such that the rural share of employment has been consistently declining in the last few decades, and was surpassed for the first time by the urban share in 2014, for over three and a half decades the rural sector was the main source of employment in the country. We discuss how this was made possible, what policies and institutions helped to ensure this, and what might have happened without these policies and institutions.

When discussing employment generation, much of the literature has emphasized the importance of small and medium-sized enterprises (SMEs), and more recently also micro enterprises. There are certainly good reasons for doing so. According to a recent ADB (2015) study, the SME share of employment was as high as 97% in Indonesia in 2013, 90% in South Korea in 2012, 83% in Laos in 2013, 81% in Thailand in 2013, etc. In China, its share was 64.7% in 2011. Note that different countries often applied, in line with their own need of policy making, different qualifications for SMEs, so that the above percentages are not necessarily comparable. Nevertheless, the figures do lend support to a widely-held view that, in general, SMEs are by far the most important contributor to employment in a country.
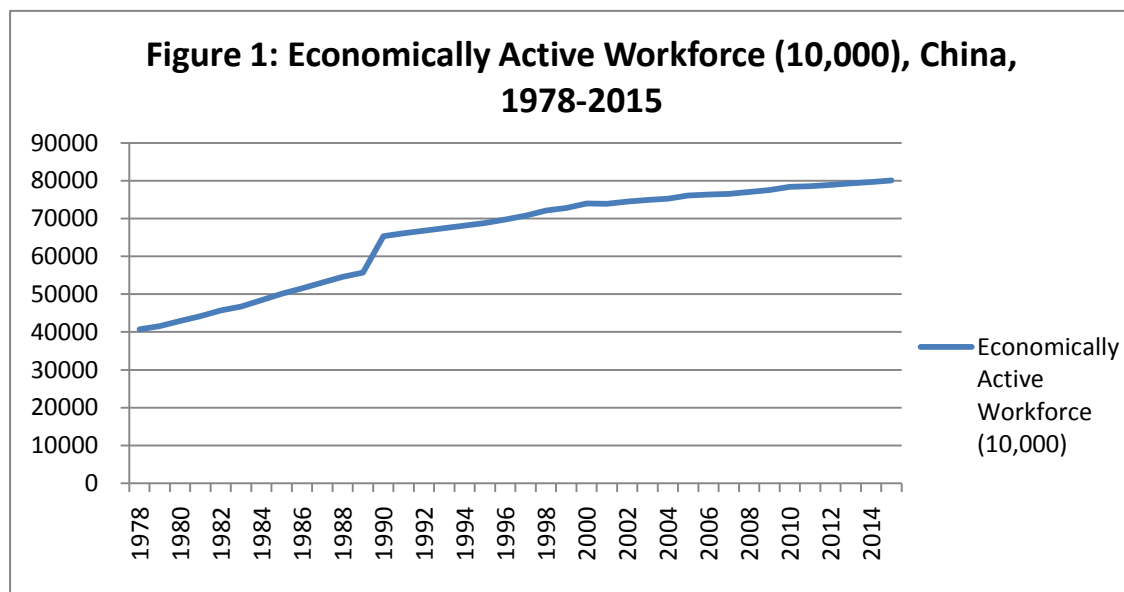
Depending on the stage of economic development a country has reached (in terms of Lewis notion of labor transfer), however, a significant share of these SMEs may, in fact, be located and primarily operate in rural areas. This appears to have been the case in China, and may also be true in many other countries still in the early phases of their economic development. Thus the focus in this paper on employment provided by the rural sector need not conflict with the widely-agreed, strong employment-generating role of SMEs. There can be extensive overlapping between the two.

Below Section 2 gives a short account of the scale and structure of rural employment in China, against the background of China's overall employment situation. Section 3 then provides a model of rural sector employment under the prevailing conditions of

small farms, as they apply to China. In Section 4, we briefly review policies that would seem to have influenced rural sector employment in the country.

2. China's Employment Situation and Rural Employment

Figure 1 presents the changing size of China's working population, as measured by the number of economically active people. The size has continually been increasing over the reporting period, except briefly for the year 2001 when it actually fell by 0.15%. China's total working population is expected eventually to decline at some point in time in the future, but that has not happened yet.[1]

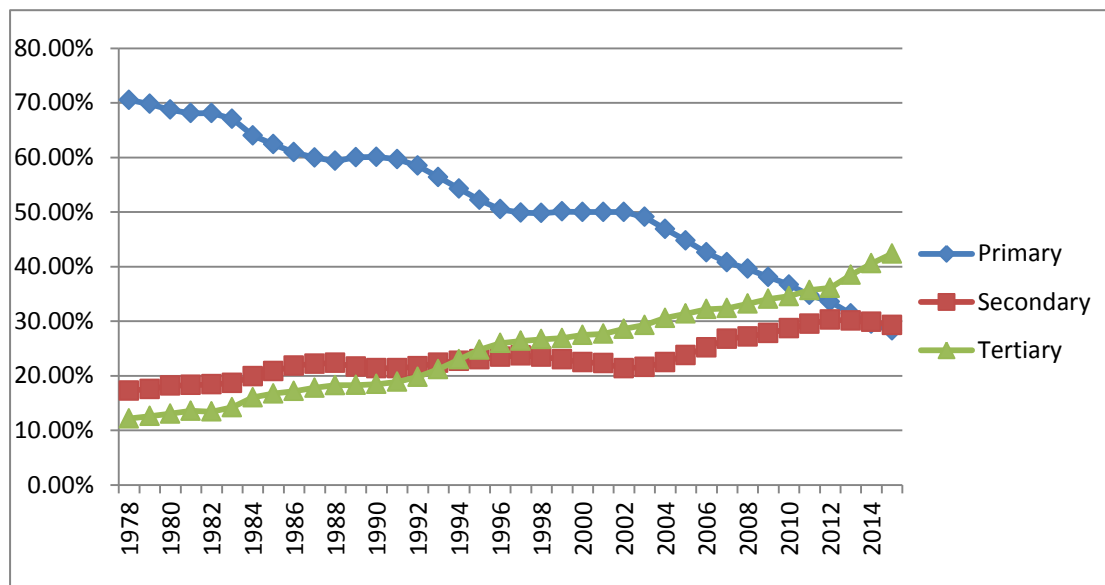Figure 1: Economically Active Workforce (10,000), China, 1978-2015

Source: *China Statistical Yearbook*, various years.

The changing employment shares of the three broad sectors of the economy, primary, secondary and tertiary, are given in Figure 2. As can be seen, the share of the primary sector, principally agriculture, consistently declined over the reporting period. There were two brief periods when this share appeared to have stabilized, at 60% in the late 1980s, and at 50% in the late 1990s and early 2000s. But over the entire three and a half decades of the reporting period, the share generally declined, to 28.3% in 2015. In contrast, the shares of the secondary and tertiary sectors generally increased. The increase for the secondary sector was rather mild. Roughly, most of the increase took place in the first decade of 1978-1988, and later in the second half of the 2000s and the first two years of the 2010s. In between, the employment share of the secondary sector hovered around 22-23%. In most recent years, it has again stabilized around the new high of 30%. It was the tertiary sector that has witnessed the most spectacular increase in the employment share, rising consistently from just
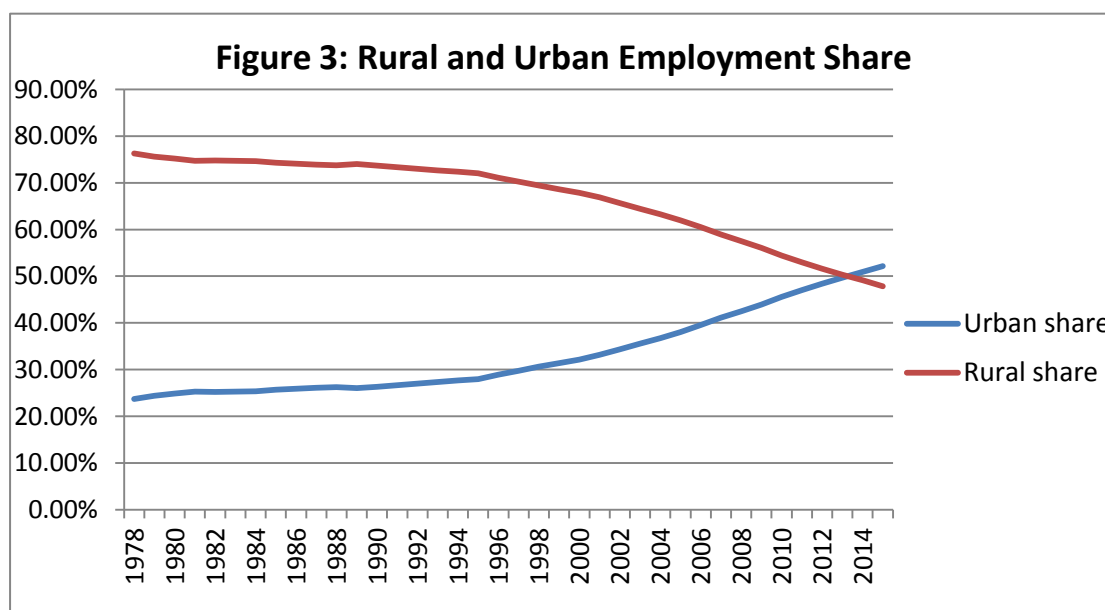
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[1] According to population forecasts, the size of China's economic actively workforce is going to peak in 2018, according to a talk given buy Cai Fang, Director of the Population and Labor Research Institute, CASS, at 2017 China Development Forum.

over 12% in 1978 to over 42% in 2015, a 30 percentage point jump over just over three and a half decades.

Figure 2: Employment Share by Sector, China, 1978-2015

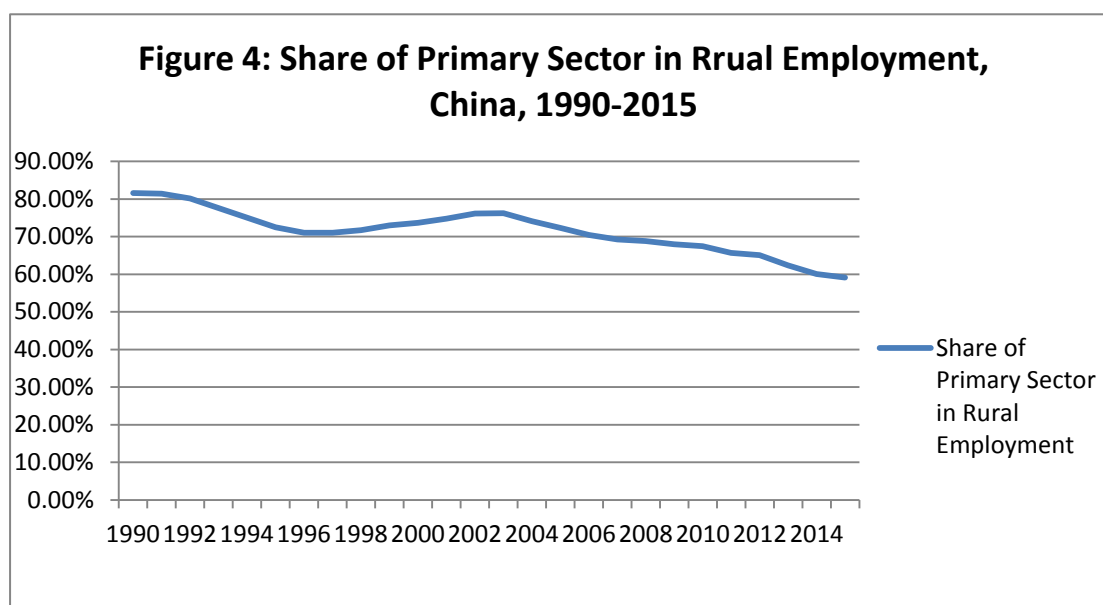Source: *China Statistical Yearbook*, various years.

Source: *China Rural Statistical Yearbook*, various years.

Figure 3 presents urban and rural employment shares. As shown, the urban share has been consistently rising, from just over 23% in 1978 to 52.17% in 2015, surpassing the rural share in 2014 and signifying a rapid process of urbanization. However, even though its employment share has been rapidly falling over the report period, the role of the rural sector as a major source of employment for the economy

over the period is unmistakable.

It has been widely argued that China's *hukou* system might have acted to extensively hold back the rural workforce from migrating to cities. Under this system, a person is distinguished by his/her rural or urban residence status for a variety of benefits ranging from employment and education opportunities to a whole host of social protections, including health care. However, to attribute the employment retaining power of China's rural sector entirely to the *hukou* system would be a mistake. There are important mechanisms and factors within China's rural sector that continuously work to generate employment for its workforce. Many rural workers were held back from migrating to cities not necessarily because of their rural *hukou* status, but because of the employment and income opportunities that this sector offers to them, as we will discuss in more detail later.

Within the rural sector, the economy has also been extensively diversified, so that agriculture now no longer dominates this sector whether in output or employment. Figure 4 reports on the share of the rural workforce employed in the primary sector, as opposed to secondary and tertiary sectors.[2] As can be shown, the share had a bumpy ride in the decade 1996-2006, but slid down overall, falling by 20 percentage points over the two and a half decades of the reporting period. Note that the primary sector consisted of not only agriculture, but also husbandry, fishery and forestry. Nevertheless, agriculture has been the dominant sub-sector.

Figure 4: Share of Primary Sector in Rrual Employment, China, 1990-2015

Source: *China Rural Statistical Yearbook*, various years.

The rapid diversification of the rural sector economy can also be gauged by the

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[2] A farmer may engage in a multitude of activities respectively belonging to primary, secondary and tertiary sectors, as classified here. In these cases, s/he is categorized into to the sector that provides him/her with the main source of employment.

changing share of output by the three sectors. Using statistics reported in *China Statistical Yearbooks* of the relevant years, Fu and Zhu (2008) calculated the share of the per capita income of rural residents as accounted for by these sectors for the decade 1992-2002, and Table 1 reproduces their results. As can be seen, the share of the primary sector fell sharply from 69.36% in 1992 to 47.17% in 2002, an over 20 percentage point drop in just a decade. The shares of secondary and tertiary sectors rose, respectively, from 13.32% and 12.47% in 1992 to just over 23% in both cases, a rise by over 10 percentage points in both cases. We would expect these trends to have continued in subsequent years but, unfortunately, the same *Yearbook* stopped releasing the information which would have enabled calculations of these shares for later years.

Table 1: Share of Per Capita Income by Sector, Rural China, 1992-2002
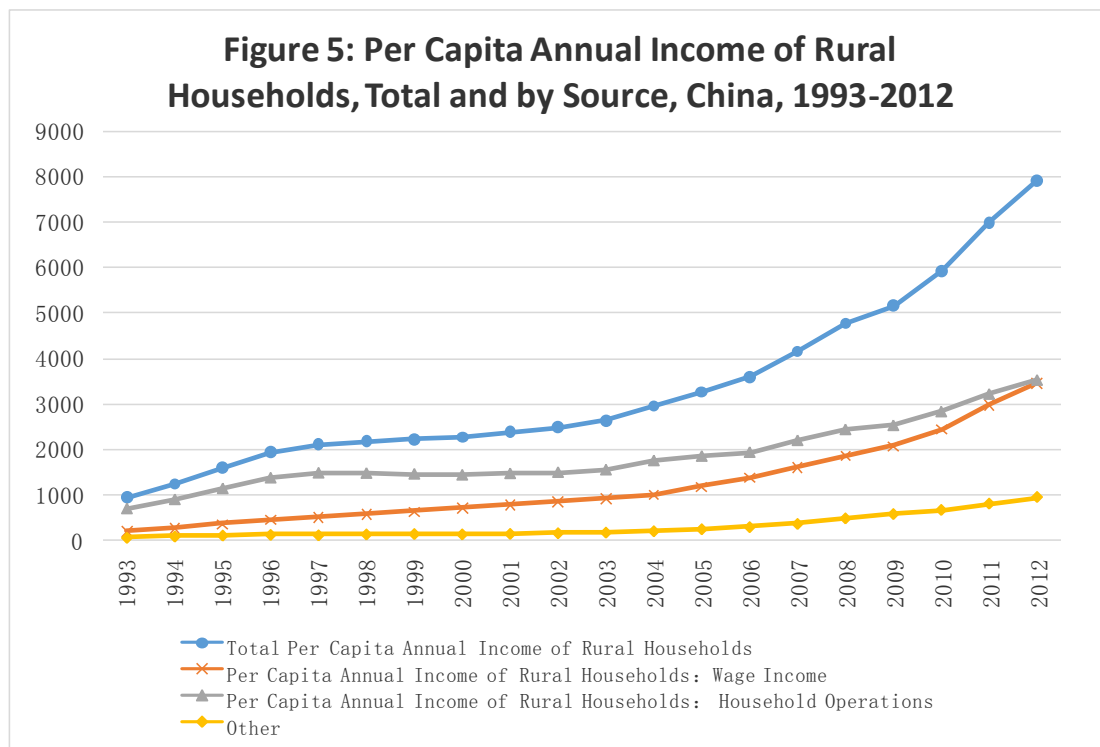
	Income (yuan)	Primary (%)	Secondary (%)	Tertiary (%)	Other (%)
1992	783.99	69.36	13.32	12.47	4.85
1993	921.62	63.97	16.22	14.54	5.28
1994	1220.98	63.96	17.21	12.59	6.24
1995	1577.74	63.16	18.21	12.41	6.23
1996	1926.07	61.92	19.33	12.89	5.86
1997	2090.13	60.65	20.95	13.48	4.92
1998	2161.98	57.24	23.08	14.03	5.66
1999	2210.34	53.39	25.53	15.12	5.96
2000	2253.42	49.94	21.70	22.87	5.50
2001	2366.40	49.24	22.51	22.56	5.70
2002	2475.63	47.17	23.71	23.11	6.01

Source: *China Statistical Yearbook*, various years.

An important source of rural income is wage income, as opposed to income from household operations. Given the nature of small family farms in China, wage incomes are unlikely to have come from agriculture, or indeed other sub-sectors of the primary sector. They are most likely to have been associated with secondary and tertiary operations managed by businesses, mostly rural SMEs. Figure 5 provides a breakdown of total per capita income of rural households into wage incomes, household operation incomes, and other (mostly transfer incomes). The sharp rising trend of wage incomes is unmistakable. By 2012, they had almost reached a par with household operation incomes.

Such is the dynamic character and employment generating power of China's rural sector, in spite of the fact that this sector is dominated by small farms, which many have argued are operationally non-viable, inefficient, and should be given over to large scale farming. Below, we present a model of a typical Chinese farmer's choice in respect pursuing farming, some rural non farming activity, and leaving the rural sector altogether to seek urban employment. We will see that there are good reasons for this sector to be dynamic and employment generating, in spite of the

limitations of small farms.

Figure 5: Per Capita Annual Income of Rural Households, Total and by Source, China, 1993-2012

Source: *China Statistical Yearbook*, various years.

3. A Model of Farmers' Time Allocation and Migration Decisions

Existing models of migration mostly focus on a person's choice between rural farming and employment in an urban centre. Given the particular rural tenurial institution of small family farms in China, it would appear that the choice is a foregone conclusion. As other non-farming sectors grow offering increasingly better income opportunities, there is no way that farming can compete with the lures offered by these expanding sectors. Farmers would, therefore, abandon farming. The only reason they have stayed behind in their village is because the *hukou* system tied them down there.[3]

The typical size of a household/family farm in China is, indeed, extremely small--on average only one acre per farm. Such limited land area per household inevitably means limited incomes from farming, in spite of the possible use of advanced modern inputs (advanced seed strains, etc.) and modern cultivation methods. To satisfy the rising income aspirations of a farm family, and for it to continue to stay in the rural sector, alternative rural-based income opportunities (or rural non-farming activities) must be sought.

The difference between engaging in a rural-based non-farming activity and seeking urban employment is that, by and large, while a farmer can concomitantly engage in

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[3] From this point onwards, I shall refer to "farming" rather than the narrow notion of "agriculture", as the model developed below should apply to any rural worker whether engaged in agriculture, husbandry, fishery or forestry.

both the former and farming, she has to abandon farming altogether if she pursues the latter. Possibilities might exist for a farmer both to engage in urban employment and in farming at the same time (e.g. in some close outskirts of a city). However, in general, because of the long geographical distance that usually exists between the point of a person's urban job and her rural farm, these possibilities cannot but be very rare.

For analytical purposes, we shall assume that taking up an urban job necessarily rules out the possibility of one then also being able to engage in farming, and being able to engage in any other rural non-farming activity for that matter. For a farmer to stay with the rural and, indeed, agricultural, sector, the combined income opportunities offered by both farming and rural non-farming activities must offer a maximum welfare/utility greater than if she chose urban employment.

Note that we have just spoken of a farmer instead of a farm family, and have assumed the farmer to be the unit of decision-making. Although it may not typically be possible for a single person to concomitantly pursue farming and urban employment, it may well be possible for a farm family to do so, that is, to have different members engaged in farming and in urban employment.

When the decision-making unit is a farm family, the impossibility of concomitant engagement in both farming and urban work need not then be a strong feature. On the other hand, although cases of "split family" have been widely reported, they are unlikely to be any long-term arrangement for the family involved. Eventually, either the entire family is to move to some city, or the migrant family member returns to home village. Thus while making family the decision-making unit clearly complicates the picture, the basic idea that a single decision-making unit cannot concomitantly engage in both farming (or some other rural non-farming activity) and urban employment should still hold.

For convenience we shall first assume the decision-making unit in question to be a single farmer, and then relax this assumption to allow a farm family as the decision making unit, to capture aspects that cannot be properly handled when the decision-making unit is a single farmer.
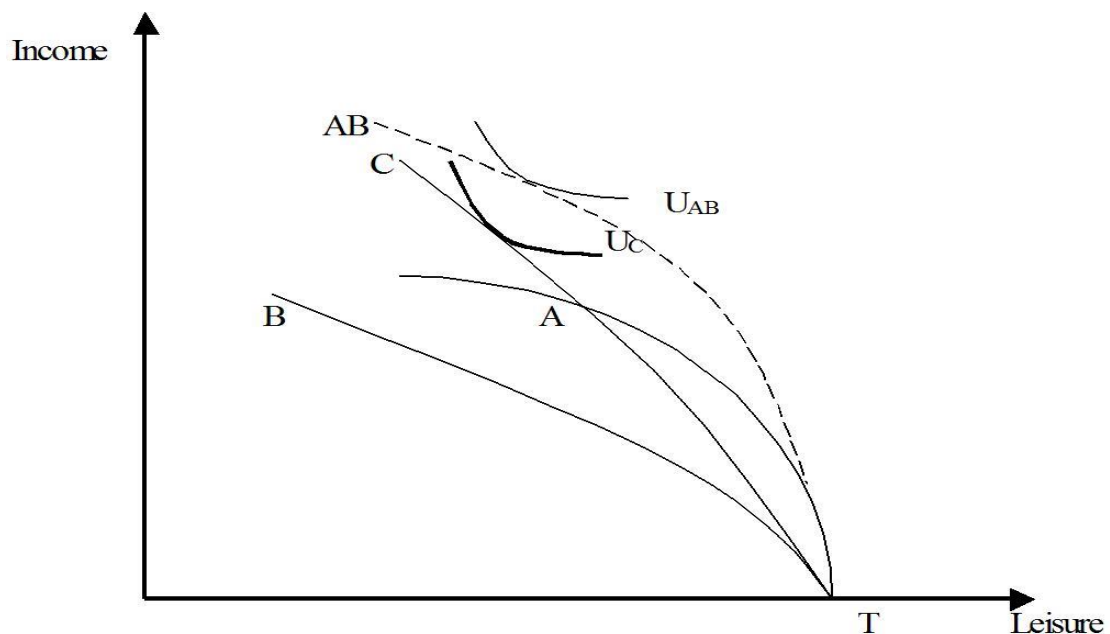

The model

Let there be three economic activities: rural farming (A), rural non-farming (B), and urban employment (C). As noted, taking up urban job C would mean that the person has to leave farming altogether (completely abandoning farming). On the other hand, he can concomitantly engage in activities A and B. In the absence of B, a farmer's choice is between A and C. In this case, suppose that the farmer will choose C--the maximum welfare offered by A cannot possibly compete with that offered by C.

Now add activity B. On its own, B cannot compete with C either, in terms of the maximum welfare it offers to the farmer. But the farmer can concomitantly engage in this and A. The combined income opportunities offered by A and B together can, however, give the farmer an even higher maximum welfare than is possible with just C. In such a case, he will choose A together with B, instead of C.

Figure 6 provides a graphical illustration. The four schedules A, B, C and AB are each "maximum income schedules" associated with activity A, B, C, and the combined activities A and B, respectively. They are best considered being derived as follows. Let the farmer in question maximize her income with respect to each of these activities and the combined activities A and B, respectively, subject to a constraint on her total labour time supply, while allowing her to use whatever other non-labour resources at her command (if there exist markets for land lease and credit, he may even lease in additional land and/or borrow capital from these markets).

Figure 6: A Model of Farmer's Time Allocation

Consider farming activity A, for example. Given the assumed total labour time the farmer is able to spend on farming (he has no other activity to expend his labour on), he then decides how best to use his labour (how best to combine his labour with other resources), and other resources. The solution to the problem should define a maximum level of income for the assumed total labour supply. Now let the constraint on the total labour supply change. The maximum achievable level of income will then change accordingly. Schedule A traces out this relationship. Schedules B and C can be considered to be derived in the same way.

In deriving schedules A, B and C, we did not assume a given wage rate in any of the

cases. While an externally given wage rate may not be an unrealistic case in respect of activity C, the same cannot be said of A and B. Under the condition of small family farms, it is hard to expect that there can exist a competitive labour market to set a wage for A, at which one can supply labour freely. Even non-farming activities need not imply that a farmer would be able to do so. For one thing, many rural non-farming activities may be household based and may not hire outside workers. Indeed, even rural industries may not entirely base their hire decisions on non-personal factors such as the wage. For generality, we assume all three activities not to be subject to a given ruling wage rate.

The AB schedule is derived in an analogous way, except that a farmer now solves the problem of maximizing income subject to a joint constraint on the total available labour time for A and B (the farmer can concomitantly engage in both). The AB schedule traces out the positive relationship between the assumed total amount of labour time for A and B together, and the maximum income from both activities. Note that, as drawn in Figure 6, the AB curve first follows schedule A, and then deviates to be above it, indicating that income opportunity B is being utilized.

There can be many possible juxtapositions of the four schedules. In combination with the farmer's tastes, they should give rise to a wide range of possible cases. In Figure 6, we have indicated only one particular possibility—a likely one—where without B to complement A, or vice versa, the farmer chooses C, implying migrating to cities and leaving farming altogether. However, with both A and B, their combined income opportunities enable her to reach a level of welfare at U_{AB}, higher than that offered by C, and he therefore chooses A and B.

A sufficient condition for a farmer to stay with farming is for the combined income schedule AB to lie everywhere above C. However, even if this is not satisfied, so long as AB lies above C in the relevant range, still she can choose A and B over C.

While the introduction of activity B can induce a farmer to stay with farming rather than leaving it, nevertheless B does compete with A for labour and other resources. In equilibrium, marginal incomes of labour, and marginal returns to each other production factor, should be equal across these two activities.

An extension

The model above assumes that the person will be able to choose freely the amount of time she likes to allocate to activity C or between A and B. This may be a realistic assumption in respect of A and B. Certainly, since A involves a farmer farming her own plots, she has all the freedom to decide how much time to spend on it. If B is an entirely family-based activity, the same applies. If it is not—for example, if it is a factory or office-based activity with a fixed work schedule and a fixed level of total time (fixed number of days and hours) required of her, and no more, in a given time
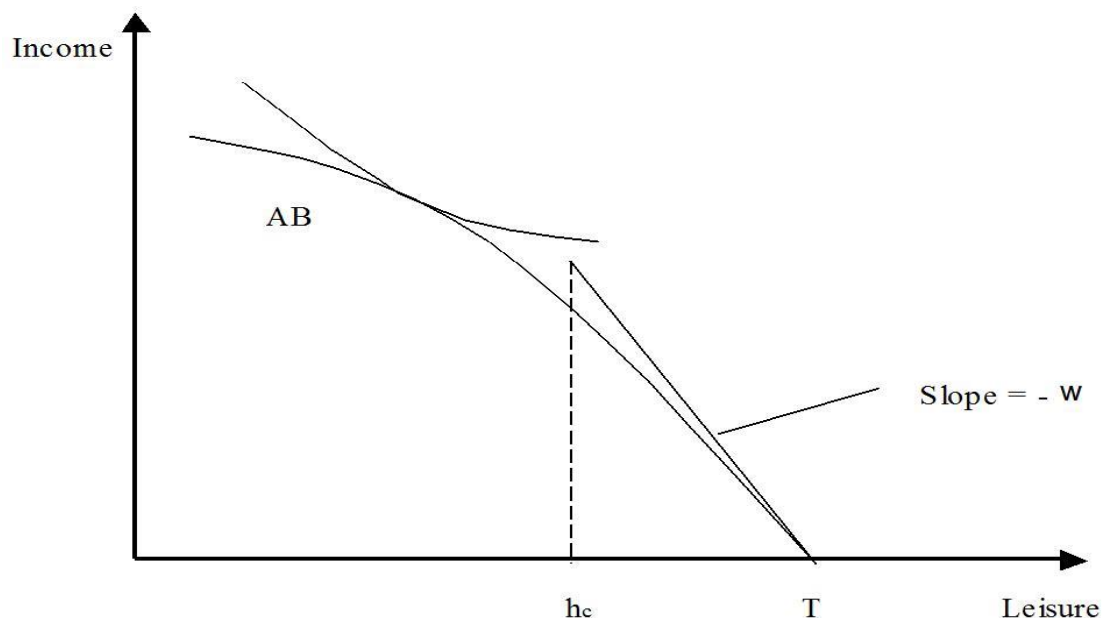
period—then the above analysis needs to be modified. Specifically, there can then exist a ceiling on the level of time the person can allocate to B.

Although some rural non-farming activities are office or factory based with a fixed work schedule, others are typically not. For simplicity, we assume B to be entirely family based and is not subjected to a formal work schedule.

The same will not be an appropriate assumption for C. While urban employment may not in every case subject a person to a fixed work schedule (like self-employment), most urban jobs (and certainly those in the formal sector) do subject a person to a fixed work schedule and fixed total time to be supplied in a given time period. Most urban jobs also pay a person at a fixed wage rate with or without overtime pay.

Figure 7 takes account of these features of urban employment. A ceiling h_c is imposed on C, and up to it the person is paid at a constant wage w. The wage rate is set to be sufficiently high so that schedule C lies above AB. In spite of this, the person chooses A and B, which give her a still higher level of welfare. Needless to say, this is entirely due to the presence of the ceiling h_c. However, the case does show that in considering a person's migration decision, looking at the rates of pay offered by the alternative employments is insufficient. Even if the wage rate of urban employment is higher, because of its implicit ceiling on the hours worked characteristic of urban employment, a farmer may nevertheless not choose it.

Figure 7: Farmer's Time Allocation, Special Case

Farming and non-farming activities: synergistic, competitive or both?

The foregoing makes it clear that, alone, neither the farming activity A nor the

non-farming activity B may be in a position to compete with urban employment C. However, when combined, A and B may compare favorably to C. While A and B may compete between themselves for a farmer's labour and other resources, in the cases we have portrayed in Figures 6-7, they are mutually supportive, and are indeed dependent on each other for their very survival. Without B, there can be no A, and vice versa. The analysis also suggests that in cases where the combined activities A and B cannot compete with C, by improving returns to labour in either sector (A or B), both sectors can benefit, to the extent that it could otherwise be abandoned by the farmer.

But it will also be helpful to look at the *competitive* relationship between A and B. Even though these two activities are not so geographically separate that a farmer must choose *either* A *or* B, the introduction of B does have implications for A in terms of the level of (1) labour time and (2) other resources to be optimally expended on A. We shall not be concerned with the level of other resources but of laour to be expended on A.[4]

In fact, the introduction of the non-farming activity B must also imply that, other things being equal, a farmer will spend less time on farming. Unless the marginal returns to labour expended on B is everywhere lower than on farming, under usual assumptions regarding tastes, a farmer's total labour time allocation to farming will unambiguously fall, and, other things being equal, this will also mean a shrinking of the farming activity (both in terms of labour time allocated to it and in terms of output).
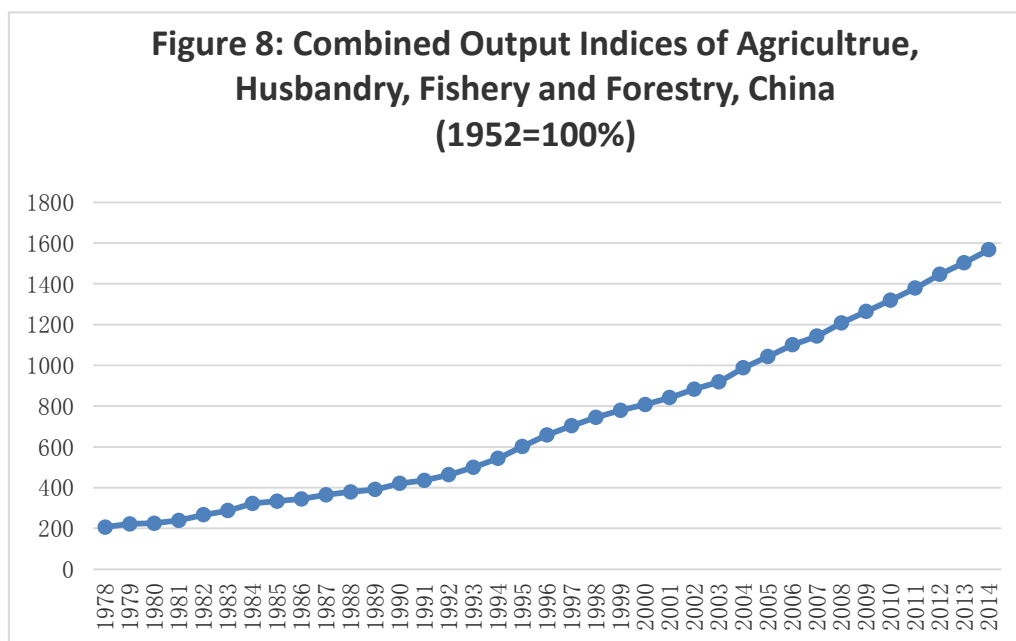
The case where marginal returns to labour expended on B is everywhere lower than on farming implies, however, that the combined income schedule AB in Figure 6 is effectively that of A. Under the analysis given before, and if the case is as shown in Figure 6, then the farmer will leave agriculture altogether. So B with sufficiently high marginal returns to labour is required if the farmer is to be prevented from abandoning farming, and is also the more interesting case to be considered. That being so, the total labour time allocated to farming by a farmer must fall, and the farming sector will shrink, as a result of the introduction of B. This situation will not change unless there is an improvement in the farming technology such that output still increases even though labour allocated to it falls.

When improvement in the farming technology is considered, it is possible to think of a case where a farmer will not leave farming even if no non-farming activity is introduced, so long as returns to farming are sufficiently raised (the income schedule

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[4] Liu (2002) also considers the implications of the introduction of a non-farming activity for farming in terms of possible conflicts in "patterns of hours" of the two activities. By the "pattern of hours" of an activity is meant a particular time sequence of the tasks required by the activity, and the hours needed to perform each, often giving rise to timing-specific requirements as to when (e.g. at which precise moment in time) each hour needs to be spent on which task. The introduction of an extra activity B can result in conflicts between the existing activity--farming--and the new activity in terms of such patterns of hours.

A pivots sufficiently upwards through T). Under the typical conditions of small family farms in China (with, as has been noted, very limited land holding and other resources), however, this is an unlikely case. Therefore, it will be concluded that there will be a need for non-farming activities to complement farming, even with possible improvements in farming technology, if a farmer is not to abandon farming.

On the other hand, improvements in farming technology, even though when alone not sufficient to induce a farmer to stay with farming, can help raise the attraction of farming and help farming to survive. At the same time, improvements in the farming technology may help the farming sector possibly to grow even though farmers reduce their labour time allocation (and most likely the allocation of other resources) to the sector. Available statistics indicate that China's farming sector did indeed grow over the period, even though labour inputs to this sector sharply fell. Figure 8 presents the growth indices for agriculture, husbandry, fishery and forestry combined. As can be seen, the combined size of these four sectors consistently grew over the reporting period.

Figure 8: Combined Output Indices of Agricultrue, Husbandry, Fishery and Forestry, China (1952=100%)

Source: *China Statistical Yearbook*, various years.

Household as decision making unit

In the discussion above, we assumed each farmer to be the relevant decision-making unit. This is adequate for considering the impact of the introduction of a non-farming activity on labour allocation to farming. It is, however, not adequate for other purposes. In China, as elsewhere in East Asia (e.g. Taiwan), along with the rapid diversification of the rural economy, there emerges clear patterns of household division of labour between farming and non-farming activities. To account for such household divisions of labour, a richer analytical framework is required.

To be brief, let there be a farm household whose members have different job-specific skills for farming and non-farming activities. For simplicity, suppose that the household has only two members who have identical preferences but different abilities or skills for carrying out activities A and B. The family maximizes the sum of the two members' utilities. There is no need to explicitly model this problem but a necessary condition is the maximization of the combined incomes for any given expenditure of labour from each member. This is akin to the Ricardian trade problem, for which we know that there will be specialization, in the present case specialization between the two household members in performing the two activities, with one member undertaking only one activity and the other member possibly undertaking both activities.

As noted previously, with a farm family or household as the decision-making unit, it is also possible to envisage geographically split families with one or more members of the family specializing in undertaking urban jobs, and others staying behind to continue to engage in farming or undertake other rural-based non-farming activities. However, as also pointed out previously, such split families can operate in this manner only on short-term rather than long-term basis.

4. Underpinning Institutions and Policies

In spite of the rapid structural transformation of the economy, powered by rapid industrialization and accompanied by rapid urbanization, China's rural sector has been thriving through diversification. No longer is this sector dominated by agriculture and farming, but it has witnessed the rapid rise and expansion of other non-farming subsectors, including rural SMEs and industries. Underpinning the success of this rural development strategy against the larger historical background of small farms and intensive cultivation are the following institutions, policies and programs.

Rural tenurial arrangement

The agricultural reform of the late 1970s entitled each farmer to a parcel of land. What is more, because this land is nominally publically owned, it cannot be marketed and sold, or purchased by another. In other words, the system also guaranteed each farmer a piece of land for her protection. This prevented forced possessions of others' land or distressed sales of one's own.[5] It also helped to anchor farmers to their villages.

It might be argued, as many have, that the *hukou* system did the job, rather than the

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[5] In more recent years, such cases have, in fact, been often reported, usually taking the form of some real estate developers working with some corrupt local officials to deprive local farmers of their land, with little compensation for their loss of land.

particular rural tenurial institution that China happened to have. In response, let us for one moment imagine that China's farmers are to lose their land entitlements. Leaving aside the likely vehement protests from the farmers against such a move, and assuming that they have resigned themselves to this situation, could we really expect all those who have so far chosen to stay in the sector to continue to do so, in spite of the *hukou* system? If no large sections of them leave the sector immediately, then how about over time?

The *hukou* system might have unwittingly acted to hold back farmers in their villages, but the fact that they each have a piece of land to work on, and a location to operate from (it they also choose to diversify), must also have had an effect, possibly much greater than the impact of the *hukou* system. If a farmer has lost his land in her village, there is probably no way that any system like the *hukou* system can hold her back in her village. Globally, loss of land is clearly one of the most important reasons why many villagers leave their places of origin and migrate away, often to some kinds of urban slum.

Diversification of the rural economy

But while the role of protection offered by one's entitled land is important, so is a vibrant rural economy that offers farmers opportunities of income and employment. Under conditions of small family farms, the only way to promote a vibrant rural economy is to diversify, that is, for farmers to move into others economic activities in addition to farming. China has had a long history of making rural economic diversification one of its policy goals, from the early but failed practice of the Great Leap Forward, to the May 7th Directive from Mao during the heydays of the Cultural Revolution, and to the host of policies and programs after economic reform. Indeed, rural industries first sprang in many parts of rural China as early as the second half of the 1960s, and by the late 1970s they became a significant economic sector in those areas.

Subsequent, post-1978 policies took the form of assisting farmers with particular funds and know-hows (e.g. through technical extension) to overcome key bottlenecks that were considered as preventing farmers from successfully diversifying, that is, to improve conditions for farmers to diversify, rather than to promote particular products or subsectors. Needless to say, the choice of particular products and subsectors for formers to diversify into would crucially depend on local conditions, or local skills, resources and markets, that is, local comparative advantages.

One important bottleneck was the rural infrastructure, including rural road systems and transport networks for inputs and products to enter into and exit from the area, and farmland infrastructure critical to agricultural productivity and mechanization. Without effective and economical mechanization of farming tasks or substitution of

capital for labor in general, a farmer might not be able to successfully diversify into other activities without seriously affecting his farming income, a point explored at some depth in Liu (2002).

One particular ambitious program China adopted to address and improve rural infrastructure in both these respects, and to promote rural economic diversification in general is the Comprehensive Agricultural Development Program. Adopted in the mid-1980s, the program is still ongoing. The scale of the program, in terms of the townships and villages covered across the country, has been vast, and so have been the funds put into it from both the central and local governments. Indeed, for a time, its funding accounted for over 7.6% of the total government funding for agriculture and the rural sector. Liu (1997) discusses in detail the aims and objectives of the program and the rationale behind, major components of the program, the source and scale of funding, and how the program got started and how it was managed. Wu et al. (2005) provides estimates of the impact of the program on China's agricultural productivity.

References:

ADB (2015), *Integrating SMEs into Global Value Chains: Challenges and Policy Actions in Asia.* ADB, Manila, Philippines.

Fu, Y. and L. Zhu (2008), Sideline businesses for farm households: An economic analysis, *Bulletin of Economic and Financial Institute of Guizhou*, 132: 68-72.

Liu, M., T.G. Liu and Z. Wu (1997), *Farmland Consolidation in Mainland China and Taiwan: Impact and Implementation*, report submitted ESRMU, DFID, UK.

Liu, M. (2002), Sustained agricultural growth and economic structural change: Some reflections on farmland consolidation programmes in Taiwan and Mainland China, *China Economic Quarterly*, 1 (2): 455-484, in Chinese.

Wu, Z., M. Liu and J. Davis (2005) Land consolidation and productivity in Chinese household crop production, *Chinese Economic Review*, 2005, 16 (1): 28-49.