The Role of Township and Village Enterprises Play on Income Inequality in

Rural China

Research

Introduction

Transition economy is an important research object in economic sociology. What's more interesting and significant in this topic are the economic reforms carried out or being carried out in the developing countries, which involve widely and profoundly with the fundamental issues in society, such as social inequality and modernization. China, which has a population of more than 1.3 billion, also, which has experienced rapid and enormous economic development, is facing the intense social inequality between its urban and rural sectors, as well as between its coastal and inland regions. Even within the rural sector itself, income stratification has been forming along with the Chinese economic reforms. Township and Village Enterprises (TVEs) are playing crucial roles in the income inequality in rural China due to their special "position" within the rural labor market, and between the agricultural work and employment in cities. This research proposal requests one year of funding to support the collection and analysis of data that will illuminate the effects TVEs have upon the income inequality in rural China, especially during the Chinese reform-eras.

The following narrative of the proposal has three sections. The first section introduces TVEs' influence and significance in a context of Chinese social transition and relevant studies on Chinese economic reforms and inequality. The second section will provide the models to predict the income inequality between three groups within the rural residents: those who remain in agricultural work, those who

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work in TVEs, and those who work in cities; the models will lead to three parts of analyses: which group earn the most? Whether the inequality changes through time (before vs. after reforms)? Whether the inequality differentiates regionally? The third section will provide the space for some sociological reflexion on two aspects: compared to the living costs of those rural residents, will the conclusion on the between-group inequality still hold? To what extent are those TVEs marketized?

TVEs' Influence and Significance in a Historical and Academic Context

China has experienced high-speed growth already for about three decades, to which China's success in its economic reforms is widely known. From the agrarian reform in 1978, to the market reform and openness reform in early 1980s, to the industrial reform of state-owned[1] enterprises (SOE) in 1994, China has been situated in an intense economic transition from the Maoist era. Between 1978 and 1993, the share of SOE employment was down from 75% to less than 60% in the urban areas and from 60% to about 30% with the inclusion of non-farm employment in the rural areas. During the same period, the state share of industrial output declined from 78% to 43% (Cao, Qian and Weingast, 1999).

Where should we put the TVEs within this context of economic transition and reforms? The Chinese government defines TVEs as those run by Chinese peasants (Li and Fang, 1997). More specifically, TVEs are referring to those enterprises "either collectively established by or initially based on and closely associated with rural communities such as townships and villages."(Perotti, Sun and Zou, 1998) In this sense, they are typically collectively owned by the "citizens in rural communities such as townships and villages" (Perotti, Sun and Zou, 1998). So

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[1] In China, there are two separate worlds in the state sector: one of small and medium SOEs under the supervision of local governments, and another of large SOEs under the central government (Cao, Qian and Weingast, 1999).

although they are also public enterprises; they are conceptually different from SOEs.

From both the above description of the reform process in China, and the definition of TVEs, we could notice that so far, there is actually not any "carefully designed policy or plan" (Perotti, Sun and Zou, 1998) exclusively for TVEs. 1978 reform was for agricultural privatization, and 1980 reform was to open up to the outside world. Although one of the most profound characteristics of China's 1994 reform is the privatization of small state-owned enterprises at the county[2] level (Cao, Qian and Weingast, 1999), but they are still referring to different entities.

However, we can hardly place TVEs out of the historical background of China's rapid transition and profound reforms, which will also be quite dangerous. The reasons are as follows:

Firstly, they are playing a crucial role in the rural economic growth and employment, which have long been China's most anxious concerns. From 1981-1992, they grew at 31.3% a year, and in recent years, the growth rate was often over 40% a year. From 1990-1994, the annual revenue of these enterprises increased from 958.1 billion Yuan to 4358.8 billion Yuan, and the number of their employees increased from 92.6 million to 120 million, including the number of workers in such supporting areas as transportation and marketing, TVEs now offer over 150 million nonagricultural jobs for the country. At the end of 1994, the industrial output of these township enterprises reached 3233.6 billion Yuan, accounting for 47% of the country's industrial output. In China's domestic markets, these TVEs have obtained the leading position in the production of almost all labor-intensive products (Li and Fang, 1997). In this sense, they are one of the causes of China's intense economic transition, or even, one aspects of economic transition itself.

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[2] County level is one level above township and one level below city. (Cao, Qian and Weingast, 1999)

Secondly, although none of the reforms is directly designed for TVEs, they have intense and also far-reaching influence on the development of TVEs. 1) The 1978 agricultural reform enabled China's rural economy to experience "a rapid transition from a redistributive/collective economy to a marketlike economy", one of whose most vivid features is the emergence of "a vast 'second' economy", expressed most commonly in the form of "peasant household farm and firm"(Nee, 1989). So TVEs, to a great extent, were the byproducts of the agricultural reform. 2) TVEs are also playing important roles in China's foreign trade (Li and Fang, 1997; Perotti, Sun and Zou, 1998). So since the main aim of the 1980 reform was to open up Chinese market, it is not hard to see the relationship between the reform and the development of TVEs. 3) Although most TVEs are owned by the rural community, since they are also very important for the local government's taxation and local economy in total, they may get access to the resources with the help of the local government and thus some informal interests relationship get formed between TVEs and the local government (Nee, 1989, 1991, 1996, 1999; Perotti, Sun and Zou, 1998). This enabled TVEs to expand, but with their increasing maturity, "the objectives of TVG (local government in most cases) officials are coming increasingly into conflict with those of TVE managers": "TVGs have assigned priority to raising employment, local prosperity and financial revenue. This could hinder the stable, long-term development of TVEs"; bureaucratization and corruption among TVG officials and TVE managers are also growing, "the problem of who monitors the monitors becomes increasingly serious" (Perotti, Sun and Zou, 1998). From the above perspective, TVGs were facing almost the same situation as those small county-level SOEs; the structural equivalence of them will make the TVEs sensitively conscious of their problems especially in face of the 1994 reform and thus tend to carry out

similar actions – reform.

What's even more important is TVEs' strong ability to absorb rural labor surplus without much need for state investment – "a serious problem confronting the Chinese government at all levels" (Perotti, Sun and Zou, 1998). This enables TVEs to dominate an interesting and significant position on the rural employment continuum, which mainly spreads within three outlets: work in cities, work in TVEs, and remain in agricultural work. TVEs partly fill the blank of a real rural labor market (Hannum and Xie, 1994) and also play a crucial part in the income inequality in rural China. 1) Compared to those working in cities, though the absolute income may be lower, however, those TVE workers enjoy a variety of extra "benefits" – "job opportunities and security, pension funds and communal welfare programmes in housing, health care, irrigation, road construction, and other infrastructure" (Perotti, Sun and Zou, 1998); to the contrast for the migrant workers (those who work in cities), due to the special social stratification patterns and relevant policies in China (such as household residence registration system), they can hardly enjoy any likely kind of "benefits". They are peasants, though have no or few land and earn their living mainly on work in the city; they are working and living in cities year-round, however own nearly none of the basic rights enjoyed by common urban residents. Also, the opportunity costs of unemployment for TVE workers are much lower than those migrant workers since "the worst thing for them is to return to farming" (Perotti, Sun and Zou, 1998). They are as well enjoying a more stable life as they often work in places closer to home than migrant workers. 2) Compared to those remain in agricultural work, the relative disadvantaged position of rural sector in China set up the social context for the income inequality between these two groups. As I will hypothesize later, the inequality between the three groups will both change

with the different phases of reforms, and the socio-economic situations of different regions.

Put in the academic context of inequality studies in reform-era, there are studies focusing on the inequality between rural-urban sectors (Hannum and Xie, 1994), different regions (Xie and Hannum, 1996), or distributors and direct producers (Nee, 1991); or discussing the within-rural inequality from an institutional perspective (Nee, 1999), but there are not many studies on the within-rural inequality at an individual level. Also, corresponding to Guthrie's critiques (1997) of applying institutional level data to draw individual level conclusions, my research will only try to draw individual level, at the most, group level conclusions based on individual level data.

Three Models of the Income Inequality in Rural China

The following three models will try to depict the income inequality patterns and mechanisms in rural China from cross-sectional, longitudinal and spatial levels to achieve a panoramic picture of the income stratification, mobility and regional distribution. Data in this section will mainly depend on the collection of secondhand database and supplementary qualitative data from field work.

Model 1 and Its Analysis

I modify Xie and Hannum's (1996) application of Mincer's (1974) human capital model for contemporary China into the form of

$$T = \log Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_2^2 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_1 X_6 + \varepsilon \quad (1)$$

Where Y is incomes, X_1 years of schooling, X_2 years of working experience, X_4 and X_5 are two dummy variables denoting different groups ($X_4 = X_5 = 0$,

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working in TVEs; X_4=1, X_5=0, working in cities; X_4=0, X_5=1, remaining in agricultural work), and X_6 a dummy variable denoting gender (X_6=1, female). All β's are unknown parameters, and ε is the residual unexplained by the model. I apply the model to both male and female workers and allow for differences between the genders in the intercept as well as in the return to years of schooling. Equation (1) deviates from Xie and Hannum's model in two ways. 1) I exclude party membership, since their study has already proved this factor not to have significant effect; 2) I include two dummy variables denoting different groups to estimate the effects of different employment status on the income and to prove the following hypothesis:

Hypothesis 1: Between the three groups, those rural residents work in cities (Group 1) earn the most, those work in TVEs (Group 2) earn the second most while those remain in agricultural work (Group 3) earn the least. (β_4>0, β_5<0)

Data: I will need a very recent year data (after 2000) including rural residents' information on income, schooling, work experience, occupation and gender. Since a recent data will represent the lately and correspondingly more real inequality pattern, which may tend to be stable after many years from the most recent large-scale reform in 1994.

Model 2 and Its Analysis

The second model will try to estimate the effect reforms have on the income inequality, and the increasing income advantage TVEs have through the process:

$$T = \log Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_2^2 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_1 X_6$$

$$+ \beta_{1978-1994} X_{1978-1994} + \beta_{1994-} X_{1994-}$$

$$+ \beta_8 X_{1978+1994} X_4 + \beta_9 X_{1978-1994} X_5 + \beta_{10} X_{1994-} X_4 + \beta_{11} X_{1994-} X_5 + \varepsilon \quad (2)$$

I divide the time dimension into three periods 1949-1978, 1978-1994, 1994- by including two dummy variables ($X_{1978-1994} = X_{1994-} = 0$, 1949-1978; $X_{1978-1994} = 1$, $X_{1994-} = 0$, 1978-1994; $X_{1978-1994} = 0$, $X_{1994-} = 1$, 1994-) and their respective interaction terms with X_4 and X_5 to estimate the reform effect on the income inequality both for the absolute quantity and relative speed, denoted respectively by the change in intercepts and slopes.

Hypothesis 2: Among the three groups, the income inequality between Group 1 and Group 2 will decrease with an increasing speed with the Chinese economic reforms; the income inequality between Group 2 and Group 3 will increase with an increasing speed with the Chinese economic reforms.

$(\beta_4 > \beta_4 + \beta_{1978-1994} > \beta_4 + \beta_{1978-1994} + \beta_{1994-}$;

$|\beta_5| < |\beta_5 + \beta_{1978-1994}| < |\beta_5 + \beta_{1978-1994} + \beta_{1994-}|$;

$|\beta_4| < |\beta_4 + \beta_8| < |\beta_4 + \beta_8 + \beta_{10}|$;

$|\beta_5| < |\beta_5 + \beta_9| < |\beta_5 + \beta_9 + \beta_{11}|$.)

Data: I will try to select a data for the three periods 1949-1978, 1978-1994, after 1994 (I may try to collect data for each year, and calculate the average for use) to estimate the reform effect on the income inequality.

Model 3 and Its Analysis

Since China's regional developmental plans are to a great extent determined by the government's deliberate choice (Hannum and Xie, 1994), the regional income inequality in the rural China can well represent the characteristics and heterogeneity of China's economic transition. So I add the regional factors into the model:

$$T = \log Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_2^2 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_1 X_6$$

$$+\beta_{Middle}X_{Middle}+\beta_{Eastern}X_{Eastern}+\varepsilon \quad (3)$$

I include two dummy variables ($X_{Middle}=X_{Eastern}=0$, Western; $X_{Middle}=1$, $X_{Eastern}=0$, Middle; $X_{Middle}=0$, $X_{Eastern}=0$, Eastern) based on equation (1) to denote the regional differences in income inequality[3].

Hypothesis 3: Regionally, the more developed the regional economy, the smaller difference in income between Group 1 and Group 2, and the larger difference in income between Group 2 and Group 3. ($\beta_{Eastern}>\beta_{Middle}>0$)

Data: I will try to select a data for the three main socio-economic regions in China – Eastern, Middle and Western (I may try to collect data for each provinces and municipal cities in every regions, and calculate the average for use) – to estimate the regional effects on the income inequality.

Sociological Reflexion on Rural Income Inequality and Marketization of TVEs

Reflexion 1 Will the conclusion on the inequality still hold considering costs?

The above discussions of income inequality are based on the rural residents' earnings without taking into account the costs of the three groups, which may lead the conclusions to be biased. However, when rural residents consider taking a job, financial, emotional and social costs may all be thought about, the latter two among which can hardly be measured effectively and accurately. So some in-depth interviews with the rural residents within the three groups will be an important and necessary supplement and reflexion of the empirical investigations above.

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[3] In the 4th Assembly of China's 6th National People's Congress in 1986, a regional division based on the regional socio-economic status was announced. Eastern region includes 11 provinces or municipal cities: Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan; Middle region includes 10 provinces or municipal cities: Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, Hunan, Guangxi; Western region includes 9 provinces or municipal cities: Sichuan, Guizhou, Yunnan, Tibet, Shannxi, Gansu, Qinghai, Ningxia, Xinjiang.

Reflexion 2 To what extent are those TVEs marketized?

As lots of researchers (Nee, 1989, 1991, 1996, 1999; Cao, Qian and Weinast, 1999; Perotti, Sun and Zou, 1998) have investigated, even after years of influence by reforms, TVEs are actually remaining in a "quasi-marketization" (Nee, 1989) state which combines both hierarchy and market power. This is said to be "a hybrid property form in which the redistributive institution, not only remains intact, but also has successfully adapted to the economic reform." (Nee, 1989) Market power, market incentive, and market opportunity theses are all probing into the variant characteristics of the different joint forms of redistributive sectors and marketlike exchanges (Nee, 1989). Because whether the TVEs are marketized to a large extent will influence the answers to the question of "which kind of power is really taking effect" and more fundamentally, "what is the real cause of the high-speed growth in TVEs", and also due to the fact that this kind of data can hardly been obtained by structured survey, some field work in the typical Chinese TVEs and in-depth interviews with their managers and relevant local officials are crucial supplement part for the research.

References

Cao. Y. Z, Y. Y. Qian and B. R. Weingast (1999). "From Federalism, Chinese Style, to Privatization, Chinese Style." *The Economomics of Transtion*. 7: 103-131.

Guthrie, D (1997). "Between Markets and Politics: Organizational Responses to Reform in China." *The American Journal of Sociology*. 102: 1258-1304.

Hannum, E and Y. Xie (1994). "Trends in Educational Gender Inequality in China: 1949-1985." *Social Stratification and Mobility*. 13: 73-98.

Li, J and Y. Q. Fang (1997). "The Inter-Organizational Learning Process of China's Township Enterprises." China's Ministry of Agriculture, working paper.

Nee, V (1989). "A Theory of Market Transition: From Redistribution to Markets in State Socialism." *American Sociological Review*. 54: 663-681.

Nee, V (1991). "Social Inequalities in Reforming State Socialism: Between Redistribution and Markets in China." *American Sociological Review*. 56: 267-282.

Nee, V (1996). "The Emergence of a Market Society: Changing Mechanisms of Stratification in China." *The American Journal of Sociology*. 101: 908-949.

Nee, V and Y. Cao (1999). "Path Dependent Societal Transformation: Stratification in Hybrid Mixed Economies." *Theory and Society*. 28: 799-834.

Perotti. E. C, L. Sun and L. Zou (1998). "State-Owned versus Township and Village Enterprises in China." World Institute for Development Economics Research, working paper.

Xie, Y and E. Hannum (1996). "Reginal Variation in Earnings Inequality in Reform-Era Urban China." *The American Journal of Sociology*. 101: 950-992.

Data Collected
ICPSR 7251 China Study, 1964
ICPSR 9836 Chinese Household Income Project, 1988
ICPSR 2571 China Housing Survey, 1993
ICPSR 3012 Chinese Household Income Project, 1995