

Rural Industrialization in China: Its Effect on the Interregional Imbalances and the Consequences of Privatization

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The degree of spatial disparity in per capita income in rural China is surprising given the county's strong ideological commitment to equality and its powerful redistributive systems. Central to this issue is the development of township and village enterprises (TVEs) because their presence in rural areas is closely associated with the economic welfare of people residing in rural communities. Thus, analyzing the forces that give rise to economic imbalances is nearly equivalent to identifying why TVEs have developed in some regions and not in others.

Another thing that we should pay attention to with regard to rural industrialization in China is the fact that since the mid-1990s, TVEs have been privatized in the economic circumstances where market liberalization was accelerated. A series of preceding studies comes to the conclusion that a concurrence of TVE growth and the stagnation of state-owned enterprises is due to their divergence of property rights. What matters most in this context, however, is not to know how enterprise performance varies depending on their ownership structure, but to understand how it changes as a result of privatization. Needless to say, it is another story whether TVEs' productive efficiency improves in the wake of the ownership reform.

The conclusions can be summarized as follows: The spatial disparities are attributed to a variety of factors, including a) the initial impact of agro-climatic and locational conditions on agricultural growth, b) the less efficient use of TVE resources in poor areas, c) the decentralized fiscal system that requires local governments to generate most of their own fiscal revenue, and d) externalities associated with agglomeration economies. In short, the socialist regime of self-reliance that still lingers in China's rural society traps less advanced areas in poverty.

With respect to privatization, this study

draws the following conclusions. The production function analysis indicates that ownership reform is accompanied by an increase in production efficiency (see Fig. 1). It should be noted that such a gain was not achieved through the change in incentive structure inside TVEs alone. Our empirical analysis reveals that enterprises that are more foreign-market oriented record higher productivity, suggesting that market competition constitutes another ingredient behind the efficiency gain. Besides, the tax-fiscal reform in China enacted in 1994 played an important role of complementing TVE privatization institutionally by means of proletarianizing local governments. Namely, the reform gave local governments a pretext to sell out collective assets, with the result that TVE budgets became tighter, and a commitment to good performance was enhanced. It seems reasonable to conclude that these internal and external factors interacted together to bear fruit of productivity increase.

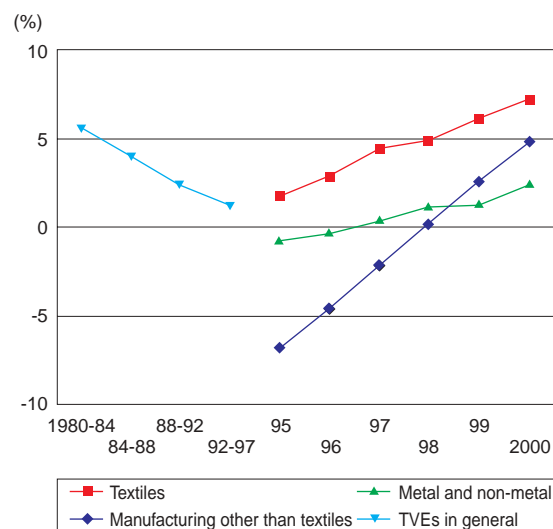


Fig. 1. TVE productivity growth

Note: Almost all enterprises in our sample changed ownership in the outset of the 1990s.

Econometric Analysis of Pastoral Management and Grassland Desertification on the Mongolian Plateau

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1. Objectives

Problems of desertification caused by inadequate pastoral management have emerged on the Mongolian Plateau, which covers the northern part of China and Mongolia. While

pastureland in Mongolia is an open-access resource, it is virtually individualized in China. By comparing pastoral economies in the two regions, this study explores the effects of land property rights on regional overgrazing. The study also works out possible solutions to the

overgrazing problem in the regions.

2. Method

Empirical analyses are carried out for pastoral production and overgrazing problems in the Inner Mongolia Autonomous Region of China and the central part of Mongolia, *i.e.*, the Tov, Khenti, Dundgobi and Selenge prefectures. In both regions, 300 household surveys are carried out and econometric analyses using stochastic production frontier models and linear regression models of grazing pressure are conducted.

An additional analysis is carried out to investigate economic factors of forage preparation for winter. As snow and cold damage are increasing due to degradation of pastureland and climate changes, forage preparation for winter has become important for livestock farmers.

3. Results

The results of survey reveals that the productivity of livestock production declines and household incomes also decline near the urban areas in Mongolia, while there is no evidence for regional disparity in the productivity and the incomes in Inner Mongolia (Table 1, Table 2). Hence, one can say that, in case of ambiguous land property rights, regional overgrazing may occur, which decreases farm incomes in the area, even though overall grazing pressure is low. Also, in this case, farmers have little incentive to invest in wells, which are essential capital goods for grassland. In order to utilize open-access grasslands efficiently,

adequate government intervention to prevent regional concentration of population or production and to promote capital investment is necessary.

The probit model estimation for preparation of winter forage shows that small-scale farmers tend to neglect forage preparation, which implies that government policy to prevent winter disasters should target small-scale farmers.

It was found that large-scale dairy farming is useful to reduce grazing pressure relative to farmers' incomes. Although risks of the management are higher, it generates relatively high value added (Table 3).

Cooperation among farmers is also important for improvement of efficiency in production and distribution. Yet, the results of the survey conducted in the Gobi regions of Mongolia reveal that, while the proportion of cooperative members to the total population are relatively high (43 to 55 percent), very few farmers (zero out of 123 households) actually utilize the distribution channels of the cooperatives. Therefore, institutional arrangements, as well as development of high value-added production systems, are of critical importance for sustainable growth of livestock production.

4. Publication

Shunji Oniki and Shuang Xi (2004) Regional overgrazing in Inner Mongolia and Mongolia: results of households surveys, *Journal of Rural Economics* 75 (4): 198-205.

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Table 1. Summary of Survey for Livestock Management in Inner Mongolia (per household)

	Region					
	Western Siziwang		Eastern Siziwang		Sunitezuo	
	SW1	SW2	SE1	SE2	SN1	SN2
Distance to the regional center	100	147	64	115	57	112
Number of animal (sheep unit)	307	356	313	206	476	554
Area of pasture (hectares)	431	725	353	304	750	869
Stocking rate	1.14	0.79	1.42	1.08	1.92	2.13
Production costs (1,000 yuan)	22.8	28.0	24.1	23.3	29.9	28.8
Gross revenue (1,000 yuan)	40.7	40.7	40.7	40.7	40.7	40.7
Income (1,000 yuan)	33.5	23.4	26.3	17.1	34.1	30.1

Note: SW1=Bainhoa, SW2=Bain Oboo, SE1=Bainchogt, SE2=Ulanhata, SN1=Bain Ula, SN2=Dalai.

Table 2. Summary of Survey for Livestock Management in Mongolia (per household)

	Region					
	Tov			Khenti		
	TV1	TV2	TV3	KH1	KH2	KH3
Distance to the regional center	53	106	146	401	458	531
Number of animal (sheep unit)	411	174	554	434	378	761
Costs of input materials (1,000 tugreg)	375	99	409	357	188	182
Gross revenue (1,000 tugreg)	706	253	1,164	1,846	1,010	1,632
Income (1,000 tugreg)	473	261	926	1,607	922	1,531

Note: TV1=Selgeren, TV2=Arkhusht, TV3=Bayanjargalaan, KH1=Kherlen, KH2=Batnorov, KH3=Norovlin.

Table 3. Production Costs of Dairy Farms in Mongolia

	Farm		
	A	B	C
Size of management			
Number of cattle	20	55	155
Annual production of milk (1,000 little)	1.5	2.0	1.4
Annual sales (1,000 tugreg)	375	273	226
Labor	4	3	21
Costs of feed (1,000 tugreg)	428	38	0
Capital depreciation (1,000 tugreg)	155	37	30
Other production costs (1,000 tugreg)	4	0	6
Gross revenue (1,000 tugreg)	375	273	226
Income (1,000 tugreg)	130	205	141
Profit (1,000 tugreg)	-401	148	124

Note: Location: A=Batsumber, Tov, B=Narinam, Ulaanbaatar C=Chagaannuur, Selenge