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The rural economy in China and Russia – what is different? Is there a lesson for Russia?

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Abstract

A question frequently posed in Russia amid the economic and social anarchy of the post socialist period is whether it might not be better off if it followed the Chinese model of transition. This latter might be described in broad terms as a very slow liberalisation of the political system with a certain devolution of decision-making powers from the “centre” down to provincial and local levels while at the same time a fairly rapid introduction of the capitalist model of privatisation and the market economy.

The de facto situation on the ground with regard to the operation of market forces in rural China and rural Russia today differs little in reality. However, the historic evolution of institutional processes and relationships and the relative levels and organisation of the production resources of land, labour and capital are very different in rural China and rural Russia. Therefore, there are enormous differences in the challenges faced in raising the level of value added per capita in these two rural environments.

The paper presents the general political, administrative and economic context, including the spatial differences, within which the rural economy operates in both countries. The rural economy in both, including agriculture and non-agricultural activity, are compared. The special role of the Town and Village Enterprises (TVE) in China in invigorating the rural economy is analysed in detail, drawing in particular on two contrasting Township case studies. The circumstances, which facilitated rural development in China, do not exist in Russia.

The conclusion is that Russia has little to learn from the Chinese model of rural development and must indeed develop its own model to address the current crisis in the countryside and rural society. Nevertheless, one lesson is clear, the current crisis in rural Russia can only be resolved with significant public sector intervention.

Key Words: Rural development, China, Russia, Town and Village Enterprises, rural development policy

JEL Classification: R11, R12, R14, R15, R23, R30, R50.

1. Introduction

Two critical factors define rurality and by extension the problems, which are endemic to the rural situation: dispersed population or lack of population concentration and heavy dependence on the primary sector. Dependence on the primary sector (normally agriculture) means low levels of value added creation and thus relatively low incomes per capita, which are not compensated for by alternative income sources. Surplus labour in the form of unemployment or disguised unemployment leads inevitably to out-migration in the absence of local alternative labour absorption activity.

Structural change is an inevitable consequence of economic development but is also an important contributing factor to economic development. This is a natural dialectic, which goes on relentlessly, influenced by changing technology, the evolving economic environment and policy intervention. The desired structural change is a move toward efficient structures in primary output, maximum local value added to that output and increasing alternative off-farm employment opportunities in ever increasing value added activities. However, the great challenge in this rural restructuring is how to create that alternative off-farm employment to absorb the surplus rural labour and generally raise living standards.

The general objective of this paper is to draw on research work and experiences in China and Russia in order to evaluate the scope of this alternative employment creation, the obstacles to its creation and the policy initiatives, which seem most appropriate to the local circumstance. The paper follows the mixed success in China and asks what lessons can be relevant to the transition process in rural Russia. The paper first presents the somewhat contrasting rural environments in China and Russia. It then reviews the general rural problem in both countries. The principal contribution of the paper, the role of Town and Village Enterprises in absorbing rural labour in China is then presented and finally the question is addressed of how appropriate the “Chinese model” is to rural Russia today.

2. Background comparative contexts

2.1.1 Political and administrative structure

The political and administrative system in China is communist, akin to what it was in the Soviet Union. There is a dual system, the Government structure, which includes the judicial, legislative and executive arms, extends from the national to the local level; there is the corresponding Communist Party structure, which includes the executive and legislative arms and the political arm, where the latter is synonymous with the legislative arm of government. The Party, in general oversees all aspects of government functions. There is a relatively high level of autonomy at the provincial and local levels, although subject to central government legislation.

Some democratic processes have been introduced in recent years. For example, at the village and township levels, all but one member of the local council are elected by the citizens; one member is appointed by the Party. The town and village mayors are, also elected by the local citizens. At the national level, a meeting of the National Congress

in 2002 agreed to broaden its membership to non-Party members, in particular the business community.

There is an orderly and relatively competent administrative system, where the various functions of the government ministries, operating from the national to the local level, and of the various sub-national administrations are carried out in a relatively effective manner. Despite the existence of a sub-culture of fraud and bribery, the environment for market activity is quite positive.

There are however, a number of novel institutional initiatives, which have achieved two fundamental objectives, namely, improving economic efficiency and at the same time not offending the centres of power (Qian, 2002): (i) A “dual-track” approach which liberalised prices at the margin while retaining plan prices and quotas. This allowed producers to sell the excess supply through the market once the plan targets were achieved; (ii) Local government were allowed to establish and operate enterprises, Town and Village Enterprises (TVEs), which were more efficient than state-owned-enterprises (SOEs) and gave a greater share of value-added created to the local authorities, than would be the case with private enterprises; and (iii) It generated funds for the local authorities, which were retained locally and used to stimulate local economic activity and provide local social infrastructure; and (iv) Anonymous cash transactions were allowed and earnings and wealth could be hidden in anonymous bank accounts. This prevented the State from taking excessive amounts of privately earned money, which provided a huge local incentive to work and invest.

The TVEs are an important source of income for the local authority. The resulting local business and social environment has created a virtuous cycle of growth and development. This is quite in contrast to what happens in most developing countries and transition countries where finances are sucked out of rural areas both by government and the private sector to be invested in the urban centres.

The recent political and administrative experience in Russia has been quite traumatic. The Communist system of the Soviet Union has been replaced by a fully-fledged democratic system. The government system is somewhat akin to that of the US: there is a constitution, a President with significant executive powers, and upper and lower houses of Parliament. There are regional and local governments, with elected chief executives and elected legislative bodies. Although the regional and local authorities are subject to the Federal government, they have responsibility for certain functions, particularly in regard to the local economy. The central administrative system is structured according to the ministerial functions, which are exercised from the national to the local level.

The brutal nature of the transition from the communist to the democratic system of government, combined with the massive privatisation process, has led to a chaotic environment, where political influence was used to acquire economic ownership and control. Despite being elected to better the social and economic wellbeing of their citizens, heads of local authorities used the administrative areas under their jurisdiction as personal fiefdoms, the economic spoils of which could be used for personal enrichment, to be shared with their local business cronies (Cuddy and Gekker, 2002). The chaotic privatisation process and its aftermath, combined with a

drastic reduction in government expenditure has led to a cumulative decline in economic activity. By 1997, industrial output and agricultural output had declined by 42% and 62%, respectively (Thiromirov, 2000). In addition, the drop in value-added creation and the failure of the central government to put in place an effective tax collection system left government coffers empty and the consequent impoverishment of the public service provision institutions. The old system of control was unable to adapt to the new demands and the putting in place of a new system could only take place over an extended period of time.

In contrast to China, the Russian local authorities have great difficulty extracting taxes from private enterprises, while at the same time any extra revenues, which might be generated at the local level are taken over by the regional or federal government. Consequently, there is no incentive to create additional revenues and even where these are available there is no incentive to spend extra revenue on creating a positive environment for local enterprise as the local authorities benefit little from the success of private business. Zhuravskaya (2000) suggests that there is quite a lot of evidence to support the view that local governments generally in Russia over-regulate business in contrast to the Chinese counterparts who actively promote entrepreneurial activity. Indeed, within Russia itself a positive correlation has been shown to exist between fiscal incentives and new business start-ups in the regions.

Despite the enormous achievements of President Putin in trying to establish the rule of law, the market environment is still quite hostile with considerable risk involved in any private business venture. Although, a considerable amount of legislation has been passed in order to create a supportive market environment, the implementation and enforcement of this legislation is very often rudimentary. Declaring that the old system is dead and that it is replaced by a totally new system, does not mean that the new system can be generated instantly. The current problems in Russia relate to general issues of institutional structures, which are extremely weak or non-existent, which will require a considerable period of time to evolve. Nevertheless, since the drastic decline in the rouble in 1998, there has been a take off in the economy, generally.

2.2 Macroeconomic situation

It is difficult to compare the macroeconomic situation between the two countries because of data comparability and sources, so that comparisons should be seen, primarily, as indicative in nature. China has nine times the population but only half the surface area of Russia, although both have identical arable land areas (Table 1). So China has only one ninth the arable land area per capita of Russia. Indeed, China has one of the smallest arable land areas per capita in the world, which has long term implications for local food supply.

The income per capita in China is less than half that in Russia, due primarily to the relatively low urban/rural population mix and in particular the very high percentage of the Chinese labour force which is still engaged in agriculture. Starting from a relatively low base, the Chinese GDP growth rate has been consistently high over the past 10-15 years. Russia, on the other hand from a relatively high base, has experienced a very significant drop in GDP during the early years of transition, which

has been somewhat reversed in the recent years. Nevertheless, this recovery is uneven and volatile.

Table 1: Macroeconomic parameters for China and Russia

	China				Russia			
	1998	1999	2000	2001	1998	1999	2000	2001
Population (Million) ²				1,287				145
Area (Million Km. ²) ²				9.6				17.1
Arable Land (Million Ha.) ²				127.7				130.0
Arable Land per capita (HA)				0.1				0.9
GDP/capita (\$)				904				1,944
GDP Growth Rate	7.8	7.1	8.0	7.3	n.a.	6.4	10.0	5.0
Unemployment rate ^{2,3}				10.0	13.2	12.6	9.8	8.9
Inflation	-0.8	-1.4	0.4	0.7	5.1	58.2	46.5	19.2
Fiscal Balance (%GDP)	-3.0	-4.0	-3.6	-3.2	-7.9	-3.6	2.9	3.1
Interest Rate ¹				5.3				11.8
Net Foreign Direct Investment (Bill. \$)	41.1	37.0	37.4	37.4	1.1	2.3	-0.5	-0.1

Source: World Bank, 2003a. World Bank 2003b;¹ 2003 rates Industrial and Commercial Bank of China, 2003; Central Bank of Russia, 2003;² www.geographic.org; ³BEA, 2003.

Although the official figures are similar in both countries, a high level of hidden unemployment exists in China and Russia, which would significantly alter the official figures,. This varies from province to province in China and from region to region in Russia. It is estimated that in Russia, for example, the real unemployment figure varies from 20 to 50 % of the labour force (Blinova and Rusanovsky, 2000). The higher the level of employment in agriculture, the more specialised in a particular industrial sector and the lower the investment in institutional change, the higher the rate of unemployment is likely to be, according to Blinova and Rusanovsky.

While inflation has been extremely low in China, it has fluctuated wildly in Russia. It was extremely high following price liberalisation, declining to relatively low levels in the second half of the 1990's only to rise very steeply following the financial collapse of 1998. Correspondingly, the interest rate in China is relatively low in contrast to Russia, where it has fluctuated wildly in line with inflation. The fiscal deficit is strongly negative in China, suggesting an expansionary public expenditure linked to an increasing money supply. In contrast, in Russia the fiscal balance fluctuates between strong negative and strong positive. All of these factors have provided a very positive investment climate in China and quite the opposite in Russia.

One of the most striking contrasts between China and Russia, which is linked to the contrasting economic and political environments, is the level of Foreign Direct Investment (FDI). Whereas China has been experiencing a net inflow of the order of US\$40 billion per annum, the Russian FDI fluctuates around zero, with net positive and negative flows. Much of the Russian flow has been the result of massive outflows in the early 1990's with significant amounts of this money flowing back in the late 1990's. Whereas the FDI into China is primarily from multinationals and into the

manufacturing sector, FDI into Russia is predominantly in natural resources and services. FDI into China has been overwhelmingly in the Eastern region, 90.7% during the period 1983-89 and 88.1% during the period 1990-96 (Huang and Pieke, 2003). FDI into Russia, apart from investment into natural resources which is in the provinces, is predominantly into Moscow.

2.3 Regional variation in income and migration

There is considerable variation in income levels across both China and Russia (Table 2). Interestingly, by 1997, the level of variability was similar in both countries. Although the level of variation remained constant in China between 1993 and 1995, there is a suggestion that it is increasing in more recent years. In Russia, however, the variation in income across regions has increased quite rapidly through the 1990's

Table 2: Regional variation¹ in real incomes in Russia, 1993-1997

	1993	1994	1995	1996	1997
China	45.0	n.a	n.a	n.a	45.0
Russia	26.0	32.2	39.5	42.3	49.0

Source: Wu, 2003; Hanson and Bradshaw, 2000.

¹The measure of variation is the "coefficient of variation" = standard error/mean.

The most important factors influencing the level of income per capita in China, according to Chua and Bauer (1996), are: urban-rural composition, employment structure, educational attainment and region (coastal versus interior)). However, there is a high correlation between the level of regional GDP per capita in China in 1978 and in 1994 (Chua and Bauer, 1996), suggesting that the initial conditions are particularly important in determining the level of income. In Russia, the factors influencing regional income variation are similar to those in China, in particular, the urban-rural composition and the East/West location. A particular factor which gives rise to declining regional economic circumstances is the former regional distribution of industry, which was derived from political decision rather than arising from economic grounds. Market forces are now sweeping away those industries, which are in non-competitive locations and sectors. This particular seems to be more acute in Russia than China

One of the major effects of income variation is a migration of population from the poorer to the richer regions. In China the flow is predominantly from the more rural West to the more urban East (Figure 1 and Table 3). In Russia the flow is from the rural less densely populated East, and the colder more inhospitable North to west of the Urals (Figure 2). Migration flows in Russia are complicated by the inflow of citizens of the republics of the former Soviet Union and from south-east Asia.

Table 3: Origin and destinations, inter-provincial rural migration in China, 1999 (%)

	Eastern	Central	Western	Total
Eastern	6.7	48.9	25.9	81.5
Central	2.5	4.6	2.1	9.2
Western	1.1	1.4	6.8	9.3
Total	10.3	54.9	38.4	100.0

Source: Cui,

2.4 Enterprise privatization

China is gradually moving industry into private ownership, nevertheless, there is still 30% of the industrial labour force employed in State Owned Enterprises, while 23% is engaged in collectively owned enterprises (Table 4). The latter are gradually being privatised. In Russia, 90.7% of output in 1997 was from non-state enterprises (Thiromirov, 2000).

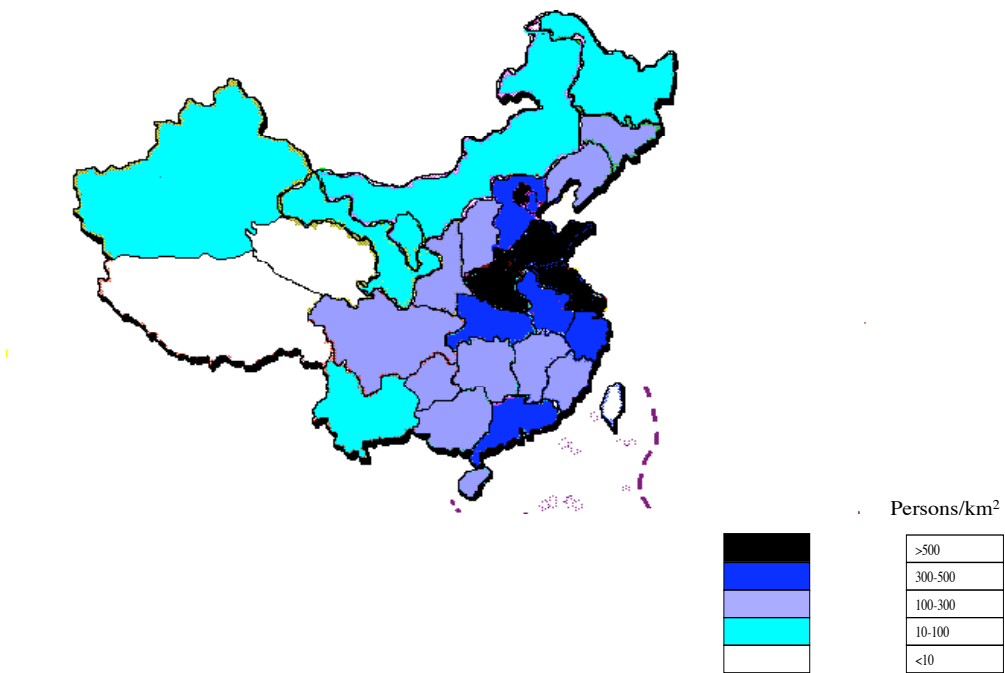
3. The rural economy

3.1 The importance of the rural economy

China is considerably more dependent on the rural economy than Russia in terms of the percentage of the population, which lives there, 60.9% in China versus 26.6% in Russia (Table 5). However, the share of output/income generated in the rural area is small relative to the population share in both countries. In broad terms this says that the output/income per capita in the rural areas is considerably lower than in the urban areas in both China and Russia. It is of the order of 28% and 36% in China and Russia, respectively.

In China 50% of the national labour force is engaged in agriculture compared with only 12% in Russia (Table 6). Thus, whereas in China 82% of the rural population is engaged in agriculture, only 46% of the rural population in Russia is engaged in agriculture (derived from Tables 5 and 6). However, those engaged in agriculture in

Figure 1: Migration flows in China, 1994



Source: Wang, 1997.

Figure 2: Regional migration in Russia, 2000

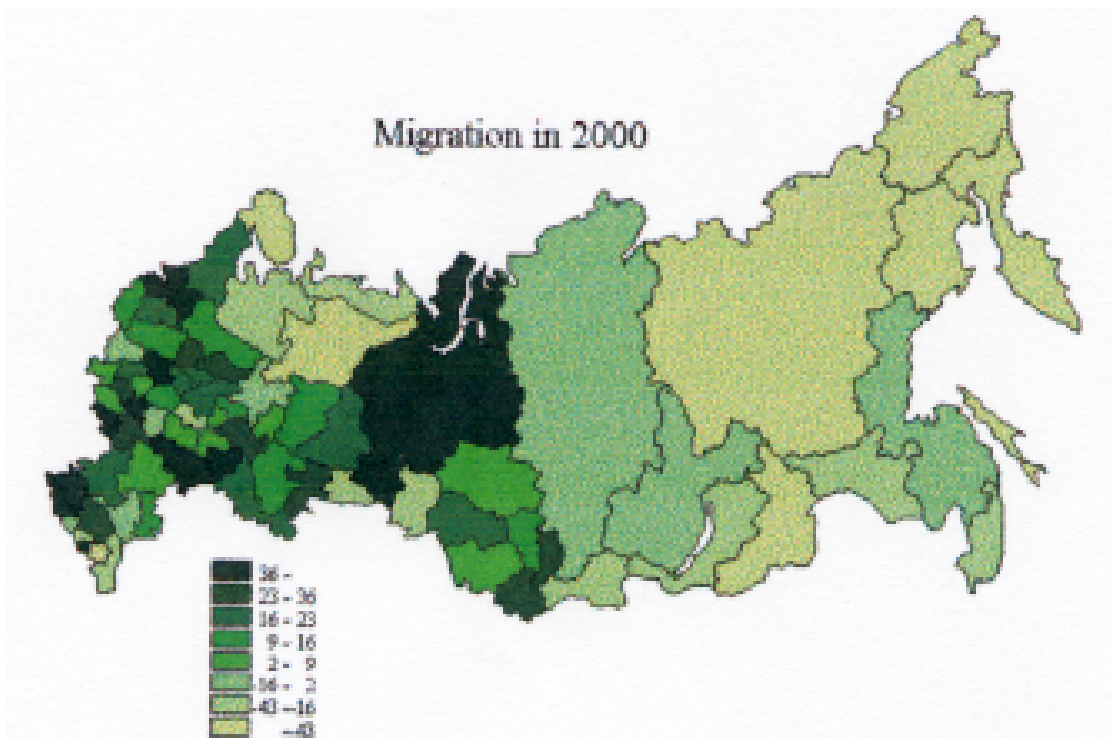


Table 4: Employed persons by enterprise ownership in China, 2002

	Share of Labour (%)
State-Owned	30.6
Collective Owned	22.8
Private	19.2
Shareholding	16.6
Foreign Investment	3.9
Investment from Hong Kong, Macao and Taiwan	6.1
Other	0.8
Total	100.0

Source: NBS, 2003. Communique on the Main Results of the Second National Census of Basic Units in China.

China generate output/income per capita, which is only 18% of the national average compared to 53% in Russia. It can, also, be concluded that in rural China agricultural workers earn only 27% of what is earned in the non-agriculture sector, in contrast to rural Russia where agricultural workers earn 174% of the income of those engaged in the non agricultural sector (Table 7).

Table 5: Share of population and output in rural and urban economy of China and Russia, 2001/2002

	China		Russia	
	Population	Output	Population	Output
Rural	60.9	27.5	26.6	11.5
Urban	39.1	62.5	73.4	88.5

Source: Labour Statistics (2002); NBS, PRC, 2003 Statistical Communique 2002, February 28, 2003; Preliminary results of the All-Russian Population, Census 2002; Output Statistics (2001); Goskomstat of Russia, 2002, National Bureau of Statistics of China, 2002.

Table 6: Sectoral Share (%) of GDP in China and Russia, 2001

	China		Russia	
	Labour	GDP	Labour	GDP
Agriculture Share	50.0	15.2	12.3	6.9
Industry	22.0	51.1	22.7	37.6
Services	28.0	33.6	65.0	55.6

Source: World Bank, 2003a and World Bank, 2003b (GDP), www.cia.gov/cia/publications/factbook/geos/rs.html/Econ (Labour)

Table 7: Relative output/income per capita in the rural area (versus the urban area), in the agricultural sector (versus the non-agricultural sector) and in the agricultural sector in rural areas (versus the non-agricultural sector) in China and Russia

Location		China	Russia
National	Rural/urban	28	36
	Agricultural/Non-Agricultural	18	53
Rural	Agricultural/Non-Agricultural	27	174

Derived from the previous tables.

These figures reflect the considerably depressed nature of the rural economy in both countries relative to the urban economy, which is explained, to a large degree, by poor incomes in agriculture relative to non-agriculture in both countries. This is particularly the case in China. However, the most striking contrast is within the rural area where income per labour unit in agriculture in China is extremely low compared to non-agricultural activity, whereas the reverse is the case in Russia. This reflects the contrasting situations in the non-agriculture sectors in rural China and Russia: the growth and dynamic of the TVE sector in China, which has absorbed significant labour out of agriculture, has not been matched by a corresponding growth in SMEs in the non-agricultural sector in Russia.

The current income structure in rural Russia is in stark contrast to the almost universal relationship of agricultural incomes and non-agricultural incomes in rural areas. The non-agricultural sector in rural Russia is extremely depressed and is unable to generate reasonable income for the non-agriculture labour force and much less able to absorb labour from agriculture. This is the crisis of rural Russia today.

3.2 Agriculture

Post revolution agriculture in China was characterised by the state owned communal lands being farmed by “work brigades” or collective production teams of between ten and one hundred families. All production went to the state and families were given subsistence income. The reforms of 1978 created a ‘household responsibility system’ that transformed most of this collective production system into individual farmer-family based production units (Table 8). The land was divided among farm families on the basis of family size. However, the farm units were extremely small¹ and often fragmented, due to a desire to distribute good and poor quality lands in a fair way. Although the lands remain in state ownership, farm families have the right to use farm-land for periods of ten to twenty years (with prolongation promised). In return they must sell part of their output to the state at an official price but after that they are free to sell the remainder at market price and retain all profits. Essentially all arable lands in China are now in private use.

¹ There approximately 193 million farm households in China with, on average, 0.67 hectares per farm household.

The privatisation of “land use” had an extraordinary positive impact on farm output. However, the rationalisation of production methods and mechanization created a very substantial farm labour surplus. According to Huang and Pieke (2003), more capital intensive production combined with a decline in demand for agricultural produce has led to an increase in the surplus labour in rural China from 33% in 1988 to 60% in 2000. However, under the “HuKou” registration system introduced in the mid-1950s, peasants and their children (except in certain circumstances) were not allowed to become city dwellers². So, migration was restricted creating a very significant labour pool in rural areas.

Land ownership in Russia prior to reforms was primarily in the hands of the state, either as “collectives” (*kolkhozes*) or “state farms” (*sovkhozes*). Families who worked on these farms were allocated plots on which they could farm privately. The reforms of the early 1990’s effectively privatised all the state farms. They were first incorporated as “farm enterprises” and then ownership was vested in the families who worked the farms, without, however, breaking up these state farms (in contrast to China)³.

Ownership was distributed by way of shares to workers and pensioners on the farms and social service officers. Land shares were given to 12 million rural people, who were free to sell, rent or farm their land share, although legislation since then has put certain restrictions on the exercise of these options. While 300,000 households set up their own family farms, the vast majority leased their land share to the farm enterprises. By 2001, 86.1%% of Russia’s farm lands still remained in large units as “farm enterprises”, although individual farms had grown to 8% of farm lands (Table 8).

The productivity of the farm enterprises at the end of the socialist period was extremely low compared to household plots; with 97% of the arable land they produced less than 70% of output (Table 9). This relative productivity of the farm enterprises declined by 35% between 1991 and 1998 but increased by 22% between 1998 and 2000. The individual farms, which were established in the 1990’s, were even less productive than the farm enterprises, which may explain the lack of take-up of land shares in the form of land.

Although the farm enterprises have shed labour, there is still a significant excess of labour on these farms. Normally there are between four and six hundred workers on farms of 4,000 – 6,000 hectares. This is approximately 10-15 hectares of land per labour unit on large-scale highly mechanised farms (when fully capitalised), which is very low compared to Western commercial farm standards.

² The rule has been ignored at times when urban centres wish to increase their labour pool and imposed in times of high unemployment.

³ In most cases the manager retained his position in moving to the new ownership arrangements.

Table 8: Land use share (%) by type of farm in China and Russia (2000)

Type Farm	China	Russia
State-Owned	2.5	
Farm enterprise		86.1
Individual Farm	97.5	7.9
Household plot		6.0

Source: National Bureau of Statistics of China, 2001; Serova, 2003.

Table 9: Change in land structure and production

	Farm enterprises	Individual farms	Household plots	Farm enterprises	Individual farms	Household plots
	Share of arable lands			Share of output		
1991	97.0	0.6	2.0	68.8	-	31.2
1998	88.2	8.2	3.7	39.2	2.2	58.6
2000	85.7	9.4	4.9	43.0	3.0	54.0

Source: Taken from Serova (2004)

Through the late 1990s and early 2000s serious restructuring is really occurring in the large farms in Russia. While approximately, 5-6% of farmland shares change between users annually this is predominantly among the large enterprises (Serova, 2004). On the one hand farm land is moving from financially weak or bankrupt farms to financially strong farms and on the other there are investors from outside of agriculture, agribusiness (distribution, factor inputs, use of outputs – vertical integration) and oil, gas and financial institutions, who are investing in the more profitable farms. Some of these companies lease up to 300,000 hectares each in several regions. Thus there is an increasing concentration in land use. Although the predominant corporate form of the farm enterprise is like a production co-operative (46%), the more successful are joint stock companies or have a very strong manager.

There is an even more striking concentration in agricultural output than in land use, due primarily to the capacity of the financially strong farms to respond to market forces, while the financially weak or bankrupt farms are not (Uzun, 2003). The financially stronger farms, approximately 40% of all farms, produce 70% of the total value added. Indeed, at the very upper end, 7% of farm enterprises account for nearly 50% of the sector's sales (Table 10).

On the solvent farms there is an accumulation of assets, including farm mergers, land acquisition and capital investment. Insolvent farms lose land and are still unable to enhance their production capacity. While all farms are shedding labour, the outflow from insolvent farms is most marked, where insolvent farms have less than half the labour force of solvent farms of comparable size. Thus there is an increasing concentration of the factors of production in Russian agriculture.

Table 10. Russia: Agricultural Enterprises Concentration, 1999, share of the top enterprises

Number of enterprises	Share in total number (25,000), per cent	Share in total sector's annual sales, per cent
10 top	0.00	2.9
300 top	1.2	18.5
1734 (with sales>US\$ 1 bln per year)	6.9	47.9

Source: (UZUN,2003)

With the collapse of the socialist system in the early 1990's agricultural supply contracted rapidly due to the decline in demand, the disappearance of producer subsidies (which had distorted relative prices, both inter-product and spatially), input/output price squeeze due to regional restrictions on food prices, the lack of investment finances and the destruction of the internal market infrastructure, allowing cheap imports to substitute for domestic produce.

Following the devaluation of the rouble in 1998, farm enterprises, which were in a healthy financial situation, responded to positive market signals. The dichotomy in the behaviour, between the financially strong and the financially weak is underlined by an extraordinarily growth in productivity, which is emerging: while the area under various crops has declined or marginally increased, there has been very significant increases in output (Table 11).

Table 11: Area under basic crops and production in Rusia 1998-2003

	1998	1999	2002	2003	1998	1999	2002	2003
	Millions Hectares				Millions Tonnes			
Grain	50.8	46.8	48.2	42.5	47,9	54,7	86,6	67,2
Sugar beet	0.8	0.9	0.814	0.924	10,8	15,2	15,7	19,3
Sunflower	4.1	5.5	4.089	5.3	3,0	4,2	3,7	4,9
Potato	3.3	3.3	3.2	3.2	31,4	31,3	32,9	36,6
Vegetables	0.7	0.8	0.8	0.9	10,5	12,3	13.3	14.8

Source: RF Goskomstat

The upturn in Russian agriculture has led to a significant participation in the international market, particularly in cereals. Russia is a very significant, although at present volatile, grain producer on the world stage and its high output in 2002 allowed it to be the number three grain exporter in the world. Over 80% of its trade is with non-CIS countries.

It is clear that the potential for Russian agriculture is very strong, compared to that of China, with its large enterprise farms, which have yet to be fully exploited. However, where the financial structures are strong, the production and productivity is also strong. It will take some more time for the present restructuring, consolidation and concentration to stabilise. Russia will then be a major player on world food markets.

Inevitably, this will lead to labour shedding from agriculture. The question is, where can this labour go? There is already a crisis in off-farm employment in Russia, both in terms of employment opportunity and income. Labour shedding from agriculture will only add to this crisis.

3.3 Off-farm employment

Land area per household in China is so small that relying on agriculture alone can only give a subsistence living. On-farm income per labour unit is significantly lower than in off-farm employment. Consequently, alternative employment is keenly sought out. This can be full-time or part-time off-farm employment, locally, within commuting distance or through migration, where local alternative employment is not available. Local off-farm employment is most likely to be available in centres of population concentration. As seen earlier, the predominant direction of migration is from West to East, from areas of dispersed population to the proximity of large urban centres. The proportion of agricultural households in rural area is highest in the West and lowest in the East (Table 12). In addition, among agricultural households, those, which are totally dependent on agriculture, vary considerably from East to West. Nearly half (47%) of all agricultural households in the East have off-farm income: 42% have some off-farm income and 5% have mainly off-farm income. Only 39% of farm households in the West have off-farm employment. This contrast is due primarily to the availability of off-farm work.

Table 12: Industrial structure of rural household operation in the East, Middle and West parts

Region	Rural households		Agricultural households		
	% Agricultural Households	% Non-Agricultural Households	% With No Off-Farm Income	% With Off-Farm Income	% With Mainly Off-Farm Income
East	84.71	15.29	52.75	42.51	4.74
Middle	94.71	5.47	66.70	23.44	9.86
West	95.8	4.20	70.27	26.01	3.72

Source: Derived from National Bureau of Statistics of China (2002,c).

The significance of off-farm income can be examined more closely at the micro level using survey data⁴ from Kelang village, located in Yunnan province in the West region. All households surveyed had some form of off-farm income. However, the level of overall income was very closely correlated with the level of off-farm income (Table 13). Poor households earned only 13% of their income off-farm while rich households earned 84% of their income off-farm. Indeed, there was a strong preference expressed by interviewees for off-farm employment and an even stronger preference that their children find off-farm employment.

The principal source of this off-farm employment in rural China has been the Town and Village Enterprise (TVE) (Table 14). Indeed, the TVE has had a phenomenal development as an enterprise form, which is discussed below.

⁴ This survey was carried out as part of a research project, SHASEA, funded by the EU under the Fourth Framework Programme.

The situation in rural Russia is quite a contrast to China where off-farm income per labour unit is considerably less than on-farm, despite the relatively low incomes in agriculture. This arises from the dearth of alternative off-farm employment. Of course there are two contrasting situations within agriculture. There are the household plots and individual farms where income per labour unit, in relative terms, is considerably higher than on the farm enterprises. On the latter, workers get wages based on the productivity of the farms which is extremely low. Of course, workers on the farm enterprises (as well as those whose main employment is non- farm) also have household plots.

Table 13: Household income in Kelang (Yuan per year)

Income category	Average Household Income by source (Yuan			Agriculture Share (%)
	Agriculture	Non-Agriculture	Total	
Low income	1,617	811	2,428	67
Middle income	3,151	3,903	7,054	45
High Income	2,824	15,100	17,924	16

Low income: Household income is less than 1,000 Yuan per person per year (11% of all households).

Middle income: 1,000-2,000 Yuan per person, per year (80% of households).

High income: Over 2,000 Yuan per person, per year (9% of households).

Source: Cuddy et al. (2003).

Table 14: The structure of employment in 2001

		(Ten thousands)	Percentage
URBAN AREA:			
	SOE	7,640	18.25
	Collective	1,291	3.08
	Private and self-employed	13,409	32.45
	Total	23,940	
RURAL AREA:			
	Township and village enterprise	13,086	31.27
	Private and self-employed	3,816	9.12
	Total	17,902	
TOTAL		41,842	100

Source: Calculated from National Bureau of Statistics (2001).

Non-farm employment in rural Russia has been predominantly in public administration, distribution and transport and social services. Many of the immediate services required for farming were provided from within the farm. Industrial production has been associated primarily with agricultural inputs and outputs, little industry located in rural areas. With expansion in agricultural output, there is potential for employment creation in the production of inputs and the processing of output. A major problem, however, for private industrial development, is the vast areas of rural Russia, which lack any decent size town, which could be a focus for industrial production. These rural areas are unable to benefit from the agglomeration economies

or the phenomena of “borrowed size”⁵. It will also take a considerable amount of time to establish the various market services associated with agriculture. However, the critical question again is, where will these enterprises locate? Without very considerable public support, they will not locate outside the larger urban centres.

The growth and expansion of SMEs is not sufficient to make any impression on the rural labour market, particularly given the new labour outflows from agriculture. The majority of the enterprises is newly formed by private local entrepreneurs, in a hostile economic, political and social environment, with little assistance from the state or local authorities. Enterprises have great difficulty in growing in contrast to the TVE in China, where the local environment is created by the actual enterprise owners.

In 1999 there were 890,600 SMEs in Russia (Russian SME Resources Centre, 2000). The total number of full time employees at small enterprises by early 2000 was of the order of 6.5million people or 10% of the total number of employed at Russia’s enterprises. However, these were predominantly in the cities, for example, Moscow (20% of total), St. Petersburg (12% of total). The main obstacles to SME development in Russia are institutional in nature (Figure 3). Rent seeking by private and public agents is a particularly endemic activity in Russia, to which rural enterprises are especially vulnerable.

4. TVE in China and their spatial importance

4.1 TVE in China – the big difference

Over the past two decades, social and economic development policy as applied to Third World and transition economies has been substantially shaped by Western concepts and practices, delivered under unilateral and bilateral aid programmes. But the results of many such transfers have been rather less than satisfactory (Gibb and Li, 2003). The distinct feature of transition and developing economies is the underdevelopment of institutions that constrain the state and support markets. Unfortunately, in many transition and developing economies, perhaps too much faith is placed in idealized state and market institutions without enough attention paid to the reality of the existing institutional environment (Che and Qian, 1998).

⁵ Borrowed size relates to enterprise locations at a distance from a large urban centre, where access to the urban enterprises and services (positive agglomeration externalities) is relatively easy, while at the same time the costs (negative agglomeration externalities) are relatively low.

Figure 3: Obstacles to enterprise development in Russia, 1999, 2002.



Note: 0 = No obstacle; 4 = Major obstacle
Source: EBRD/World Bank, 2002

Rural industry has made an extraordinary contribution to Chinese rapid economic growth over the past 2 decades. Its contribution to national gross industrial output rose from about 10 percent in 1980 to 56 percent in 1995. Output in the rural industrial sector grew at an average annual rate of nearly 20 percent during the 1980s, and the sector created more than 5 million new jobs annually over 1978-1996. The Township and Village enterprises (small and medium enterprise in rural area of China) have been at the heart of this development. It is a special feature of the Chinese economic system during the transition period.

The TVE has different characteristics to the normal enterprise in the market economy. They are classified into two sub-categories, according to the type of ownership and control: (i) the “private” TVEs and (ii) the TVEs run by township and village committees or authorities. TVEs in the first category are the ones run by households either as individuals (named “individual TVEs”- with less than 8 employees- and “private” if they have 8 or more employees) with private assets and profit aims or as partnerships (union) or by joint ventures. The second category includes the TVEs “collectively” owned, which are run by local administrative units (town, township and district local government and village committees), or by rural households in co-operation with their local government or committee.

4.2 TVE through the stages of reform

China was a poor and backward agricultural country prior to 1949, and most of its rural areas had only a few small workshops and some handicraft industries. During 1955-1957, a large-scale agricultural cooperative movement was launched. Farmers, who were working part-time in handicraft industry, as well as individual handicraft workers, were organized into specialized “sideline” production teams as agricultural producers’ cooperatives (Tong, 1999). However, all of them failed shortly thereafter. These failed experiments were the first attempt at rural industrialization in which local community governments played an essential role.

During the nationwide agricultural mechanization drive of the early 1970s, rural small-scale industrial enterprises re-emerged rapidly. Most of these enterprises started as agricultural machine repair shops and food processing mills, and many of them soon became subcontractors of SOEs in nearby urban areas, these community enterprises were known as "commune and brigade enterprises" the predecessor to the TVEs. Peasant workers employed by these enterprises only received work points in their own production team, with whom the enterprises shared their profits. These enterprises were under the jurisdiction of the ministry of Agriculture, and there were strict regulations governing the industrial activities that they could carry out. Policy at that time stressed the 'five small' rural industries, iron and steel, cement, chemical fertilizer, hydroelectric power, and farm implements. The factories involved were small relative to urban factories, but rather large compared with workshops and factories in most countries.

The reforms of 1978, which created the 'household contract responsibility' system, replaced the commune production scheme in agriculture with a household based system. This increased productivity and freed up labour from agriculture. At the same time the community government shifted its focus to rural industrialization. In 1984, with the abolition of the commune system, the central government renamed "commune and brigade enterprises" as "township and village enterprises". During this period, the central government's attitude toward TVEs changed from tolerance to encouragement. It issued several internal documents that promoted TVEs in the 1980s and in 1990, one of the most comprehensive legal regulations issued is *The regulation on Township and Village collective Enterprises of the People's Republic of China*. This regulation defined the ownership rights of a TVE's assets; allocation of control rights; and rules concerning distribution of after-tax profits. The only central government agency responsible for TVEs was the small " Township and Village Enterprises Bureau" under the Ministry of Agriculture. TVE supervision was carried out by local government. Under the new regulation, TVEs' assets legally belonged to the residents of the township or village. The regulation restricted the use of revenue to essentially two purposes: reinvestment and local public goods - agricultural infrastructures, agriculture technology services, rural public welfare, renewal and transformation of enterprises, or development of new enterprises (Ministry of Agriculture of China , 1990).

Several new development concerning TVEs have emerged since 1994. One is the emergence of the mixed corporate form known as " joint-stock cooperatives". Under this form, shares of TVEs are sold or distributed to TVE employees and managers or community residents in the form of both "collective shares" and conventional individual share. Another development is the partial privatisation of TVEs, mainly in the form of sales of control rights to managers and employees or to foreign investors. After the partial privatisation, the local government continues to play a role in rural industrialisation of concentrating its attention in investment in infrastructure, coordination and urban planning and other conventional public works. In many cases, the community governments continue to hold a minority stake in the partially privatised former TVEs. (Che and Qian,1998).

Another significant development, which will have potential impacts on village-run enterprises, is the direct election of village leaders by village residents. By 1995, about one-third of the villages had already formulated 'village self-governing charters'.

Since 1979 through to the mid 1990s there was a steady decentralisation of economic initiatives to provincial, municipal, and even local government, and a shrinking of the central state component of the economy and of the share of central government tax revenue. At the root of the decentralization process was the designation of 'local authorities' as the main tax collectors. Township and village governments were able to retain a large portion of their revenues, while obtaining few revenue transfers from the higher level. So the local and regional levels have become the important units of development. Consequently, the most relevant objectives of a community government are considered to be an increase in government revenue, creation of non-farm employment, and an increase in rural income. Conceivably, the first provides financial support, and the latter two provide political support for the community government (Jin & Qian, 1996). These three objectives stimulate the local government to push the industrialization in the rural area.

The local authorities' control of the industrial process was able to overcome many of the institutional shortcomings of the local environment with underdeveloped markets which were unable to allocate resources or distribute products efficiently and which would be quite difficult for private enterprise. It was able to overcome problems of property rights, the uncertainties of government intent with regard to the appropriation of value added and access to finance. Gibbs and Li (2003) argue that the decentralised process of market orientation cultivated a strong culture of "Guanxi". This latter is an intricate networks of mutual obligations, and cultural norms closely associated with entrepreneurship, which allow ambiguous local power holders to harness enterprise to fit with local conditions. In addition, the gradual reform strategy allowed for the creation of institutions, and these institutions led to greater competitive pressures in the economy (Chen and Rozelle, 1999).

The success of the TVE and the changing market environment gave rise to changing internal management organisation (Chen and Rozelle, 1999). There was a movement from government leader-run fixed wage contract to profit-sharing contract and to a fixed -payment contract. In the early reform era, government administrators not only were responsible for the strategic decisions of the firm and its external management, they also took an active role in everyday production and marketing affairs. And with the development of market economy, the local government leaders chose to give more responsibility to managers, changing the management structure of the firm to one characterised by a profit-sharing arrangements between the local government and the enterprise manager. There is a strong correlation between contractual form and market development. While the pace of market development, however, has not proceeded uniformly, the evolution of managerial contracts has proceeded fastest in those areas with the fastest rate of market expansion. In the absence of well functioning markets, leaders have a comparative advantage in operating an enterprise since they can effectively interact with units outside of the firm, such as finding sources of labour, energy and raw materials, arranging for investment funds, acquiring technologies, and finding markets for outputs. This more than offsets any

inefficiency suffered because a busy bureaucrat is running a firm. As markets develop, this advantage disappears, and in response to increasingly competitive pressures, leaders find that they can make their firm more profitable by providing managers with more incentives to work harder, more autonomy, and ever larger shares of residual profits.

Naughton (1994) suggests that in addition to the advantages afforded by local government ownership in the start-up and management of enterprises and their capacity to respond to the changing market environment through changing the management structure, TVEs were able to take advantage of certain economic conditions. They were able to use appropriate production technologies in order to take advantage of cheap labour where capital and natural resources were expensive and to adapt to the changing environment. They were able to exploit the price distortions created by the socialist price system and enter niche markets, which the SOEs were too inflexible to enter. They were competitive, self reliant and responsive to opportunities. Taxes on profits were low, rising from 6% in 1980 to 20% in 1985. All this made them extremely profitable.

4.3 TVE development in contrasting contexts: East/West

The East and West are two contrasting regions within which to observe the emergence and growth of TVEs. Arising from historical and economic reasons, the East is significantly more developed than the West and through a cumulative causation process the TVEs have been able to take advantage of and at the same time contribute to this process.

The opening up of the “Treaty Ports” to western investment and technology in the early 20th century pushed forward the industrialization in the East and South East, mainly in light industry. The rapid growth of the economy also developed the local infrastructure and urbanization in the region. Local entrepreneurs were able to accept and exploit the developing market opportunities. Also, the Japanese, who occupied Northeast of China during World War II, built railways and ironworks in developing heavy industry there based on the local resource. These developments laid the basis for the East/West industrial divide.

Agriculture has also been far more developed in the east than in the rest of the country due to its advantageous geographical and climatic condition. Land and labor productivity in the Yangtze and Pearl River Deltas, for example, have been above the national averages due to better soil fertility, efficient irrigation and drainage, and more superior production techniques. This higher agricultural productivity has enabled rural communities in the east to quickly accumulate sufficient capital and with the labor surpluses from agriculture to establish a non-farm production base (Yao and Liu, 1998).

The “Coastal Development Strategy” advocated by the former general secretary of the Chinese Communist Party Zhao Ziyang in the early 1990s encouraged the development of rural enterprises based on rural labour in the coastal areas to produce labor-intensive light industrial products for export. Deng Xiaoping on his “southern cruise” in 1992 emphasised the policy of the openness of the coastal area, which

increased the inflow of foreign businesses, attracted by the low costs, productive labor and improved investment incentives (tax holidays, direct export rights, preferential access to raw materials credits, water, and electric power, etc.). The success of this policy is evident from the joint-ventures which evolved, predominantly in the East (Table 15). The East area absorbs 90% of foreign investment and contributes greatly to total income, revenue and taxes paid.

Table 15: The joint-venture with foreign investment in rural areas at the end of 1999

Area	Number of enterprise	Number of employees	Income (ten thousand)	Revenue (ten thousand)	Tax Paid (ten thousand)
East	25,013	3,366,815	46,823,298	2,211,464	1,360,014
Middle	1,429	196,670	2,806,799	146,230	96,117
West	178	24,408	238,798	14,142	13,339
Total	26,620	3,587,893	49,868,795	2,371,836	1,469,470

Source: China Township and Village Enterprises Statistic Yearbook 2000.

Because of the high rent in urban areas, the foreign investment or joint ventures were less likely to choose the urban areas. The second reason is that during that period, the SOEs still kept their role in the economy and the urban labour was mainly employed in the SOEs or collective enterprises. The welfare payments were higher in urban areas than in rural areas (in urban areas employers are liable for the social welfare of employees). So the township or rural areas, which are near the big cities with good infrastructure and cheap labour, are the first choice of foreign investors. Also, technology spilled over from the joint ventures to the TVEs in the local area, which pushed the technology development of the TVEs in these areas.

Thus the natural, historical and policy factors have created the more hospitable economic environment in the East for TVEs to develop, with more advanced market economy, better infrastructure and greater local demand for manufacturing and service inputs into foreign companies and SOEs. There was, therefore a very clear interregional unevenness of local environment within which the TVEs developed, giving an uneven pattern in of enterprise numbers, employment and, in particular, the output per employee (Table 16). The interregional divergence in development generated an interregional movement in labour from West to East (Table 3)

TVEs flourished in the 1980s and 1990s, but advanced much more significantly under the favourable market conditions and positive fiscal environment afforded in the East region; the relatively favourable growth environment in the East exercised a strong pull on the surplus rural labour, particularly in the West, fueling growth in the East to the detriment of the west. Thus a type of cumulative causation process was clearly in evidence.

Thus, the better endowed rural areas in China (those with better infrastructure, greater resources, more developed non-agricultural activities, and closer proximity to urban centres) will continue to grow more rapidly than the other areas and regional inequality in income and development levels will worsen and rural income

distribution will become even more unequal. In other words, regional differences in rural non-agricultural development and in regional income inequalities are likely to perpetuate and widen in rural China. If this trend is allowed to continue, the rising rural income inequality will likely increase social tension in the countryside (Ho, 1995).

Table 16: TVE output (billion Yuan), composition of output, employment and output per employee by Province (1999)

Province	Macro Region	Total output (billion)	% by region	To total TVEs output		Employees (thousand)	Output per employee (Y million)
				Light Industry	Heavy Industry		
BeiJing	E	37	1.06	56.76	40.54	452	0.08
TianJin	E	80	2.29	51.25	48.75	525	0.15
HeBei	E	150	4.29	45.33	54.67	1,531	0.10
Shanxi	M	61	1.75	13.11	86.89	978	0.06
Inner Mongolia	M	14	0.40	42.86	57.14	250	0.06
Liaoning	E	96	2.75	37.50	62.50	783	0.12
JiLin	M	29	0.83	34.48	65.52	321	0.09
Helongjiang	M	35	1.00	42.86	57.14	390	0.09
Shanghai	E	198	5.67	52.53	47.47	1,190	0.17
Jiangsu	E	560	16.03	55.54	44.46	3,319	0.17
Zhejiang	E	407	11.65	63.14	36.86	2,761	0.15
Anhui	M	70	2.00	52.86	47.14	1,134	0.06
Fujian	E	134	3.84	69.40	30.60	1,167	0.11
Jiangxi	M	37	1.06	51.35	48.65	597	0.06
Shandong	E	463	13.25	47.30	52.70	3,233	0.14
Henan	M	166	4.75	45.18	54.22	1,977	0.08
Hubei	M	218	6.24	52.29	47.25	1,817	0.12
Hunan	M	95	2.72	48.94	61.05	1,373	0.07
Guangdong	E	447	12.79	80.09	19.91	5,115	0.09
Guangxi	E	19	0.54	36.84	63.16	329	0.06
Hainan	E	2	0.06	42	58	14	0.14
Congqing	W	21	0.60	42.86	57.14	375	0.06
Shichuan	W	59	1.69	38.98	62.71	902	0.07
Guizhou	W	15	0.43	33.33	66.67	234	0.06
Yunnan	W	22	0.63	40.91	59.09	316	0.07
Tibet	W	0	0.00	n.a.	n.a.	n.a.	n.a.
Shanxi	W	38	1.09	39.4	60.53	256	0.15
Ganshu	W	12	0.34	50.00	50.00	253	0.05
Qinghai	W	2	0.06	37.66	62.34	38	0.05
Ningxia	W	2	0.06	35	65	36	0.06
Xinjiang	W	5	0.14	40.00	60.00	105	0.05
Total		3,494	100.0				

Source: CTVESB (2000).

5. TVE in Yunnan and Zhejiang Provinces (East Vs West)⁶ – a closer scrutiny

5.1 Overview of the townships

The townships are quite contrasting, indicative of their respective locations: the West with its dispersed population and the East with its dense population. KeQiao is only 6% of the area of KeDu but has 2.5 times its population (Table 17). The population of KeQiao is much more highly educated and far less dependent on agriculture than in KeDu. TVEs are far more important to the local economy in KeQiao (31%) versus 2% in KeDu.

Manufacturing is much more important in KeQiao than in KeDu (Table 18). The average size of enterprise in KeDu is much smaller than in KeQiao and has considerably more assets per employee.

Table 17: Two Townships – KeDu (West) and KeQiao (East West) – comparative statistics

Township	Population	Area (Km ²)	Distance from nearest city	TVE contribution to township economy (%)	% of population with high school education or higher	Share of labour force engaged full-time in non-agriculture activity
KeDu	36,825	272	80	2	3	9.6
KeQiao	92,035	16.5	50	31	21	49.7

Source: Statistics Bureau of KeDu and KeQiao Townships.

Table 18: Sectoral share and average size of TVE in KeDu and KeQiao

Sector	Sectoral share in employment (%)		Average number of employees/enterprise		Assets per employee	
	KeDu	KeQiao	KeDu	KeQiao	KeDu	KeQiao
Manufacturing	23	68	4.5	94.5	0.28	7.90
Construction	38	15	14.9	95.5	0.06	17.44
Transport	12	1	1.1	8.9	0.60	76.53
Commercial	16	15	2.2	7.8	0.10	2.32
Services	10	1	3.3	2.0	0.29	102.05

Source: Statistics Bureau of KeDu and KeQiao Townships.

⁶ This section of the paper is based on research carried out in the SHASEA project. The primary focus here was to identify the factors, which influenced TVE development, and to establish if differences existed between the East and West in this regard. For this purpose an investigation was carried out on two townships, one in the West, KeDu, in Yunnan province, and one in the East, KeQiao, in Zhejiang province. The method used was to select 30 TVEs in each township, which were surveyed by means of a closed question questionnaire. In addition, structured interviews were carried out with each of the 60 enterprise managers and also with the chief administrators in each township.

5.2 Characteristics of surveyed enterprises

The surveyed TVE reflect pretty much the official data with similar contrasts between KeDu and KeQiao (Table 19). However, the average size of TVE in the survey in both townships is considerably larger than for the townships as a whole. There are, also, some additional characteristics, which are of interest. The profit per employee in KeQiao is 2.5 times greater than in KeDu; the tax rate is twice as high and retained profits are higher than KeDu. Thus TVE in KeQiao can contribute considerably more to the local administration and at the same time retain a higher proportion of profits to plough back into the enterprise. At the same time the borrowing to asset ratio in KeQiao is much more favourable than in KeDu.

Table 19: Some summary statistics for the TVEs survey in 2002

Variables	KeDu	KeQiao
	Mean	Mean
Gross profit per employee	1.18	2.97
Employees	11	479
Assets per employee(10,000)	2.49	30.1
Tax rate (%)	0.16	0.32
Retained profit (%)	0.37	0.43
Outside township workers (%)	0.28	0.29
Bank loan/fixed assets	0.69	0.27
Travel time to nearest city (hours)	2.26	0.31

Access both in terms of transport and telecommunications are critical to competitiveness and market access. Clearly, KeQiao is considerably better endowed in respect to those two criteria than KeDu. Twice as many people have cars in KeQiao (Table 20) while travel time to a large city in terms of access time is only a fifth that in KeDu. With regard to communication devices, apart from telephones, KeQiao is considerably better endowed with communication and IT devices.

Table 20: Level of `access by enterprises in KeQiao and KeDu

	Telephone	Fax	Computer	Internet	Car
% of enterprises in KeDu	80	10	10	13.3	43.3
% of enterprises in KeQiao	100	83.3	76.6	76.6	90

5.3 Factors affecting TVE start-up and development

Evidence from survey

A linear profit function, according to Reid (1993), of the type $\pi^* = \chi' \beta + \varepsilon$, was estimated based on the data collected from the surveyed TVE's. The dependent variable was gross profit per employee and the explanatory variables were derived from generalised demand and supply functions. A stepwise regression was used to select the included variables and generate the results (Table 21).

Table 21:Coefficients, t-values and levels of significance of explanatory variables

Variables	Regression coefficients	t-values	Significance level
Constant	3.942	1.847	0.071
KeQiao location	2.774	3.059	0.004
Commercial sector	3.840	2.816	0.007
Government intervention index	9.116	3.087	0.003
Equipment age	-0.101	-2.483	0.017
Index of borrowed size	-2.365	-1.754	0.086
Manager's education	-0.302	-1.862	0.069
Manager's experience	-0.084	1.516	0.136
Manager's bonus index	1.557	1.695	0.097
Employees' bonus index	1.30	1.302	0.199

There is a positive and significant correlation between TVE profitability and the KeQiao location. This suggests that various factors contributing to a positive market environment in KeQiao combine to enhance profitability there, in contrast to the weaker environment in KeDu..

The commercial sector generates the significantly highest profit per employee. This sounds reasonable (monopolistic power) within the context of China's special transition and underdeveloped markets, especially in the less developed rural areas of the West, where the infrastructure is not good (In KeDu, for example, it takes two and a half hours to travel the nearest city just 70 kilometers away). This sector is also 'closed' in contrast to the 'open' manufacturing sector and thus sheltered from global competition.

The type and level of government intervention is one of the most powerful forces influencing the TVE success. In the transition environment, where the market mechanisms are not fully evolved and people have a poor conception of market processes, the local government can play a strategic role in removing barriers and uncertainty, in planning, providing information, linking into product and factor markets and gaining access to finances. Local government involvement in the decision making process is mainly restricted to some big decision making such as long-term investment and mergers, not in the detailed managerial activities.

The newer the equipment of the TVE, the more profitable it is. New equipment is more productive, with higher technology and lower maintenance costs.

Contrary to our expectations, the coefficient of "borrowed size" is negative. There may be two possible explanations. First, 'borrowed size' may be confounded with the location variable and second, the index was constructed on basis of information access, only. The technology spillover and the financial access aspects were omitted.

The education and experience levels of managers were negatively related to profitability while bonuses to managers and employees were both positively related to profitability. However, none of these effects were statistically significant.

Views of TVE managers

Managers were asked for their views on the factors, which were perceived to be a positive influence on start-up and growth of TVE and on those factors, which were perceived as obstacles.

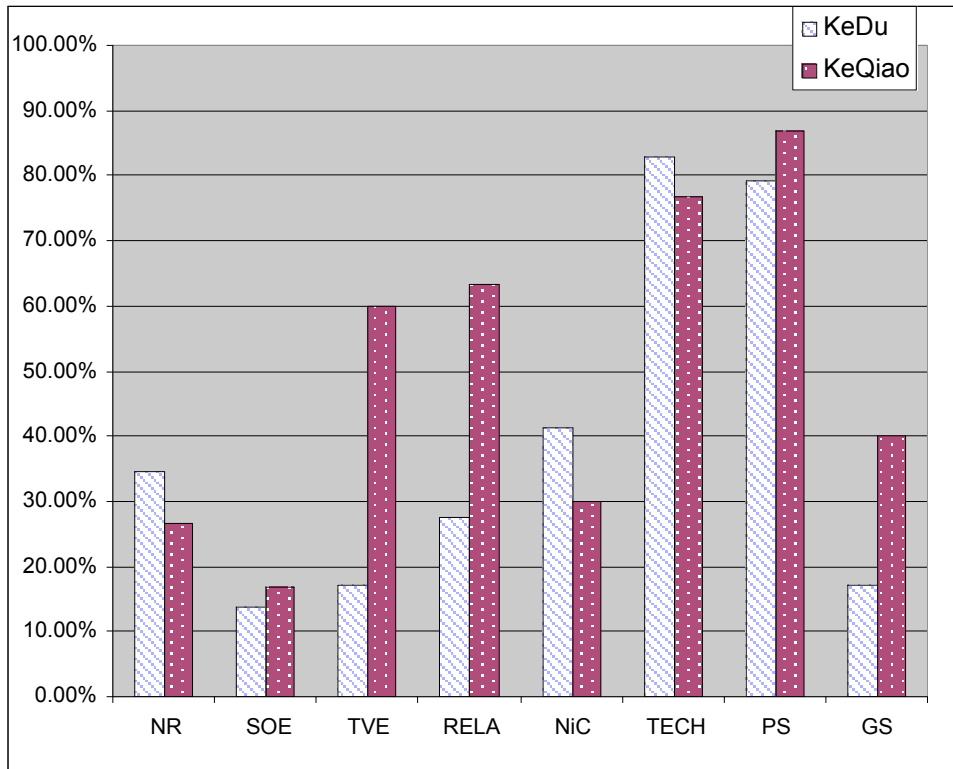
Over 70% of managers in both townships indicated that technical skill and the personal strategy were the most important factors determining success (Figure 4). There was a mixed and differing response from managers in the two townships on other positive factors. KeQiao managers stressed the importance of other TVE's providing technology and know-how spillover and a pool of competent labour. They also stressed the importance of their relationship with the local authority and the importance of the general government strategy. The KeDu managers saw natural resources and niche markets as being important.

Managers in both townships generally agreed that competition coming from the domestic market and imports, unpredictability in the economic environment, the weak legal and institutional framework and the high tax burden and frequent changes in the tax legislation were important obstacles to the development of TVE (Figure 5).

Interestingly challenges in technology development are considered to be much more important in KeQiao than in KeDu, reflecting perhaps the relatively higher level of technological know-how and consequent awareness in KeQiao relative to KeDu. Also, economic and political stability are seen as more important in KeQiao, reflecting the greater dynamic in KeQiao, while at the same time a greater sense of vulnerability to economic and political volatility.

KeDu managers were more concerned about investment finance than in KeQiao as well as transport and communications, reflecting their geographic isolation.

Figure 4: Percentage of managers identifying specific factors as important in TVE development in KeQiao and KeDu



NR= natural resources; SOE= State owned enterprises; TVE= presence of other TVE; RELA= relations with the local authority; NiC= Niche markets; TECH= technical skill; PS= personal strategy; GS= government strategy

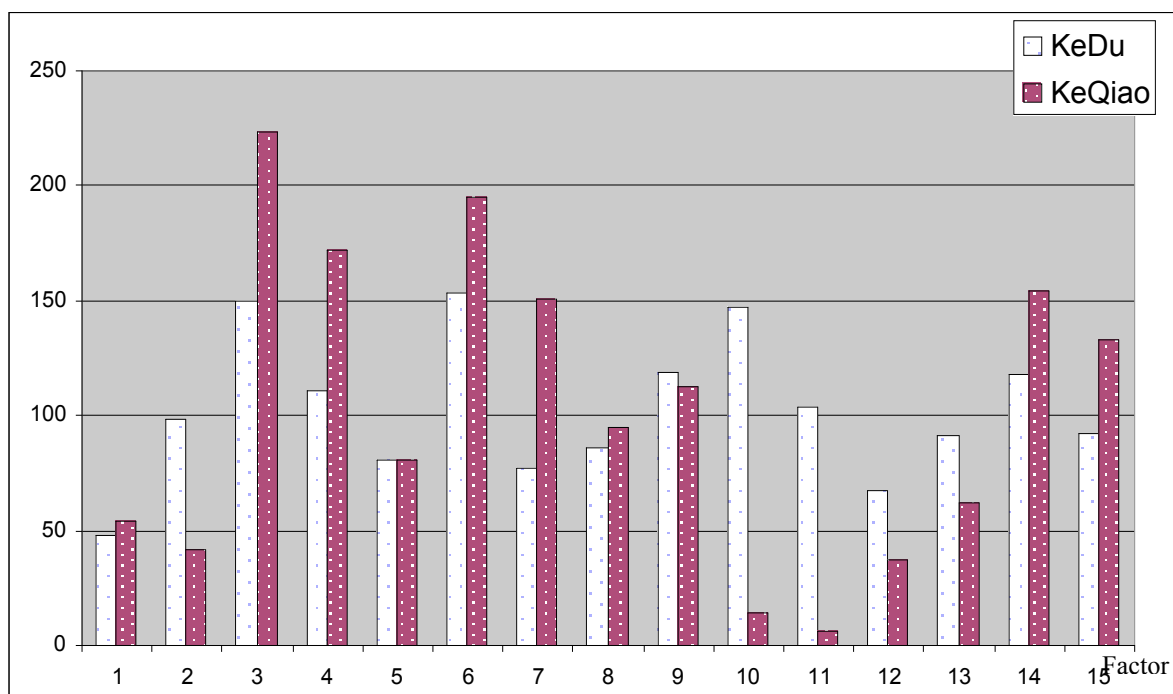
Views of Local Administration

At the beginning of the reform, most of the policies introduced by the central government were indicative, leaving the actual detailed execution to the local government. The local government had freedom to implement specific measures based on the central “guidance”. How to execute the policy and what kind of measures to implement were left to the local government administration. So the guidance policy from the central government supporting the development of TVEs, gets different local government responses.

Kedu township acts in accordance with the instruction of the central government; while the KeQiao township exercises considerably more discretion on certain issues, for example: (i) Increasing the social and political status of the entrepreneurs by soliciting their suggestions on local economic development; (ii) Enhancing the fiscal support to the TVEs, (Most of the TVEs were created as collectives, so the government was involved in the operation of the enterprises including the financial support); (iii) Allowing banks to extend credit to TVEs - the government became the guarantor of the loan to the TVEs; (iv) Increasing the guidance role of the local government. (The local government has a good understanding of the business

development from the macro aspect, so officials in the local government can give the manager helpful advice).

Figure 5: Score of the barriers to the development of TVEs according to the managers.



Note 1: The score of each barrier is the total score given by the interviewees in one place.

Note 2: 1= Access to the capital market; 2=Limited supply of investment finance; 3=Increasing competition from other domestic enterprise and import; 4=Inadequate legal frameworks and institutions; 5= The lack of the function of the banking system; 6=High tax burden and frequent changes in the tax legislation; 7=The technology development; 8=The increased labor cost; 9=The relationship with partners; 10= The transportation system; 11= The communication system; 12= The intervention of the local government; 13= The access to the market demand information; 14= The unpredictable economic environment; 15= he unpredictable political environment.

Over a range of factors influencing TVEs, the KeQiao administration considered all to be “very important” except natural resources, while the KeDu administrator considered all be “very important” except local market (Table 22). This suggests that the TVEs are more dependent on natural resource in KeDu than in KeQiao, which is consistent with the evidence from enterprise survey. In KeDu, the four largest TVEs are Chinese medicine making factories, an ore mining facility, and two coalmining facilities. All these enterprises relied on the abundant natural forest, and mineral resources. KeQiao with its more dense population is more dependent on local markets compared to KeDu, which must rely more heavily on markets external to the township.

Table 22: The influence of different factors on TVEs according to government administrators

Location	National resource	Local market	Infrastructure	Education level of population	Regional policy of centre government	Capital market
KeQiao	2	1	1	1	1	1
KeDu	1	2	1	1	1	1

Notes: "1" = Very Important; "2" = Less Important

The principal obstacles to TVEs development in KeDu include trivial bureaucratic processes for permission to startup and lack of capital investment. In KeQiao township the principal obstacles are considered to be the inadequacy of the legal system and the poor personnel ability.

Contrasting townships: different outcomes

It is clear that there is considerable surplus labour in agriculture in rural China, which is the fodder, which has fed the development of TVE's. Yet the development of TVEs is not homogenous throughout China, as illustrated by the East/West regional comparisons, and in particular by the two townships in relatively underdeveloped and developed regions, respectively, of China.

At the macro level, the two regions had differing rates of development, due to initial conditions of natural resource endowments, population concentration, location and government policy. A cumulative causation process, which had considerably stronger propulsion in the East than the West, has led to very different levels of economic development. The differing environments gave rise to differential investments, both indigenous and foreign direct investments, different rates of market and institutional development and, in particular, differences in the attitude and actions of local authorities in promoting and supporting the development of TVEs and the provision of public services and infrastructure. The environment for TVE development was much more propitious in the East than in the West from both the demand and the supply side: more concentrated factor, intermediate and final product markets. So enterprises in the East are larger, more dynamic, technologically more advanced, have more assets per employee, are more profitable, more dependent on own finances for investment and absorb a larger percentage of rural employment than in the West.

The local conditions and the attributes of TVEs at the local level in the East and West reflect the contrasting situations at the general regional levels. It should be noted, in particular, that the much more active involvement of the local authority in the East, particularly in the support and promotion of TVEs, the higher (double) tax rate in the East, with which the local authority can provide the better public services and infrastructure. It should also be noted the much higher education level in the East, which can generate greater value added and a greater concentration and diversity in the manufacturing sector.

It is not surprising that the econometric work clearly indicated that the location factor (KeQiao) and local government intervention were the two most important factors contributing to profit per employee. This was corroborated by the enterprise managers in KeQiao, pointing to the externality effects of other enterprises and the important links with the local authority. The extent and intensity of engagement of the local administration in KeQiao in creating the best environment and services for enterprise was in clear contrast to the more passive attitude of the KeDu administration.

6. Some Concluding Remarks: What can Russia Learn?

The principal focus of enquiry in this paper is the extent to which Russia can learn from the Chinese experience in addressing the broad problem of rural development. As a backdrop to this question, the importance of the rural economy in the national context and the importance of agriculture in the rural economy were explored for both countries. The current employment situation in agriculture and off-farm in rural areas was also examined. In particular, the Chinese experience in off-farm employment creation was analysed, using some recent survey data from two contrasting rural locations in China. This comparative study can give a fairly clear response to the central question, which was posed. Because of the contrasting situations in the rural economy in these two countries, the physical and socioeconomic structure as well as the historical evolution and policies applied, there is rather little scope for the transfer of policy initiative and know-how between China and Russia.

The rural economy is considerably more important in China than in Russia both in terms of the size of the rural population and the size of the rural economy within the national economy. Although rural income per capita in both countries, on average, are considerably below the national average (a universal phenomenon), there is a complete contrast in the relative incomes from on-farm and off-farm between the two countries: in rural China off-farm incomes are considerably higher than on-farm incomes (the norm internationally), while in Russia the reverse is, perversely, the case.

The average size farm in China is so small that it cannot be expected to provide any more than subsistence living. Farm amalgamation is unlikely given the strong attachment to the land. Therefore, off-farm employment is essential to raising living standards for those engaged in agriculture. From a national point of view China will have great difficulty in being self sufficient in food and indeed given the low level of competitiveness of agriculture due to small farm size and poor levels of mechanisation, China will become increasingly dependent on food imports.

Russia in contrast has, potentially, a very efficient agriculture with its large industrial farms. The current restructuring when taken to its conclusion with financially strong, well mechanised and well managed farms, allied to restructured agricultural input materials and output processing ancillary activities, will create an agriculture sector which will be a major player on the world food market.

Both countries have very significant surplus labour in agriculture. However, the extent of this surplus is greater in China by a very large factor. Nevertheless, the

process of absorbing this surplus into alternative off-farm employment has been quite successful in China, whereas it has basically failed in Russia.

This positive Chinese experience in absorbing surplus labour has been through the vehicle of TVEs, which were initially publicly owned and managed and later privatised. This success has been more marked in the densely populated regions and within proximity of large urban centres, primarily in the East. The challenge for these enterprises will be to adopt new technology and maintain international competitiveness.

The post revolution tradition of fostering non-farm enterprises in rural China has established a solid basis for the rural industrialization process. However, there are a number of other factors, which have influenced the extent and strength of the process. The general hospitable environment for enterprise development created by a stable political system and a positive climate toward private enterprise is the background canvas where other factors have been influential in determining specific local success. Here two factors, in particular have been determinant, the role of local administrations in supporting, promoting and facilitating the development of TVE's both in public and private ownership and the degree of economic concentration in the Township or its proximity to economic concentration. There is a distinct contrast in the pro-active efforts of the township administration in KeQiao toward enterprise development and the more passive efforts in Kedu. The greater concentration of economic activity in KeQiao and its proximity to large urban centres gives it a significant advantage over Kedu with its more dispersed economic activity and its relatively longer distance from a sizable urban centre. The advantage is twofold: local markets for factor inputs and outputs are more developed; and there is significant access to the agglomeration externalities while at the same time not having to endure the negative externalities of concentration.

The challenges facing rural development in Russia are multi-fold. First, the surplus labour issue is similar to that in China, although the magnitudes are completely different. Second, industrialisation in Russia was primarily urban centred. Russia has a very poor history of rural industrialisation. During the socialist period there was very limited industrialization in rural areas apart from agricultural inputs and outputs. Post socialist Russia saw the privatization of local enterprises before they were restructured, lacking finances and unable to compete in a fragmented and institutionally underdeveloped market economy; the most successful enterprises in Russia now are those which started from green field.

Third the transition process is slow and uncertain. While China has retained the strong central and administrative control system and allowed the market system to evolve in a quite systematic way within the stable political and administrative framework, in Russia both the political/administrative and the centrally planned market system disintegrated following the fall of communism. The new political structures are only slowly emerging in Russia. The assignment of responsibilities for economic development, the revenue base and the fiscal discretion between the different levels of administration from the federal to the local level are still unclear. But to the extent to which they are clear, the capacity to discharge these responsibilities is weak. In

particular, the relationship and dialogue between the political bodies and their administrative systems are weak and as yet not fully defined.

Fourth the urban hierarchy in Russia is very weak, with vast territories very long distances from urban centres, with little prospect of creating sufficient centres of agglomeration capable of generating the economies of scale and externalities for competitiveness and industrial growth. There is a poor local environments and weak institutional structures. Industrial developments, which were politically motivated and heavily concentrated in particular regions and sectors, are no longer viable under predominantly market conditions. Given the poor economic finances of government, investment in industry over the short to medium term is most likely to be focused on the large to medium sized urban centres, with rather low level investment in the smaller towns and rural areas confined to agriculture related activities. The relative unimportance of non-agriculture rural Russia implies that it will not immediately register on the political agenda. Rural poverty will be present for quite some time.

Finally, the former state owned enterprises, mainly related to agriculture inputs and outputs have been privatized without first been put on a good technology and financial footing. The new small enterprises in services and industry related to agriculture are experiencing extreme difficulty in a hostile economic and institutional environment. It is unlikely that the private sector will make significant investment in rural Russia without important changes in the economic and institutional environment and substantial public support.

It is unlikely that a scenario similar to the Chinese experience can obtain, where local administrations can establish and grow enterprises. Significant changes in the taxation system would be required in order to facilitate investment by local administrations. However, given the present institutional anarchy, it is unlikely that central government would accept the required level of decentralization. There is also the question of technical competence within local administrations to effectively manage enterprises.

It is difficult to see how the social and economic life of rural communities in Russia can be sustained without significant reorganization and restructuring. A concerted effort must be made to establish viable urban centres, which have the necessary social, economic and recreational services to sustain the rural hinterland as well as attracting industrial investment.

It may be concluded that the present situation in China is due to a combination of physical factors, historical events, particular government actions throughout its recent history and economic forces that have been allowed to emerge. These circumstances are somewhat different in Russia. Apart from the general principal that the public sector must play a very significant role in promoting and supporting rural industrialization, it is unlikely that the Chinese experience can be successfully transferred to Russia. Consequently, there is little of central importance that Russia can learn from the Chinese experience. History cannot be rewritten. Russia must develop its own model of rural development based on the current problems and circumstances.

References

- Blinova, Tatyana and Rusanovsky, Victor. 2000. Economic Policy, Industrial Structure, and Unemployment in Russia's Regions. Working Paper No 01/06, Economics Education and Research Consortium, Saratov.
- Byrd, W. and Lin, Q. 1990. China's Rural Industry: Structure, Development, and Reform, Oxford Univ Press London.
- Central Bank of Russia Federation. 1997, 1998, 1999, 2000, 2001. Annual Report of the Central Bank of the Russian Federation (PDF), http://www.cbr.ru/eng/today/annual_report/
- Central Bank of Russian Federation. 2003. Interest Rates in 2003, http://www.cbr.ru/eng/statistics/credit_statistics/print.asp?file=interest_rates_03_e.htm.
- Che, J. and Qian, Y. 1998. Institutional environment, community government, and corporate governance: Understanding China's township-village enterprises, *Journal of Law, Economics, and Organisation*, Vol 14, 1-23.
- Chen, H. and Rozelle, S. 1999. 'Leaders, Managers, and the organization of township and village enterprises in China, *Journal of Development Economics*. Vol. 60, 529-557.
- Chua, Hwee.Y. and Bauer, John. G. 1996. The Income Distribution China: Regional Disparities, *Applied Economics Research Series--Regional Issues in Economics*, Vol II. Nanyang Business School, Singapore.
- CTVESB. 2000. China Township and Village Enterprises Statistics Book, Agriculture Press, Beijing.
- Gibb, A. and Li, J. 2003. Organizing for enterprise in China: What can we learn from the Chinese micro, small and medium enterprise development experience, *Future* 35(4): 403-421.
- Goskomstat of Russia. 2002. Handbook "Russia" 2002, <http://www.gks.ru/scripts/free/1c.exe?XXXX09R.1>
- Huang, P., and Pieke Frank. N. 2003. China migration country study. Conference paper for *Regional Conference on Migration, Development and Pro-Poor Policy Choices in Asia*, 22-24 June 2003, Dhaka, Bangladesh.
- Ho, S.P.S. 1995. Rural Non-Agricultural Development in Post-Reform China: Growth, Development Patterns, and Issues, *Pacific Affairs*, Vol. 68, Issue 3, pp. 360-391.
- Industrial and Commercial Bank of China. 2003. http://www.icbc.com.cn/e_index.jsp.

Jin, H. and Qian, Y. 1996. 'Public versus private ownership of firms: evidence from rural China', *The Quarterly Journal of Economics*, Vol.113, 773-808.

Kelang Government. 2000. *Kelang Statistics Year Book*, Kelang, Yunan, China.

Ministry of Agriculture China. 1990. Explanations of the Regulation on Township and Village Collective Enterprises of the People's Republic of China. Beijing: China Legal Press,

Marsden, T. 1998. Theoretical approaches to rural restructuring: economic perspectives. In Ilbery, B. (ed.) *The Geography of Rural Chang*. Harlow: Addison Wesley Longman Ltd.

National Bureau of Statistics. 2003. Statistical Communique 2002, February 28, 2003 Beijing.

Naughton, Barry. 1994. Chinese Institutional Innovation and Privatization from Below, *The American Economic Review*, Vol. 84, Issue 2, 266-270.

Qian, Yingyi. 2002. How Reform Worked in China, William Davidson Working Paper, No. 473, William Davidson Institute, University of Michigan Business School, Ann Arbor.

Ody, A.J. 1992. Rural enterprises development in China, 1986-1990, *World Bank Discussion paper* No. 162, World Bank Washington, DC.

Russian SME Resources Centre. 2000. Small business in Russia-2000 statistical report, Moscow. (www.rcsme.ru)

Serova, E. 2003. Evolution of the farm structure in Russia's agriculture: background and perspectives. Mimeo, Analytical Centre AFE, Moscow.

Serova, E. 2004. Russian Agri-Food Economy: Today and Tomorrow. Mimeo, Analytical Centre AFE, Moscow.

Shaoxing Government. 2000. *Shaoxing Statistics Year Book*, Shaoxing, Zhejiang, China.

Tikhomirov, Vladimir. 2000. The second collapse of the Soviet economy: myths and realities of the Russian reform. *Europe-Asia Studies*, March 2000.

Tong, S.P. 1999. 'Production efficiency and its spatial disparity across China's TVEs: A stochastic production frontier approach', *Journal of Asian Economics*, 10: 415-430.

UZUN, V.Y. 2001. *Organisational Types of the Agricultural Production in Russia in The markets of production factor in Russia's agriculture*. Moscow: AFE. 2001

Wang GuiXin. 1997. Population Distribution And Regional Economic Development In China. Shanghai: East Normal University Press,

World Bank. 2003a. Russia Development Policy Review. Report No 26000-RU, Poverty Reduction and Economic Management Unit Europe and Central Asia Region.

World Bank. 2003b. Memorandum of the President of the International Bank for Reconstruction and Development and the International Finance Corporation to the Executive Directors on a Country Assistance Strategy of the World Bank Group for The People's Republic of China, Report No 25141, China Country Management Unit East Asia and Pacific Region.

Wu, Yanrui. 2003. Income Disparity and Convergence in China's Regional Economies" Working paper for Department of Economics University of Western Australia Nedlands, WA6907.

Xu, W. and Tan, K.C. 2001. Reform and the process of economic restructuring in rural China: a case study of Yuhang, Zhejiang, *Journal of Rural Studies*, Vol. 17: 165-181.

Yao, Sgyhue and Jirui.Liu. 1998. Economic Reform and Regional Segmentation in Rural China, *Regional Studies*, Vol. 32: 735-746.

Zhuravskaya, Katherina. 2000. Incentives to Private local public goods: Fiscal federalism Russian style. Working Paper No. 99/15 Economic, Education and Research Consortium, Moscow.

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