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Restructuring Postponed? Large Russian Farm Enterprises ‘Coping with the Market’

MAX SPOOR and OANE VISSER

The continued existence and predominance of large farm enterprises (LFEs) in Russian agriculture during the transition to a market economy is analysed using theories of transaction costs, coordination mechanisms and networks. A comparative analysis is presented of farm restructuring in two, highly contrasting survey regions. That analysis shows that LFEs have undertaken only partial restructuring, which has not led to radical increases in output and productivity. Still, LFEs have kept functioning by adopting a rational strategy of ‘coping with the market’. This entails their integration into processing and retailing, and building up new business (and social) networks while cultivating old ones. The network economy that has thus emerged has enabled them to stay afloat as social and economic units, in a form of ‘paradoxical continuity’.

INTRODUCTION

Analysts of agricultural reform during the ‘transition’ in Russia and the other Eastern European transition countries have focused their attention on the privatization of land, the restructuring of – mostly very large state and collective-farm enterprises – and the liberalization of markets and prices. The first two of these pillars of agrarian reform have seen a great deal of variation in their degree of implementation [*Spoor and Visser, 2001; Lerman et al., 2002; Spoor, 2003; Visser, 2003a*]. At the outset of transition it was, perhaps naively, expected that 40 per cent of Russian agricultural output would be produced by a new, rapidly growing family or peasant farm sector by 1995

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[*World Bank*, 1992]. However, private farms have remained a relatively small sub-sector. Large farm enterprises (LFEs), mostly transformed into joint-stock companies, cooperatives and limited liability companies, are still dominant in terms of land use. However, the share of privately produced output in total agricultural production (by household plots and to a much lesser degree, by private peasant farms) is bigger, namely around 55 per cent in 2001. This article focuses on the LFEs, discussing the reasons for their continued importance, as well as their survival strategy, which is here defined as 'coping with the market'.

It will be argued that LFEs responded in sometimes unpredictable but still quite rational ways to market reforms. Management seldom restructured the farm enterprise, though some of the largest LFEs were split into more manageable units. As this is fundamental for the argument below, 'privatization' is defined as a shift of farm enterprise property from the state to shareholders, employees and/or management. 'Restructuring' denotes the conversion of the formerly state-controlled collectives and state farms into profit-oriented farm enterprises that are viable in a market environment. We categorize the LFEs according their financial state; and their relative adaptation, in terms of acreage and employment, serves as a proxy indicator for restructuring. During the Soviet era, labour and land productivity were low, and collective and state farms were large by international standards. One might therefore assume that downsizing the farm enterprises would lead to more profit-oriented and viable entities. However, it will be shown that size reduction has not necessarily corresponded with higher economic viability.

With the liberalization of prices early in the transition, price signals did influence decision making by LFE management. For example, there was a drastic reduction in use of chemical inputs in arable farming. While LFEs made only relatively limited reductions in land acreage, they did significantly cut their workforce. We will show that these labour reductions were a function of farm profitability, as unprofitable farm enterprises shed the most labour [*Kalugina*, 2002]. Although the majority of LFEs became unprofitable in the 1990s, thousands of loss-making farm enterprises did not sell unused assets, did not go bankrupt or even split up. Instead they kept functioning in one way or another, by postponing payments to workers and suppliers, and reverting to barter, while using old trading networks and setting up new ones. This is defined as a 'coping with the market' strategy, which shows adaptation but no fundamental restructuring towards a market orientation and economic viability. The particular functioning of the Russian LFEs reflects certain characteristics of a 'virtual economy' [*Gaddy and Ickes*, 1998; *Carlsson et al.*, 2001], rather than a real transition to the market. Nevertheless, while the concept of the virtual economy can be applied to Russian industries (and even to forestry enterprises), it is less useful for

analysing responses to reform in the agricultural sector, and could only apply to certain sub-sectoral developments. In understanding the behaviour of LFEs we will use elements of institutional economics, particularly those originating in transaction costs analysis. However, responses to a changing market (and institutional) environment are determined not only by economic considera-



tions, but also by social ones, as we shall see in our analysis of the LFEs' coping strategy.

LFEs follow various integration strategies, most often for tactical reasons. They build up new business and personal networks (and cultivate old ones) and learn to cope under conditions of 'missing markets and institutions'. In order to show this behaviour, we use recent survey data from two highly contrasting regions, namely Pskov *oblast* (in the north-west) and Rostov *oblast* (in the south, located in the northern Caucasus region). The national context of Russian agrarian transformation is the backdrop for this comparative empirical analysis.

Despite privatization of land and other assets and the liberalization of markets and prices, most LFEs in Pskov and Rostov have maintained their status quo and restructured only partially. This lack of farm restructuring is not so much caused by a conservative or anti-reform attitude of the farm management. Rather, it is mainly due to the slow pace of reform in the institutional framework that governs rural markets and the complex responses of LFE management to a highly insecure environment. Some of the most important environmental shortcomings are the malfunctioning legal system and the lack of an accessible rural credit system. The resulting problems are insecurity in transactions and an urgent lack of liquidity. The question of how LFEs cope with insecure, incomplete and volatile markets is therefore crucial.

After the breakdown of the previously dominant state-run associations and other forms of integrated production and distribution channels, and in view of the current institutional gaps, LFEs have begun developing new forms of integration. This means that they are entering into processing and retailing, while there are also financial and industrial groups investing in agricultural production. Horizontal forms of cooperation between agricultural enterprises is also increasing. The strategy of integration is quite successful in the current situation. Our data show a strong correlation between different forms of integration and the profitability of an enterprise. However, most farm enterprises that have processing and retail units made their investments in the early 1990s, when credit was easier to obtain and interest rates were low.

LFEs are also investing in building business (and related social) networks, relying on the trust generated through these networks to cope with the problems of an insecure market economy. These networks are not meant to bypass the market; they are helping the enterprise to create more secure connections to suppliers and market outlets. LFEs with wide personal networks demonstrate the importance of trust. Their contract fulfilment by purchasers is better, and they are more successful in finding reliable new business partners and market information (prices, demand for their goods and quality of supplied products). Finally, both horizontal and vertical networks

are important, as they provide mutual support for the LFEs. Our survey data show that profitable enterprises rely on more forms of mutual support than less profitable ones.

Both strategies are part and parcel of a wider strategy of 'coping with the market', which takes into account extensive lawlessness and other imperfections in institutions and markets in Russia, and the lack of cash with which LFEs must cope. This strategy builds largely on network investments, but also includes some behavioural remnants of the planned economy, specific transitional aspects (such as barter) and more market-oriented behaviour. Nevertheless, the strategy of investing in networks neither precludes LFEs from using market institutions (such as the use of courts to solve contract breaches), nor restrains them from consulting with state departments. Postponing payments and relying on barter transactions is also part of the coping strategy. LFEs must engage in barter in order to survive; some have no choice owing to lack of money. It is therefore no surprise that the less profitable LFEs have a larger share of barter deals than the more profitable ones, which conduct more business using cash. However, the behaviour of LFEs is particularly directed to avoid the rampant problems of low quality of supplies, lack of contract enforcement, payment arrears and fraud. Analysis of LFE behaviour therefore sheds light on a greater dynamism in the sector than is visible at the surface.

Whether the 'coping strategy' will actually lead to a modernized, viable enterprise sector in agriculture is questionable. When markets are imperfect and transaction costs high, profitability (the concept is used here in absence of anything better) is difficult to measure. Few of the LFEs that do relatively well have restructured in terms of their labour force. They maintain to a certain extent their former socialist role as rural 'social units'. Indeed, LFEs in Russia are not just economic entities. During the Soviet era, *kolkhozy* and *sovkhozy* provided social services in the villages, ranging from house construction, to gas and water delivery, schools, hospitals and cultural events. They were social institutions, embracing practically all aspects of social and economic life. As the financial situation of farm enterprises deteriorated during the 1990s, they reduced this social expenditure. In the Pskov region, for instance, all the enterprises surveyed had stopped organizing sporting events, and 14 out of 19 enterprises had reduced support village festivities. However, managers of even the most unprofitable enterprises are trying hard to keep intact the most essential social services, like running water, gas and schools.¹

The profitable LFEs continue a wider range of social services. Several profitable farm enterprises that we visited built houses for their employees or maintained small processing units like bakeries and sausage production for the sake of their workers. In Rostov, a highly profitable LFE in the sample

had renovated the local hospital and maintained a large sports complex. Another farm enterprise still sent its workers on collective holidays to the Black Sea, and helped workers in need with cash or processed products.

Russian reformers and their Western advisers have advocated the transfer of these services to municipalities to free the LFEs from social obligations (and convert them into purely economic entities). In the mid-1990s they were even obliged to do so. However, the rural municipality has often proved unable to assume this responsibility and 'having practically no resources, is constantly asking the leaders of the enterprise to give any kind of support to the school, hospitals, and roads' [Nikulin, 2003: 10]. The situation we found in a village in Rostov is illustrative of the dependent position of the municipality *vis-à-vis* the more profitable LFEs. The local authorities were based in two small rooms of the large two-level office of the nearby LFE. The head of the municipality said, 'The social infrastructure is completely financed by the local farm enterprise. We only organize.' In sum, farm enterprises *de facto* continue to finance at least the most essential social infrastructure. Managers have little choice if they want to prevent (young) people from leaving the village and the farm enterprise from losing its workers.

The following section discusses in more detail the analytical framework with which the 'coping with the market' strategy of LFEs can be understood. The building blocks are, first, transaction costs analysis (in view of incomplete and volatile markets, and 'missing institutions'), and, second, the different coordination mechanisms that govern commodity (and services) exchange, namely, price, authority and network-based transactions. Sociological theories about networks are integrated with the transaction costs framework. The strategy of integration and the formation of (social and business) networks is then analysed. This is an essential element of attempts by the LFEs to diminish transaction costs and avoid risk in a highly insecure market and institutional environment. The subsequent section presents a comparative empirical analysis of the LFE sector in our survey *oblasts*, Pskov and Rostov. The financial state of the LFEs is used to come to a rough categorization of profitable versus loss-making ones. Changes in land and employment are analysed to understand the often still limited process of restructuring, and the reasons why. The final section presents some concluding remarks.

TRANSACTION COSTS, INTEGRATION AND NETWORKS

There is a host of ways to analyse the Russian economy of the 1990s. Contrary to – possibly naive – initial expectations, the transition was not towards a genuine market economy, but more towards a hybrid form with

remnants of both the planned system and markets, or even a 'mutant economy' [Ellman, 2000]. Some authors consider Russia as having a 'virtual economy', in which value-destroying and value-adding enterprises coexist [Gaddy and Ickes, 1998]. This has become an influential concept with which to analyse the continuation of barter and value-destruction in the Russian economy, and more recently, it was even applied to analyse the forestry sector [Carlsson et al., 2001]. Some elements can indeed be used to understand the continued predominance of LFEs. These farm enterprises also have, as we will show later, the tendency to maintain business relations with other large enterprises, to integrate within the commodity chain, and also, albeit to a lesser extent than before, to engage in barter trade. The Russian economy, and in particular the agricultural sector, suffers from incomplete and volatile markets and 'missing institutions', and business operations show high transaction (information, monitoring and negotiation) costs which LFEs are trying to diminish in their quest to 'cope with the market'.

How do Russian farm enterprises do business (carry out transactions) in the still chaotic, non-transparent and insecure market environment? In the transitional economy, old state institutions that coordinated trade have disappeared. However, they have not been sufficiently replaced by new market-oriented institutions. One of the most serious institutional gaps and major problems of the current Russian economy is the lack of a sound legal basis for business practices. Under the old system, legal institutions were highly permeable. Laws bent to the political winds, as did the courts. The lack of proper institutions brings with it high risks and uncertainty, such as problems of late payment, defaults and barter, all raising transaction costs. Equally so, the policies affecting the agricultural sector have been insufficiently consistent. Particularly in the 1990s, the power of local authorities to determine the policy environment (whether liberal or interventionist) was very wide indeed.

Contract infringements in terms of non-payment causes a sharp increase in three kinds of transaction costs:

- costs connected with the collection of data on the reliability of partners (*ex-ante* transaction costs, known as information costs);
- costs of imposing sanctions against dishonest and unreliable business partners (*ex-post* transaction costs), including monitoring costs, and time to appeal to courts and to visit debtors;
- lost profit and non-efficient allocation of resources (e.g., reduced income when clients do not pay on time).

According to institutional economics, which focuses on the transaction costs of economic activities, one can distinguish three governance or coordination

mechanisms for economic transactions. These are based on price (market), authority (hierarchy) or, in-between these extremes, on networks/relational contracting (trust). Institutions (among others, an enforceable legal system) govern transactions. Market transactions are conducted primarily on price signals. The mechanism of authority comes into play when enterprises integrate with other market participants, and thus replace market transactions with internal (in-company) transactions. The exchange then becomes based on the authority of (for instance) the head of the new holding or company. Finally, an alternative governance mechanism for economic transactions is building trust through networks. All three mechanisms could well be intertwined. However, we will show that when the market does not function effectively, LFEs have a strong incentive either to integrate or to 'invest' in networks. As stated above, this behaviour can be seen in the re-emergence of integrated commodity chains and the establishment of social and business networks, as the basis of a 'network economy' of LFEs.

Integration

As transaction costs are high, integration within agribusiness chains emerges as a strategy to reduce costs, in order to survive and recover. This form of adapting to, or coping with, the market is understandable since the LFEs lack a sufficiently developed market environment and infrastructure. Old ideas of centralization and economies of scale from the Soviet era are also being replicated in a more market-oriented environment. As we focus here on the strategies of LFEs, we mainly investigate cases of (forward) integration by them (e.g., a LFE enters into processing or retail). Processing enterprises or large trade companies are also integrating (backwards) into farming, but these cases are not included in the surveys presented here.

Although an integrated production and marketing chain incurs marketing costs itself, these costs are likely to be less than the costs otherwise incurred for monitoring and enforcement of contracts and direct losses due to delayed payment or non-payment. As such, the 'effective price' achieved through direct sales can be some 20 per cent higher than that achieved through the standard marketing channel (such as sales to a processing plant). This was especially the case in Russia in the mid-1990s when payment arrears were a chronic problem [*Melyukhina and Khramova, 2000*]. In most cases, penetration into processing (and also retailing) is, in the end, more profitable than sales through other channels. However, some aspects of on-farm processing have become unprofitable owing to declining output. Even so, processing on-farm can have certain benefits, such as increasing the bargaining position of LFEs in relation to the processing industry.

Another reason for forward integration, especially into retailing, is that it provides firms with cash earnings. In general the following rule applies in

contemporary Russia: the farther away from the consumer a firm is located in a commodity chain, the less it has access to cash. For LFEs, many of which are (officially) loss making, unregistered cash is important. Furthermore, integration into processing and retail can reduce cash expenses. By starting a bakery, for instance, a LFE can more easily pay its employees in kind, saving scarce cash for investments. However, some extreme forms of integration can amount to a shift away from the market towards autarky.

The decision to integrate can also be (partially) motivated by a desire to continue the social role of the enterprise, such as by providing food from own processing units to workers and shouldering responsibility for providing employment for village residents. Several managers of profitable farm enterprises in our survey indicated with pride that they had managed not to fire employees despite falling production or (more seldom), increased productivity due to machinery, because they transferred agricultural workers to new processing units.² This behaviour confirms that the heirs of the Soviet *kolkhozy* and *sovkhozy* retain an important social function. Therefore, as part and parcel of the ‘coping with the market’ strategy, integration can originate from economic arguments or from attempts to maintain some of the LFE’s social functions.

Networks and Network Capital

The literature on the Russian economy devotes quite some attention to processes of integration, both within the economy as a whole and within agriculture in particular, although empirical research is almost lacking [e.g., *Ioffe and Nefedova*, 2001]. Attention to network building is rare, though networks are an effective option for dealing with the problems of a ‘transitional market’.³ Within such a context, networks of economic actors, whether enterprises or individuals, are potentially vital as they foster trust between partners. We will show, based on empirical data, that reliance on networks indeed forms an important element of the ‘coping’ strategy of LFEs.

Integrating theoretical insights from institutional economics with sociological theories of networks enables us to outline several related functions of networks, which are important in the context of business transactions. First, networks can reduce transaction costs [*Williamson*, 1986]; second, they can provide channel market and confidential information [*Granovetter*, 1985; *Uzzi*, 1997];⁴ and third, they provide mutual assistance [*Radaev*, 2000]. Processes such as establishing trust, ranking of businesses and forming reputations are important elements of an integrated, rational strategy that LFEs follow in order to cope with a highly insecure market, institutional and policy environment. Integration and the formation of (social and) business networks are needed to effectuate such a strategy. Networks are not just a

'hybrid form' of governance, between market and hierarchy; they can be more efficient than these other mechanisms, for instance, when there is a need for flexibility [Williamson, 1991]. This is certainly the case in the current Russian economy, which is characterized by volatile prices, cash shortage and an insecure and unreliable legal system.

Doing business within Russia is risky not only because of the insecure legal system, with all of its repercussions, but also because of the general lack of 'trust in society'.⁵ Lack of trust (or distrust) is pervasive in Eastern Europe and the former Soviet Union [Sztompka, 1995]. During the communist era, 'to "beat the system", to outwit authorities, to evade public regulations, rules and laws [became] one of the widely recognised virtues' [Sztompka, 1995: 90]. Trust in laws and between actors in the economy was further reduced, during the period of market reforms, as law enforcement became ineffective and policy and laws were often changed before they could be implemented.

The next section applies our analytical framework using data from surveys in Pskov and Rostov *oblasts*. In short, it shows a positive correlation between profitability, integration and network building.

RUSSIAN AGRICULTURE: COMPARING PSKOV AND ROSTOV

During 1992–98, agricultural production in Russia declined countrywide, in particular owing to continued contraction in LFE output. Only after the financial crisis of 1998 did the agricultural sector revive, benefiting primarily from the drastic devaluation of the rouble and increased demand for domestically produced agro-industrial products. Individualized agriculture – in other words, agricultural land in individual use (private peasant farms and household plots) – expanded rapidly in the early 1990s, but showed slower growth from the mid-1990s onward [Lerman, 2003]. Actually, the emerging private peasant farm sector remained small throughout the decade.⁶ Apart from this sub-sector of private farms, a largely bi-model or dual agricultural structure emerged, with LFEs on the one hand and small-scale (subsidiary) household plots on the other.

This can also be observed in the two regions of Russia, Pskov and Rostov, that we compare in this article, where our farm enterprise surveys were undertaken. However, the severity of the slump in large-scale farming, as well as the importance and composition of individual farming, differ significantly between these two extremes of the Russian agrarian spectrum. Before we turn to these differences, we first present a brief introduction of these regions.

Pskov *oblast* is part of the macro-region of Northwest Russia, which falls in the area of insecure climatic conditions for agriculture. Moreover, Pskov is part of the northern non-*chernozem* (black earth) zone, with relatively

infertile soils. The agricultural sector in Pskov *oblast* is, like the rest of Northwest Russia, dominated by mixed livestock systems and consists of dairy farming, feed raising and some vegetable and flax production.

While Pskov is one of Russia's poorest agricultural areas, Rostov – the other survey area in our analysis – is considered one of the country's most important food producing regions. Rostov has fertile soils on the banks of the Don River, and, thanks to its southern location, it has one of the country's longest growing seasons. Main crops in Rostov are grain and sunflower. Despite its favourable natural endowments, agriculture in the Rostov region did not escape the general decline in Russian agriculture. But compared to Pskov, the situation is much brighter.

Neither region practises the policy of strong intervention in agriculture, which is still prevalent in several of the conservative, 'red belt' regions in the fertile central *chernozem* area. However, agricultural policy in Rostov is more liberal, with adherence to market-oriented reforms. In Pskov budgetary pressure seems to be the main reason for the state's lack of widespread involvement in agriculture [*Serova and Khramova, 2001*].

The State of Agriculture in Pskov and Rostov

The initial conditions in Pskov and Rostov at the start of reform led to some important differences in the current state of agriculture in the two *oblasts*. First of all, the slump in large-scale farming was much more severe in Pskov than in Rostov, or in Russia as a whole. The labour-intensive farming activities dominant in the Pskov region (livestock farming and vegetable growing) became unprofitable for the LFEs in the 1990s, and were taken over largely by the private sector (Table 1). One-third of all agricultural land in this region has been taken out of production since 1991. The private (individualized) sector has become dominant in terms of share in production, and most LFEs are in dire straits. Only 32 per cent of the LFEs in Pskov were profitable in 2000 [*Upravlenie Pskov, 2000: 119*].

In Rostov the LFE sector did not fall to such depths as in Pskov. Regional agriculture in terms of both output and productivity recovered significantly after the financial crisis of 1998, due to increased profitability and competitiveness of grain and sunflower production. The upsurge can also be partly, but not wholly, attributed to favourable weather conditions. In Rostov more than two-thirds of the farm enterprises were profitable in 2000 [*Goskomstat Rostov, 2002b: 15–16*].

Another important difference between the regions is the composition of the individual sector. The share of individualized farming (both household production and private farming) in total agricultural land has increased in both regions from a few per cent (held by households in the early 1990s) to

TABLE 1
 SHARE IN PRODUCTION BY TYPE OF PRODUCERS (1990–2002)
 (IN PER CENT)

Year	Russia			Pskov			Rostov		
	Farm Enterprises	HH Plots	Private Farms	Farm Enterprises	HH Plots	Private Farms	Farm Enterprises	HH Plots	Private Farms
1990	73.7	26.3	0.0	73.3	26.7	0.0	n.a.	n.a.	n.a.
1996	49.0	49.1	1.5	27.3	71.1	1.6	49.5	46.4	4.1
1997	46.0	51.1	2.4	27.3	71.0	1.7	38.7	56.3	5.0
1998	40.6	57.3	2.1	25.9	71.9	2.2	31.2	63.5	5.3
1999	41.0	56.5	2.5	20.9	77.1	2.0	36.9	57.1	6.0
2000	43.3	53.6	3.0	23.0	75.0	2.0	42.2	49.5	8.3
2001	43.9	52.4	3.7	—	—	—	45.5	45.3	9.2
2002	42.2	53.8	4.0	—	—	—	—	—	—

Sources: Goskomstat Rossii [1999, 2000, 2003]; Statkom SNG [2000]; Goskomstat Pskov [2000]; Upravlenie Pskov [2000]; and Goskomstat Rostov [2002a]. For 2000–2002 data for Russia were taken from the US Department of Agriculture (www.ers.usda.gov).

some 23 per cent in 1999. This was higher than the Russian average (see Table 2).

However, although the total amount of land in the individualized sector is comparable in the two regions, there is an important difference. In Pskov, land outside the LFE sector is largely held by households (19.3 per cent), while the share of land used by private farms was still insignificant (3.7 per cent) and even declining in 1999. The low share of land held by private farms in Pskov is also reflected in their low share in total production, which has not increased since 1998 (Table 1).

Rostov displays quite a different composition with regard to land held for individualized agriculture. Most land outside the LFEs is cultivated by an expanding private farm sector (15.8 per cent), while household plots occupied only half this share (7.9 per cent), in 1999. The average size of private farms in Rostov (76 ha) and other southern regions (112 hectares for the Eastern Volga area) is well above the Russian average of 55 hectares [*Goskomstat Rossii*, 2000: 49]. Moreover, private farms are quickly becoming larger. From 1998 to 1999 the average size increased from 68 to 76 hectares in Rostov [*Goskomstat Rostov*, 2000a: 64], and the share of private (peasant) farms in total agricultural land continued to increase after 1999 [*Goskomstat Rostov*, 2002a: 28]. In interviews also conducted during the LFE surveys, private farmers talked about plans to expand, while authorities stated that these private farms had to increase in size or merge in order to become economically viable.

Though the LFEs remain predominant in Pskov, the region's farming sector is also characterized by the presence of relatively small private farms of around 20 to 50 hectares with few prospects for expansion. These private farms differ little from large household plots which can be up to 10 hectares in Pskov. Quite a number of private farmers have even given up their status as private farmers, returning to household plot production, largely for subsistence needs. In Rostov, the private farm sector (apart from household plots) is two-tiered, consisting of small and medium-sized family farms, as well as a group of commercially run farms ranging in size from several hundred to one thousand hectares. With regard to the private farm sector, Pskov is more representative of trends in Russia than is Rostov. The number of private farms in the Russian Federation has remained stable during the past few years, albeit with an increase in average size (see note 7).

Within Russia's still largely bi-modal agrarian structure, the LFE sector remains dominant in its share of land, and it still focuses on (staple) crop production and extensive animal husbandry. This is confirmed in the researched regions, of Pskov and Rostov. The LFEs have even regained some of their lost output share countrywide since the late 1990s, which was also stimulated by the emphasis under Putin on large-scale production and the

TABLE 2
 AGRICULTURAL AND ARABLE LAND HELD BY TYPES OF PRODUCERS (1998–99) IN PER CENT

	Russia				Pskov			Rostov		
	LFEs	HH Plots	Private Farms	Other	LFEs	HH Plots	Private Farms	LFEs	HH Plots	Private Farms
1998 Agricultural Land (Arable Land)	83.7 (88.2)	5.4 (5.0)	6.6 (6.8)	4.3	72.4 (80.9)	18.4 (14.8)	4.0 (4.3)	77.1 (79.8)	7.8 (4.1)	14.3 (16.1)
1999 Agricultural Land	81.9	6.0	6.9	5.2	76.9	19.3	3.7	75.7	7.9	15.8

Note: The percentages in the table are shares of agricultural land; figures in brackets show the share of arable land, which is slightly different.

Sources: Goskomstat Rossii [1999, 2000]; Statkom SNG [2000]; Goskomstat Pskov [2000]; and Goskomstat Rostov [2002a].

overall recovery of the sector. However, whether this recovery is sustainable is questionable (see Table 1). The household plot sector is directed mainly at subsistence and petty commerce, and its potential for growth seems to be exhausted. The newly emerging private peasant farm sector is still relatively small, although in a region such as Rostov its growth is substantial and its share of land is higher than the national average.

Restructuring within LFEs

This section focuses on the internal changes within LFEs (or their lack) and shows that the recent recovery of the LFEs has taken place despite surprisingly little change in their structure. Our empirical data are based on two surveys carried out during 2000 and 2001 in Pskov and Rostov using production data from the previous years, as the accounts of that year were not yet complete. The surveys were carried out by one of the authors (Visser), in cooperation with scholars from regional agricultural research institutes. The survey in Pskov ran from mid-September to mid-November of 2000. In Rostov the survey was conducted in the same period a year later. It is a disadvantage that the point of measurement differs for the two regions. However it was considered more important to monitor the survey closely and to carry out personally part of the survey interviews, which included qualitative interviews and farm visits. For indicators that might change quickly, we compensated for this disadvantage by checking the survey data with trends in regional and district-level data. No drastic changes were recorded for the main indicators in Rostov from 2000 to 2001, contrary to, for instance, the period from 1998 to 1999. Within each region, several districts were selected, including at least one peri-urban district, around the provincial capital and a district on the region's periphery. In Pskov, farms from two districts were examined. In the larger Rostov region, which is much more diverse in terms of soil fertility and climate, a larger number of districts was included, namely ten, three of which were peri-urban.⁷

In total, the survey consists of 43 LFEs (19 in Pskov and 24 in the larger Rostov region).⁸ Several criteria were used for the selection of farm enterprises. The sample had to reflect regional figures on profitability of the farm enterprises, the production profile and ownership structure.⁹ At each LFE two staff members were interviewed; a manager dealing with external contacts (normally the general director, commercial director or main economist) and a farm specialist (an economist, main accountant or main agronomist).

To compare differences in strategies of weak and strong LFEs we divided them into four groups according to financial performance: medium/high profit, low profit, low losses and medium/high losses.¹⁰ There are some methodological shortcomings associated with use of this indicator. Because

TABLE 3
MAIN CHARACTERISTICS OF LARGE FARM ENTERPRISES PSKOV AND ROSTOV (2000–2001)

Financial State (rank)	Financial State (description)	No. of Surveyed Enterprises		Profit (Loss) in Roubles	Profit (Loss) per Employee	Total No. Employees
		Pskov	Rostov			
1	Medium/high profit	3	9	4,300,000	10,644	404
2	Low profit	3	10	790,000	4,072	194
3	Low losses	10	3	–100,000	–917	109
4	Medium/high losses	3	2	–384,000	–7,385	52
Total		19	24			

Note: Profit (loss) per employee = average per category profit (loss)/ average per category of employees in 2000–01.

Source: Own survey 2000/2001.

of regional subsidies, unregistered (barter) deals and tax evasion strategies, profitability figures are not as straightforward to interpret as in Western economies. However, many indicators are difficult to use within the Russian transitional context,¹¹ and the one we chose is not devoid of these problems.

Profitability is useful for the purposes of this article, as a crude measure of the overall financial state of a farm enterprise. Nevertheless, high profitability does not necessarily indicate high levels of efficiency. It might well be more a reflection of a privileged tax position or favourable deals, due to close connections with important business partners (or regional authorities). For the lowest category, the losses average 7,385 roubles per worker, which is equivalent to 246 euros or 300 US dollars. For these unprofitable LFEs the average wage per month was only 560 roubles or 19 euros. Thus, the average loss in this category of LFEs, which does not seem high by Western standards, represents just more than the enterprises' yearly wage bill, which is quite substantial (see Table 3).

Changes in Landholdings

The size of LFEs did not decline radically during the 1990s. Actually, the reduction in acreage of both agricultural land and arable land was relatively small in our surveys. Agricultural land declined by less than three per cent (see Table 4). A World Bank survey carried out in five Russian regions (Pskov, Rostov, Orel, Novosibirsk and Saratov), showed that farm size declined on average by about 15 per cent, from 9,500 to 8,000 hectares,

TABLE 4
LANDHOLDINGS OF LARGE FARM ENTERPRISES PSKOV AND ROSTOV

Financial State	Region	Agricultural Land			
		Acreage 1991 (ha)	Acreage 1998 (ha)	Acreage 2000/2001 (ha)	Change since 1991 (%)
1	Pskov	3,403	3,399	3,399	- 0.1
2		3,415	3,333	3,323	- 2.7
3		3,514	3,125	3,001	- 14.6
4		4,215	4,101	4,064	- 3.6
1	Rostov	8,206	8,106	8,106	- 1.2
2		6,162	6,157	6,174	0.2
3		6,058	6,058	6,058	0.0
4		6,669	6,669	6,669	0.0
	Average	5,488	5,353	5,322	- 2.7

Note: The total percentage change is taken as the average of the changes measured in each category for the two survey regions.

Source: Own survey 2000/2001.

during 1990–93 [Brooks *et al.*, 1996: 29].¹² From 1995 to 1998 the acreage of Russian farm enterprises declined by one per cent for the most profitable, to five per cent for the weakest, least viable ones [Uzun, 1999]. The land acreage held by LFEs fell more sharply, by about 25 per cent in the same period [Lerman *et al.*, 2002]. But this was also caused by bankruptcies of LFEs and thus does not indicate a persisting correspondingly sharp decline in LFE acreage.

In some cases (especially in the pro-reform Nizhnii Novgorod region and other regions where the model was applied), farm size declined because *kolkhozy* and *sovkhozy* were split into several (mostly two or three) smaller scale successors.

The size of most LFEs declined slightly because some entrepreneurial employees have taken out land shares to start private farming.¹³ However, since the first phase of land reform (up to 1993), LFE size has not declined substantially [Serova, 1999: 23; Uzun, 1999: 43–5]. Our survey data also show that LFE size remained largely unchanged after 1998. The survey carried out by Serova and Khramova in Rostov and Pskov (and, in addition, in the black earth Tambov region) revealed that the acreage of about half of the 31 surveyed LFEs remained stable over the last seven years [Serova and Khramova, 2001: 9–10].

An expectation during reform was that downsizing would increase the profitability of the enterprises. However, there is no evidence that those LFEs that are the most market-oriented, and the more successful ones, are also the most downsized enterprises. In Pskov most downsizing took place within the group of unprofitable enterprises, reflecting a perfectly rational decision. The land in Pskov *oblast* is of poor quality, and only the more fertile areas can be used for crop production (and even then requiring some fertilizer or manure). Other land is used for fodder crops or as pastures. The weakest LFEs in Pskov, most likely also those located on the poorest lands, lack the finances to buy mineral fertilizers, and have little manure, which is a low-cost fertilizer substitute, since their herds have declined most drastically. They have therefore shed these poor lands.¹⁴

In the Rostov region, where the soils are fertile, farm enterprises can continue production for years without investing in fertilizers. Thus, farm enterprises hoard land for current (extensive) production or for the future.¹⁵ If they shed land it is mostly because private farms are established (and shareholders sell shares to these farmers), as happened with one of the LFEs, influencing the average acreage of the first financial state category. Some of the profitable LFEs also buy land from bankrupt or near bankrupt neighbours, and thus further increase (or stabilize) their size. One of the profitable LFEs in Rostov increased its agricultural land by four per cent. Serova and Khramova [2001: 9–10] also observed that surveyed LFEs increased their

acreage. If LFE acreage decreased, it was most likely because land was left unused or because employees were taking out land. Land taxes are negligible, land markets are fragmented or even 'missing' and prices for land are low, hence farmers have no incentives to sell.

Changes in Employment

The decline in the number of employees on LFEs was much stronger than the drop in land size (Table 5). For the farm enterprises surveyed in both regions employment fell by more than half (55 per cent). As can be expected, this reduction in employment is less than the decline in output, which dropped by around 65 per cent between 1990 and 1999.¹⁶ On one hand, the LFEs are social units that 'take care' of their employees as much as possible. On the other hand, taking into account the enormous de-capitalization of the LFEs, more shedding of labour would not be economically sensible in their quest to survive and recover.

In Pskov, production on LFEs declined by 74 per cent. In Rostov, since 1998 the LFEs have recovered production more quickly than the overall growth in the country as a whole.¹⁷ Employment fell most drastically in the least profitable farm enterprises. Furthermore, the reduced number of workers in these enterprises is not so much a result of firing surplus labour. Rather, it is caused by the flight of the most capable workers, who leave in search of jobs in more successful enterprises or outside the agricultural sector. These workers leave behind weak enterprises with a disintegrated workforce of old, drunk or unmotivated employees.¹⁸

All enterprise directors attributed high value to keeping their workers' collective intact as much and as long as possible [*Visser*, 2003b], though only the most profitable enterprises are actually capable of doing so. Even directors in the most profitable enterprises, which have also experienced serious drops in production and, at best, recovered production to just above

TABLE 5
AVERAGE NUMBER OF EMPLOYEES IN LARGE FARM ENTERPRISES (2000–2001)

Financial State	1991	1998	2000/2001	Change since 1991
1	618	498	404	-29%
2	397	279	194	-55%
3	252	127	109	-61%
4	274	120	52	-78%
Total	366	240	184	-55%

Note: The employment data are somewhat different from Table 3. The reason is that here only those LFEs that also had data from the other years were included.

Source: Own survey 2000/2001.

1991 levels, are reluctant to reduce their labour force. In interviews, directors stressed their responsibilities towards the workers and their families, and their unwillingness to fire workers (see also Uzun [2002]). Such decisions and attitudes are completely in keeping with the Russian context. Farm enterprises are still densely interwoven within the rural community, and social unrest caused by massive lay-offs would likely hinder economic progress of the LFE [Visser, 2003b]. Dismissed workers are expected to continue to be a cost to the LFE, because it often takes care of village social services or because managers expect fired workers to steal what they still regard as theirs.

This overview of changes at the country, regional and enterprise levels shows that LFEs remain dominant in terms of marketed output, particularly of commercial crops. The role of private farms is still limited and the expansion of household production, which has taken over the production of labour-intensive crops and livestock, has possibly reached its limits. The LFEs have risen as a phoenix from the ashes since the late 1990s, slowly regaining market share. This development has been supported by the Putin administration, which has emphasized the revival of LFEs [Wegren, 2002]. Yet, the continued and reinforced domination of the LFE sector occurs with insufficient restructuring towards viable market-oriented farm enterprises. These farm enterprises 'cope' with the market in a rational strategy to survive, in a near 'paradoxical continuity'.

THE 'COPING' STRATEGY OF LFEs IN PSKOV AND ROSTOV

LFEs, especially in the more profitable ones, have remained large in terms of acreage and numbers of employees. Their business behaviour is also still guided by a supposed 'general law' of economies of scale, in many respects. When a manager of a highly successful farm enterprise in Rostov, with more than 10,000 hectares of land was asked why his farm was more successful than other enterprises in the district, he answered 'because we are larger'. Managers of some of the less successful farm enterprises in Rostov attributed their problems to the fact that they were 'quite small' compared to others (though they still had 5,000 to 6,000 hectares). Why the production of LFEs that are twice their size would be more 'efficient' was not made clear. One reason that has clear economic rationality is the ability of larger enterprises to start processing more effectively based on their own production.

In the initial years of reform a process of what we might call diversification of market channels took place. State companies, formerly tied together within associations, were privatized and subsequently these associations broke up. Some LFEs previously delivered their output to an association that was responsible for the whole procedure of storage, processing, and wholesale

and retail sales. In such cases, the marketing channel consisted of only one company. After the reforms such marketing channels were largely discontinued (at least officially). Food products now pass through several companies before reaching the consumer. Partly this has led to increased competition, as privatized regional or district-level purchasing firms started to buy up produce outside their old purchasing areas or new trade companies were established.

Recently a trend began towards (re)-integration, but based on principles other than those of the Soviet era. Basically two kinds of (vertical) integration can be distinguished that affect LFEs. The first is forward integration by the farm enterprises themselves, for example, when a farm enterprise starts processing or wholesale commerce activities. Second is integration in which farm enterprises are taken over by other companies, most frequently privatized processing and wholesale companies. In recent years investment groups from outside the food sector have also invested in the food sector in some regions, mainly in Moscow *oblast*. Finally, some (more interventionist) black earth regions' authorities have had a strong hand in integration processes, and even have personal stakes in agribusiness holdings that incorporate farm enterprises and other companies.

Forward Integration in Processing and Retailing

LFEs can go for partial integration (for example, processing but not selling) or complete integration, carrying out the whole process from production to retail sales without any intermediate market transactions through other companies. Construction of storage facilities by farm enterprises can also be seen as a form of forward integration. Though LFEs generally have simple storage facilities to keep their products for a short period, some have cold storage, enabling longer storage of perishables. As such, they can store their harvest during the winter and sell it at the end of winter or in spring, when prices are higher. Further, forward integration into processing or retail sales is a way to increase the returns for agricultural produce. Countrywide, by 1997, at least 25 per cent of all LFEs had their own processing units for some of their products [Ushachev, 1997: 49]. In 1997, the share of on-farm processing as a percentage of total processed output increased to 48 per cent for meat, 14 per cent for milk products and 15 per cent for wheat flour. It is predominantly the profitable enterprises that have constructed such facilities (see Table 6). The penetration into retailing can take the form of the purchase of shops or kiosks. Yet in most cases such integration has meant simple forms of direct marketing, such as selling from trucks or at marketplaces. Here again, it is almost exclusively the profitable enterprises that employ such integration.

The integrationist tendencies of farm enterprises are thus guided not only by the search for higher profits by keeping trade, storage and/or processing

TABLE 6
STORAGE, PROCESSING AND SALES CAPACITY OF LARGE FARM ENTERPRISES

Financial State	Cold Storage			Processing				Own Selling Outlets		
	Yes	No	(N)	Yes	No	Missing	(N)	Yes	No	(N)
1	7	6	13	8	3	2	13	6	7	13
2	4	8	12	3	9	0	12	2	10	12
3	3	10	13	2	9	1	13	0	13	13
4	0	5	5	0	3	0	3	1	4	5
Total	14	29	43	13	24	3	43	9	34	43

Source: Own survey 2000/2001.

margins within the enterprise. The specific economic circumstances of the Russian economy (especially the cash shortage, payment arrears and continued social functions of enterprise) give farms diverse reasons to integrate into the commodity chain.

Backward Integration of Procurement Companies in Agriculture

Backward integration is more rare. The most remarkable variant of backward integration is the involvement of oil companies in grain wholesaling and also in production to some extent. There are some cases of backward integration by processors to production (especially in and around Moscow) and some successful large retailing companies that have bought food processing factories or units.

Investments made by companies outside the food sector have also stimulated integration. In the latter 1990s the so-called financial-industrial groups, such as Incombank, Menatep and Alpha Bank, undertook investments in the food sector. These were, in most cases, focused at the level of processing and distribution. Such investments have promoted the creation of vertically integrated systems that include not only food processing, but also the supply of raw materials and wholesale of processed products. Nonetheless, they are often more a reflection of a particular type of investment portfolio management than of a specific form of integration.

In 2001, more than 90 large and medium-sized agricultural holding companies were recorded in 27 regions. The land held by these holding groups in 2001 comprised only 1.5 per cent of all agricultural land. However in some regions, such as Belgorod and Orel, this share is significantly higher, up to a third of total land [*Gerasin et al.*, 2003: 164]. In Rostov several agricultural holding companies exist, of which the largest or most well known is Yug Rusi. This agro-holding started in 2000 with investments in agriculture and already incorporated 14 LFEs by 2001 [*Gradinarova*, 2002].¹⁹ In the Pskov region, as in most of the less fertile areas, there are no large agricultural holdings, but there are some sporadic cases of backward integration by processors.²⁰

In the fertile black earth area, regional authorities have played an important role in the process of integration, especially in the grain sector (such as in Orel, Belgorod and Ulyanovsk). However, it has been argued that structures resulting from integration that is strongly pushed (or initiated) by governments are less efficient than those emerging from a spontaneous process within the market as described above.

Although there are clear benefits of integration for farm enterprises, the construction of processing facilities and marketing outlets stagnated during the 1990s. Outside the Moscow region and the provinces with strong state policy stimulating integration, farm enterprises are unlikely to be incorpo-

rated into integrated food chains. The weaker farm enterprises are also excluded from integration, since integration processes are initiated by processors or outside investors, which tend to focus on the largest, most profitable enterprises [Ioffe and Nefedova, 2001]. Furthermore, our own survey data show that unprofitable enterprises have been unable to engage in integration themselves. Managers of such farm enterprises explained that they should have started integration earlier (in the first half of the 1990s), when they still had some finances and easier access to (state) bank credit. The even smaller private farms have still less chance of being included in integration processes.

Instead of trying to avoid (insecure) market transactions by means of integration, enterprises can rely on their networks and cope with the problems of the current market stage by increasing trust and dependency among market partners. Farm enterprises can also combine integration for some products and reliance on networks for others. The topic of networks is dealt with in the following section.

ECONOMIC NETWORKS OF LARGE FARM ENTERPRISES

Networks can theoretically offer certain benefits to enterprises. Williamson [1991] hypothesises that networks are especially important when flexibility is needed, as in transition economies. However, networks are strongly influenced by the institutional environment and enterprise culture, and they tend not to change overnight.

Huber and Wörgötter [1998: 89] state that the networks which predominate in Russian industry and finance 'tend to be closed and hierarchical', and that it is quite possible that they 'will become instruments largely for preserving the institutional status quo'. It will thus be interesting to see whether such networks contribute positively to conducting business in the current economy. We investigated the networks of LFEs in our survey areas of Pskov and Rostov and changes in these networks over time. Furthermore, we examined factors that distinguish the networks of profitable enterprises from those of less successful ones.

At first glance, the survey data show that important changes in networks have taken place. If one looks at output channels, LFEs market only a very small amount of their products through old output channels (authorities, cooperatives). Most now sell to private market buyers. On average, they sell through two or three types of market channels (of course, the actual number of buyers is much larger, as a farm can sell to different buyers within one market channel). The 43 LFEs in the two survey regions had a total of 122 types of market outlets for their output (factories, authorities, purchasing organizations, small traders, large traders and shops). However, these figures

do not tell the whole story. A shift to private market channels can also mean that LFEs simply continued to deliver to privatized, albeit only cosmetically transformed, buyers.

It appears that not only a change from state-led channels to private channels took place. Practically all LFEs indicated that they had also changed from one partner to another more than once since the start of transition. Especially, with regard to small private traders, LFEs mentioned that a change to new buyers took place 'from year to year' or 'continuously'. For practically all products, the LFEs surveyed have accessed new buyers. Two-thirds of the respondents indicated that there were other potential buyers for their products apart from the buyer(s) to whom they deliver already.

Do these changes mean that old partners and previously existing networks no longer play a role? Despite the changes and flux, most enterprises maintained contacts with some of their most essential partners from before the transition. These contacts continue to be the most important ones in half of the enterprises surveyed. How do the networks of profitable farm enterprises differ from those of less profitable ones? Our surveys clearly show that profitable LFEs have wider business networks. Of those that are medium to highly profitable, five out of six had extended their networks beyond the borders of their region. For those with low profitability this was nine out of eleven. Among the LFEs with financial losses, only half had networks extending beyond regional borders. The networks of unprofitable LFEs were concentrated within their own district, while the networks of profitable enterprises were slightly more spread out over the different districts of the region.

Are there differences with regard to the share of old versus new partners in these business networks? The data suggest that profitable LFEs have more diverse networks and that *both* old *and* new business partners are important. Weaker LFEs seem to be dependent on *either* old *or* new business partners. Farm enterprises in Pskov stick more exclusively with old partners than those in Rostov. This is likely due to the fact that in the dairy sector, which dominates in Pskov, fewer new purchasers have entered the stage.

For practically all products, agricultural producers have shifted to other purchasers, but for milk less than for other products. Several differences in networks exist between the two regions, which, on closer investigation, are in fact predominantly product related. For instance, in Pskov, fewer LFEs sell products outside their region than in Rostov. Most probably this is because milk, which is an important product in Pskov, is more difficult to transport than the grains that are widely produced in Rostov. One LFE in Pskov, however, did sell milk in the nearby region of Novgorod and received significantly higher prices (20 to 25 per cent more) than if they had sold to

local processors. Most LFEs in Pskov also produce some vegetables, flax or (fodder) grains.

Our survey investigated the reasons behind enterprises' change to other purchasers. The influence of state authorities on these decisions seems to have been minimal. For only one of the surveyed enterprises was the authorities' recommendation to change to another partner important. By far the most frequently mentioned reason was problems with payments (low price, late payment or non-payment).

Overall, the data show a developing dynamism in business relations within agriculture. Thus, while the concept of a static 'virtual economy', which shows little development in the direction of a real market economy, might be useful for industry, networks in agriculture seem to be more dynamically emerging. For example, Moers [2000: 324] noted, based on a survey among large industrial enterprises, that 75 per cent of managers found old partners most important to them. The remaining 25 per cent stated that new partners are equally important. For none of the managers were new partners most important. Our surveyed LFEs show a different picture (Table 7). Only one-third of them stated that old partners were most important. One-third mentioned new partners as most important, and another third found old and new partners to be equally important.

The Nature of Network Ties

When ties within networks are not purely business but become multi-dimensional they tend to become stronger. When farm enterprise managers have (or develop) personal relations with business partners, trust among the network partners increases. Where there is more trust, there is less likelihood of contract breach, and therefore transaction costs diminish. Furthermore, partners are more likely to provide each other with privileges such as in-kind

TABLE 7
MOST IMPORTANT BUYERS FOR LFEs (2000–2001)

Financial State	Old	Both	New	Total No.	Missing
1	3	5	3	11	1
2	3	6	4	13	0
3	7	2	4	13	0
4	0	2	3	5	0
Rostov	1	14	8	23	1
Pskov	12	1	6	19	0
Total	13	15	14	42	1

Note: Old partners are partners are those that remained from before the fall of the communist system in 1991.

Source: Own survey 2000/2001.

credit, price reductions and the supply of higher quality products [Radaev, 2000].

In other words, networks become a form of social capital. Social ties, therefore, lead to more stable networks and enhance economic gains, though up to a certain threshold [Powell and Smith-Doerr, 1994]. Opportunism in the form of non-payment or other forms of contract breach is likely to diminish when business relations become multidimensional. Below we analyse the differences in networks between profitable and unprofitable enterprises and address the question of whether farm enterprises with more social capital, as represented by well-developed social networks, indeed are the most profitable ones.

Formal Ties

First, business relations can become formalized through shareholdings in business partners. During the privatization process the Russian government tried to stimulate cooperation within the food chain, and thus reduce the supposed monopsonistic position of the food processors. In December 1994, Presidential Decree 2205 was passed, which envisaged distribution of the majority of shares in food processors among the LFEs that supplied them. The decree stipulated that food processors had to grant agricultural enterprises preferential treatment in acquiring shares. However, the decree did not have the envisaged effect. Most food processing companies had already been privatized by 1994, and some of them did not undertake the recommended secondary emission of shares to enable the LFEs to become shareholders. In other cases, LFEs did not buy the shares, because they were reserving their limited finances for more urgent expenses. In 1996, farm enterprises had a majority share in only 14 per cent of privatized food processors [Wandel, 2000: 380].

Our interviews with LFEs and, during the same period, with food processing companies, suggest that the number of LFEs with shares in food processing companies declined in the latter 1990s. In Pskov city, the capital of Pskov *oblast*, the main food processors tended to have increased their market power, setting out to buy back the shares that LFEs had obtained. For the LFEs, which were in dire straits, short-term gain prevailed over long-term strategic considerations. Mostly they agreed to sell the shares back to the food processors. The financial straits of the LFEs that forced them to do so, were – at least partly – caused by payment defaults by the same processors. Once the directors of processing companies managed to buy back the shares in their enterprise, most transformed their business from an open, to a closed joint-stock company to prevent outsiders from again obtaining shares.

Some of the more profitable LFEs kept their shares in food processing [see also *Kitching*, 1998: 14]. In our survey in Rostov, nine of the 23 LFEs owned

shares in other companies. Of the 20 LFEs surveyed in Pskov only three, all in the peri-urban Pskov district, still owned shares in the local milk plant. The directors of the two largest and most successful suppliers of the dairy plant were represented on the board of directors. However, their shares accounted for only a small portion of the total shares, and thus their influence was limited. Personal relations between the directors of farm enterprises and their business partners are usually of an informal nature. Positions of director in the processing companies do not seem widespread. Though our survey contained a question about participation in any kind of association, none of the directors of farm enterprises reported participating in such a formal network.²¹

Social Ties

The second manner in which business relations can become multidimensional is through a social component. Personal relations can exist or evolve between directors or managers who trade with one another. In that case, enterprise networks are no longer purely business networks, but become social-economic networks. Social dimensions like mutual responsibility, social norms according to ethical business behaviour and trust characterize such personal networks. LFEs that have such multidimensional networks might therefore be more profitable than those without (or with smaller) social networks, since the trust embedded in such networks means that enterprises will have to cope less with non-payment and other forms of contract breach.

The survey data and the accompanying interviews with managers in Pskov and Rostov showed that business relations in the Russian food sector often do have a social component. A director of a food processing firm stated, 'Some of my business partners have become friends. I stay over at one of my business partners when I go to St Petersburg, and he stays at my place when he is in Pskov for business' [*field notes Visser*, November 2001]. The director of a milk factory stated, 'I personally know all the directors of the agricultural enterprises that deliver to us. I know if they have a wife and how many children they have. I know that he [the director of a supplier who was just visiting] just had a baby, only I don't know if it is a boy or a girl' [*field notes Visser*, November 2001].

It seems that in Russia the mutual understanding that enters into business relations when they become more social indeed diminishes opportunism and antagonism and softens negotiations in transactions between farm enterprises and other companies in the commodity chain. A private farmer in Moscow stated, 'Personal relations are important in business. They can solve many of the problems that arise' [*field notes Visser*, June 2001]. The above-mentioned director of the milk factory stated, 'With old partners we solve problems in negotiations, while otherwise we would have go to court.' The main

accountant of an agricultural enterprise in Moscow stated that she regarded old partners as more reliable. If the directors know each other it makes a difference with regard to fulfilment of a contract, including payment, she said, 'If directors know each other they generally find a solution. They barter or they pay'²² [*field notes Visser, June 2001*].

The survey data support these statements: 86 per cent of the interviewed specialists and directors of the LFEs stated that business partners have a better payment record when they are well-acquainted with the director of the enterprise or have a long-established partnership. Which differences can we distinguish between the social relations, and their functions, of profitable enterprises and those of less fortunate enterprises? Our survey asked farm enterprise managers whether personally knowing the manager of a partner enterprise influences the timeliness of payment (Table 8). Their answers provided an indication of the effect and thus the strength of personal relations (or at least the subjective attitude of directors towards the importance and use of social relations. The percentage of enterprises stressing the influence of personal relations increases as profitability increases. Of the unprofitable enterprises, only three out of five thought that personal relations positively influence payment, while all of the highly profitable ones acknowledge the positive influence of social ties in business networks.

From the survey data we can conclude that inter-enterprise relations are more likely to have a social component for the more profitable LFEs; additionally, the more profitable LFEs have larger social networks. This is equally true in Pskov and Rostov. The differences are quite pronounced, as the personal networks of the most profitable enterprises are more than four times larger than those in the category with the lowest profitability. Furthermore, on average the personal networks in Rostov are more than double the size of those in Pskov. Personal networks average 15 directors of other business-partner companies in Rostov compared to six in Pskov. This

TABLE 8
INFLUENCE OF SOCIAL RELATIONS ON PAYMENT RECORD OF BUSINESS PARTNERS (2000–2001)

Do Social Relations Influence the Payment Record of Business Partners?				
Financial State	Yes	No	(N)	Missing
1	10	0	10	2
2	9	1	10	3
3	10	2	12	1
4	3	2	5	0
Total	32	5	37	6

Source: Own survey 2000/2001.

difference can be partially explained by the higher profitability of enterprises in Rostov, though it is also related to product specificity. Pskov is a main dairy producing region, and the number of purchasers for dairy products is generally low.

When the geographical distance with a business partner increases, it becomes less likely that the directors already knew each other before their business contact initiated (e.g., because they studied at the same high school or agricultural academy). Thus in wide networks (those crossing the borders of districts and, especially, of the region), social contacts are less likely to be based on earlier ties. As a rule these earlier ties evolved out of interactions in the context of business with long-term partners. Often these relationships are a continuation of output links under the planned economy. Earlier on, it was found that profitable enterprises had more spread-out business networks. Thus, all things being equal we would expect that their social networks would be smaller, because the likelihood of pre-existing ties declines with increasing geographical distance. Nevertheless, the most profitable enterprises also are characterized as having the *largest* social networks, suggesting that their managers see the importance of social relations and put deliberate effort into building new personal relations or finding old friends to do business with.

CONCLUSION

This article has shown that LFEs in Pskov and Rostov are following various integration strategies, with managers building up new business and social networks, while cultivating old ones. These strategies, especially network building, should not be seen as by definition 'anti-market' (or as a shift away from a 'real' market towards a 'virtual economy'). They are rather a way of coping with volatile markets and missing institutions. First of all, the networks of these LFEs and their renewed integration strategies show too much dynamism (going beyond just cosmetic changes) to characterize them as 'anti-market'. For instance, our data show that for a third of the LFEs, new business partners have become more important than old ones, while for another third, old and new partners are similarly important.

Another indication of change away from a (partially) virtual economy is the decline in barter transactions within agriculture. Barter is a costly strategy to deal with problems of cash shortage and defaults on payments. Because of difficulties in matching demand and supply in barter deals, enterprises must include several intermediate transactions with other firms to ensure that both partners end up with useful products. Complex, often unregistered barter transactions blur insight into the liquidity of the companies with which LFEs deal. In turn, this raises the transaction costs incurred in evaluating the

reliability of such business partners. For these reasons, it is a positive sign that half of the LFEs do not conduct barter (any more), and that in two-thirds of the LFEs that do still engage in barter, the number of such transactions has declined with the recovery of agricultural economy since 1999. LFEs with a large share of barter deals are less profitable than those that conduct more business through cash. Especially the in-kind credit arrangements (*tovarnii kredit*) offered by suppliers of fuel and fertilizers, in cooperation with regional authorities, are detrimental to the long-term viability of farm enterprises, since they force them to deliver products at low prices to their suppliers (or to suppliers' partners in the barter networks) [Amelina, 2002; Kitching, 1998].

Profitable LFEs have largely moved away from barter networks. On average, their share of barter transactions in total turnover (seven per cent) is half that of unprofitable enterprises.²³ More important, profitable LFEs have wider social and economic networks. Social networks tend to facilitate trust between partners. They furthermore improve the payment record. Mutual help also exists within these networks, as LFE managers in our survey confirmed that partners in their social networks gave them favours such as preferential in-kind credit [Kitching, 1998], price reductions and better quality products. In sum, profitable enterprises build their success in 'coping with the market' by reducing transaction costs, integrating forward, diminishing their barter relations and investing in their business and social networks.

A further reason why current farm enterprise strategies should not be seen as primarily anti-market is the fact that strategies of integration and investment in networks are often adopted in parallel with the use of emerging, and still incomplete, market institutions. To mention one example, LFEs try to diminish the transaction costs of contract breach by reducing their numbers of market transactions by integrating or by increasing trust and compliance between partners through network building. Although farm management considered courts to function unsatisfactorily (scoring only 4.5 on a ten-point scale) and mentioned many shortcomings, nearly half of them did use courts in cases of serious contract breach, at least when negotiation with their (network) partners failed to solve the problem.²⁴ We found no evidence that LFEs that invested more in the above-mentioned strategies had a more negative attitude towards the quality of courts and using courts in case of conflict. At the other end of the spectrum, old practices like seeking help from authorities in cases of contract breach have not completely disappeared. A quarter of the LFEs surveyed indicated that they sometimes turned to district or regional authorities. However, the most used strategy for solving conflicts, which was also considered as the most effective, is negotiation with the partner, sometimes in combination with seeking help (or pressure) from other

network partners. Thus, the strategies of especially profitable LFEs build largely on integration and networks, combine with some behavioural elements of the planned economy, specific transitional aspects (such as barter) and more general market-oriented behaviour (such as use of market institutions and setting up market-driven incentive systems).

It is questionable whether these 'coping strategies' will actually lead to a modernized and market-oriented farm enterprise sector. Although Russian LFEs did respond to market prices (and consequently drastically reduced their use of chemical inputs), they have hardly restructured in terms of their agricultural land acreage. They have shed labour, but this was mainly in the financially weak farm enterprises, with the stronger ones doing everything in their power to keep their labour, especially skilled workers. This behaviour originates from the LFEs' former socialist role as rural 'social units' [Visser, 2003b; Uzun, 2002], which shouldered much of the responsibility for providing social services to workers. The painful and complex process of restructuring social production within these social-economic units [Nikulín, 2003; Visser, 2003b] carries an overt risk of widespread social unrest. Therefore, LFE directors have mainly preferred to invest their energy in processing and retailing activities and, most of all, in strategies for cultivating and building networks in order to keep their enterprise alive.

Despite low productivity and insufficient restructuring, large-scale agriculture is expected to remain important, especially because the political forces in Russia clearly favour a future agriculture based on large-scale entities, though the reasons for this are likely more political than economic. The agricultural sector has fared quite well since the crisis of 1998, as it has benefited from robust demand for domestic food products. Labour productivity has increased too, as gross output value rose and employment dropped, though labour productivity remains lower than the 1991 level.

The support for private farms that was prominent in the early days of reform fell sharply after the mid-1990s. In conservative regions, policy has even ignored the private farm sector. In some *chernozem* (black earth) regions, regional governments still support command economy-like integrated structures of large-scale units. In our survey regions, Pskov and Rostov, variants of a less interventionist policy are apparent. However, a common denominator of regional and federal policies is a strong belief in an agricultural development based on the current LFEs, while these enterprises also continue have important social functions to play. Within Russia's current political economy, the large-scale farm sector, with its coping strategies, will thus likely remain important for some time to come. The 'network economy' has enabled LFEs to stay afloat, maintain social services, cope with market uncertainties and sometimes even to increase production. Whether it stimulates a radical increase in output and labour productivity remains to

be seen. Productivity gains will only come about when the institutional and policy framework is substantially improved, so as to enable farm enterprises to make a real 'transition to the market'. For the moment, the strategy of 'coping with the market' adopted by the LFEs, which were originally expected either to reform or perish, is paradoxically continuous, but at the same time quite rational.

GLOSSARY

chernozem – black earth

kolkhoz (*y*) – collective farm enterprise(s)

LFE – large farm enterprise

oblast – province

sovkhos (*y*) – state farm enterprise(s)

tavarnii kredit – in-kind credit

NOTES

1. For a description of the decline of the social and economic functions of LFEs in Pskov and the perceptions and reactions of the employees see Visser [2003c].
2. Also managers may start processing for their own sake. In Pskov the survey included some LFEs in which the directors had established a shadow processing unit. These were formally not part of the LFE, but were owned by the director. As such, the directors could transfer part of the production profit of the LFE to their own company.
3. An exception is Kitching [1998], who briefly deals with the business contacts of farm enterprises and Kharkordin and Gerber [1994] for industrial enterprises.
4. The function 'providing confidential information' overlaps to some extent with 'reducing transaction costs', as collecting data on the reliability of partners are also (indirect) transaction or monitoring costs. However, providing confidential information is such an important function that it requires separate attention.
5. Historical studies have shown that flourishing trade is possible without a sound legal system, when informal social arrangements (and trust) exist to support it [e.g. *Humphrey and Schmitz*, 1998: 45].
6. Since 1996 the number of private farms has declined from 280,000 to fewer than 265,000 in 2003. To be precise, the number of farms declined to 261,100 in 2000, then it grew somewhat (to 261,700 and 265,500 in 2001 and 2002 respectively) before again declining. Owing to a steady increase of farm size, from 41 hectares in 1991 to 62 hectares in 2002, total land held by private (peasant) farms continued to grow from 12.0 million hectares in 1996 to 16.5 million hectares in 2002 [*Goskomstat Rossii*, 2003: 410].
7. The survey for Rostov included two farm enterprises from neighbouring Krasnodarskii Krai (Kuban region), close to the border of Rostov region. For a few questions we addressed half of the enterprises in both regions (and for the other half some other questions) to keep the questionnaire length within limits.
8. Originally the sample consisted of 45 enterprises (20 in Pskov and 25 in Rostov), but in both regions one enterprise was left out because the data on their financial state appeared too unreliable for use in our ranking of enterprises.
9. In Pskov six out of 19 (or 32 per cent) of the survey enterprises were profitable [*Upravlenie Pskov*, 2000]. This percentage is the same as that for the region as a whole. In Rostov 19 out

of the 24 interviewed (23 used) enterprises were profitable (respectively, 79 and 83 per cent). The number of profitable enterprises in the region in that year was 75 per cent [*Goskomstat Rostov*, 2002a: 15–16]. The percentage of profitable LFEs in Russia is in between these two extremes and has grown since 1998 (49 per cent in 2000). We did not manage to find exact statistics on the production profile of the enterprises in the regions, but according to agricultural economists in Pskov and Rostov the sample was representative. The same applies for the formal ownership form.

10. To rank farm enterprises we used two indicators. First, we used their profit (or loss) rank (based on farm accounts and where possible checked with data from regional agricultural departments). Rank 1 = profit of 8,000 roubles/employee and higher; 2 = profit up to 8,000; 3 = break even or loss of up to 5,000 roubles/employee; and 4 = loss of more than 5,000 roubles/employee. Second, enterprises indicated their financial state on a four-point scale from near bankruptcy to medium/highly profitable, when they did not want to indicate their exact profit. At the time of the surveys, the exchange rate of the euro and US dollar to the rouble was just above 1:30. In comparison, Uzun [1999] used profitability (and debt) for his countrywide survey of LFEs, using five groups (with in the middle the 'break even' ones). Although the average profit (loss) per employees is somewhat more extreme in his survey than ours, this is the inverse for wage differences and the number of cows (an important asset).
11. For a discussion of the complexities of economic concepts (and in particular efficiency and production costs) in Soviet and post-Soviet agriculture, see Kitching.
12. The reduction in size of LFEs was clearly less drastic than in the Central European countries, where the average size is now less than 1,000 hectares, down from 3,000 to 5,000 hectares before the reforms [*Lerman*, 2003: 16]. In the Czech Republic and Slovakia the size of LFE declined from more than 2,500 hectares to about 1,500 hectares by 1998. In Bulgaria and Hungary farm enterprise size fell from more than 4,000 hectares to less than 1,000 hectares in the same period [*Lerman et al.*, 2002: 103]. Such drastic declines were not visible in Russia in 1998. It should, however, be noted that privatization in these countries took the form of physical distribution and restitution of land, rather than the share distribution that was used in Russia and most of the former Soviet Union.
13. Mostly the land was transferred first to the village council or district authorities before it reached private farmers (and to a much smaller extent household plot-holders).
14. A recent study by Uzun [2002] shows more decline in acreage for LFEs in Pskov, but confirms that the most profitable enterprises in Pskov reduced their acreage less than the unprofitable ones (Table 4). In his study, the most profitable enterprises registered a decline of eight per cent in the period 1995–2001, while acreage of the weakest enterprises fell by 35 per cent. This difference is possibly explained by the fact that the research by Uzun included LFEs from the more forested northern part of the *oblast* (and our survey did not). Land parcels are much more dispersed there and LFEs have more incentives to shed such land.
15. Uzun [2002] gives data for neighbouring Krasnodarskii Krai, to the south of Rostov. It confirms that for LFEs in the southern grain-growing regions declines in acreage were more limited than in the north. As in Rostov, the most profitable enterprises in Krasnodarskii Krai have not reduced their acreage since 1995. (But in Krasnodarskii Krai the least profitable 'non-viable' enterprises did reduce their acreage by 14 per cent.)
16. Total agricultural output declined by 40.6 per cent from 1990 to 1999 [*Statkom SNG*, 2000], while the share of LFEs in total output was down from 73.7 to 41.0 per cent (see Table 1). This would suggest a decline of 67.0 per cent in the output of LFEs. We also found sources that mentioned a slightly lower decline [*Bogdanovskii*, 2003].
17. From 1998 to 2002 the total agricultural production has grown, as did the share of LFEs. Although this share declined again in 2002, it is still higher than in 1998 (see Table 1). In 1999–2001 the average annual growth rate of agricultural output was 6.2 per cent. However, since 2000 growth has slowed from eight per cent in 2000 to two per cent in 2002, and even to –0.3 per cent in the first half of 2003 [*Serova*, 2003].
18. In only one (highly profitable) enterprise in our survey was the reduction of employee numbers predominantly caused by management decisions to dismiss undisciplined workers.

19. This agro-holding invested more than 600 million roubles in 2001. It bought for 'its' LFEs 82 tractors, 50 combines and 60 trucks. These have about 150,000 hectares of land (of which 100,000 hectares are arable) employing some 10,000 workers [*Gradinarova*, 2002].
20. An exception is the St Petersburg-based brewery Baltika, which leases land in Leningrad, Novgorod and Pskov [*Ioffe and Nefedova*, 2001: 407]. Within north and north-west Russia only in Novgorod, quite a large agro-holding, is found as far as we know (in Veliki Novgorod).
21. This question was included only in the survey for Rostov, but we have no indications that the situation would be different in Pskov, as the agricultural sector is less developed there in many ways.
22. Interview of the main accountant of the farm enterprise Gorskii, Moscow region, June 2001.
23. Profitable enterprises include enterprises categorized in financial state groups 1 and 2 (medium/high profit and low profit, with respectively eight and six per cent barter). Unprofitable enterprises include farms in category 3 and 4, both with 15 per cent barter.
24. Although social relations lead to an increase in trust between the partners, the general distrust in Russian society [*Mishler and Rose*, 1997], the difficult financial situation of the farm enterprises and the manifold chances for opportunism within the current economy put strain on even these business relations. Social relations have a positive influence on contract fulfilment. But even within these relations contract breaches occur that cannot be solved through negotiations or pressure from other network members (the same is observed by Humphrey [2000] for Siberian farm enterprises and by Radaev [2003] for industrial enterprises). In these cases also tight network partners try other strategies such as applying to courts, seeking help from authorities or cutting future cooperation.

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