FALSE TRANSFORMATIONS

FROM STALIN'S PEASANTS TO YELTSIN'S COLLECTIVE FARMERS

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by

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Abstract

The widespread preservation of inefficient institutions in the post-Soviet environment is one of the biggest unexplained puzzles of transition. This study attempts to unravel the puzzle of the longevity of these institutions using the example of collective agricultural production in Russia. Political and economic incentives for preserving the status quo vs. going through market-oriented transformations are traced to the main actors in agricultural production and distribution, from the oblast administration to enterprise managers and down to employees of collective farms. Institutional mechanisms for preserving a path-dependent Soviet-type redistribution of resources are discussed, along with the benefits that accrue to stakeholders from the preservation of access-based structures modeled after socialist prototypes. The study further examines the divergent dynamics of sub-national agricultural policies that lead to two different oblast-specific patterns of restructuring: a laissez-faire pattern in one oblast and an interventionist pattern in the other. Empirically, the study analyzes financial and production firm level data of collective agricultural producers in two oblasts along with household level surveys of their employees/shareholders, and tests for differences in household level responses to oblast-specific agricultural policies. The study concludes with a discussion of policy implications of the observed patterns.
# Table of Contents

## Chapter 1: Reforms and Puzzles ............................................... 1

## Chapter 2: When and Why Collective Farms Restructure – Hypotheses and Reasoning ................................................. 10

1. The Structure of the Study .................................................. 15
2. The Methods and the Data .................................................. 17
   Description of Data ........................................................... 22

## Chapter 3: Literature and Adaptations ............................................. 25

1. Chapter 3A: Institutions, Development, and Multiple Equilibria ......................................................... 25
   Institutions and Development ........................................... 25
   The Political and the Economic ........................................ 33

2. Chapter 3B: The Burden of the Socialist Legacy ....................... 38
   Etiology of Post-Socialism ................................................. 39
   A Particular Case of Coordination Failure: The Logic of Mutual Betrayal ............................................... 41
   Access-Based Power ....................................................... 44
   Why Are Path-Dependent Interventions Possible? .......... 51

## Chapter 4: Reforms and the State .................................................. 80

1. Chapter 4A: Reform Implementation and the State .................. 80
   The Stolypin Reforms: Institutions and Implementation .......... 81

2. Chapter 4B: Agricultural Politics and Collectivist Policies ........ 107
   The Oblast Level .............................................................. 107
   The Politics of Agriculture ................................................. 117
   The National Level ......................................................... 117
   The Oblast Level ........................................................... 120
   The District Level ......................................................... 129

## Chapter 4C: Financing of Agriculture ............................................. 132

1. Subsidies ............................................................................. 132
   The National Level ......................................................... 132
   The Oblast Level ........................................................... 135

2. Credits ............................................................................... 139
   The National Level ......................................................... 139
   Post-Soviet Redistribution: the Food Corporation and Commodity Credits ........................................... 141
   The Oblast Level ........................................................... 146

## Conclusions to Chapter 4 .......................................................... 156

## Chapter 5: Reforms and the Collective Farms .................................. 163

1. Chapter 5A: Restructuring of the JSC: Views from Within .......... 168
   Case Studies from LO-VR .................................................. 171
   Ruch'î ................................................................. 171
   Prinevskoe .............................................................. 183
CHAPTER 6: REFORMS AND THE PEOPLE

CHAPTER 6A: COLLECTIVE FARMS AS INPUT PROVIDERS

In-Kind Payments

The Use of In-Kind Payments

Land Share Payments and the Related Services

Collective Farms as Shields from the State

Collective Farms as Safety Nets of Last Resort

CHAPTER 6B: WHO IS BETTER OFF? THE RELATIVE VALUE OF CASH PAYMENTS AND IN-KIND TRANSFERS

CHAPTER 6C: ATTITUDES TOWARDS CHANGE AND THE COLLECTIVE FARM

CHAPTER 7: CONCLUSIONS

CHAPTER 7A: HYPOTHESES AND FINDINGS

Puzzles and Answers

Administrators and Managers

The Managers and the Managed

Re-framing the Question

CHAPTER 7B: LIMITATIONS OF THE STUDY AND POSSIBLE EXTENSIONS

CHAPTER 7C: POLICY IMPLICATIONS

BIBLIOGRAPHY

APPENDIX 1: THE MEANINGS OF THE TERMS KOLCHOZY AND SOVKHOZY IN THE USSR AND THEIR MODIFICATION OVER TIME

APPENDIX 2: SOCIAL AND PROFESSIONAL PROFILES OF HOUSEHOLDS IN THE SURVEY:

APPENDIX 3: QUESTIONNAIRE FOR THE EMPLOYEES/SHAREHOLDERS OF COLLECTIVE AGRICULTURAL ENTERPRISES, VSEVOLOZHSKII RAJON, LENINGRAD OBLAST, ENGELS RAJON, SARATOV OBLAST

APPENDIX 4: MAPS OF THE LENINGRAD AND SARATOV OBLASTS
Chapter 1: Reforms and Puzzles

Over the past ten years Russian legal and fiscal reforms were designed to orient agricultural production away from the plan and state control towards the market and private initiative. In pursuit of this objective, state ownership of both agricultural land and agricultural enterprises fell from 100 per cent in 1990 to about 10 per cent in 1996. Federal agricultural financing declined from almost 11 per cent of GDP in 1992 to about one per cent in 1997. Prices of agricultural output and of the majority of agricultural inputs were liberalized.

Legally the ownership of collective enterprises has passed from the state to private owners. The former collective farms, known as kolkhozy (collective farms) and sovkhozy (Soviet farms), are now owned by their employees. The legal transformation of kolkhozy and sovkhozy into privately owned agricultural enterprises took place between 1992 and 1994. All kolkhozy and sovkhozy were mandated to choose new legal structures that reflected the transfer of ownership and assets from the state and the collective to the

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4 For a definition of collective and soviet farms (kolkhozy and sovkhozy) see Appendix 1. Land ownership of state and collective farms was guaranteed to their employees in the Zemel'nyy Kodeks Rossiskoi Federacii [Land Code of the Russian Federation], Krestyanskie vedomosti, no. 16, May 27, 1991, 3.
employees. A Presidential Decree, “On Immediate Measures for Implementation of Land Reform,” was issued in 1991 and provided a number of legal options for the restructuring of kolkhozy and sovkhozy into privately owned farms. These options ranged from abandoning collective or cooperative modes of production completely in favor of individual farming to preserving different levels of cooperative integration.

Despite these dramatic opportunities for meaningful agricultural reforms on the one hand and the constraints imposed by drastically diminished federal financing on the other, practical changes in the organization of farming have not followed suit in most regions. In terms of actual legal transformations, the former collective farms have overwhelmingly chosen to be restructured as joint stock companies (the JSCs). Despite the capitalist-sounding name, the majority of Russian agricultural JSCs resemble former kolkhoz structures. JSCs are legally defined as agricultural enterprises that are collectively owned by their employees. A JSC is obliged to issue stock to its owners according to the value of the land and property shares. The other reorganization option offered to the kolkhozy and sovkhozy include limited liability partnerships, open joint stock companies, and agricultural producers’ cooperatives. Yet, these legal options were either not chosen or, when they were, became indistinguishable from each other and from the JSCs in terms of actual governance. Differences in registration largely reflected political expediency and

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7 Ibid.

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the tax privileges that existed or were believed to exist by collective farm management at the time of mandatory registration.

These new incarnations of old structures have performed poorly, both financially and economically. The efficiency of former collective farms is low and dropping in the majority of the oblasts (provinces). Even though a formal nationwide efficiency study of collective producers only furnishes data up until 1995, anecdotal evidence suggests that nationally the trend has not changed since then. Collective enterprises have also become largely unprofitable (Table 1), or, rather, price liberalization has made their cost inefficiency more apparent and larger.

While this explanation helps in understanding the facts, it does not help in understanding the reasons. Why, despite this sudden and overwhelming absence of profitability did the JSCs not cut costs and opt for radical restructuring?

For, while profitability of collective enterprises has steeply decreased, there has been no significant change in their number. Furthermore, official statistics indicate that

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9 The most widely accepted explanation for the decline in profitability is that the prices of decontrolled inputs increased steeply and that between 1992 and 1996 they rose much faster than the prices of outputs. For a discussion of rapid change in the cost structure of agricultural production see Elena Zhogoleva and L. Skul’skaya, “Stabilization and Growth of Agricultural Production: The Role of Prices,” Studies on Russian Economic Development 5, no. 4 (July-August 1994): 330-337.
collective enterprises still produce half of the country’s agricultural output and own more than 80 per cent of the agricultural land.\textsuperscript{10}

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|}
\hline
\hline
\textbf{Number of Collective Enterprises} & & & \\
\quad (in 1000s) & 26.9 & 26.9 & 27.0 \\
\hline
\textbf{Number of Unprofitable Collective Enterprises} & & & \\
\quad % of the total number of farms & 5 & 5 & 82 \\
\hline
\textbf{Share of Agricultural Production} & & & \\
\quad % of national agricultural production & 68.8 & 54.5 & 49.9 \\
\hline
\textbf{Agricultural Land Use} & & & \\
\quad % of total agricultural land & 91.2 & 82.8 & 80.4 \\
\hline
\textbf{Average Size of Land Holdings per Collective Producer (in hectares)} & 4,200 & 3,300 & 2,900 \\
\hline
\end{tabular}
\caption{Collective Enterprises, Main Indicators}
\end{table}

Sources: Goskomstat, Statistical Bulletin No. 8 (37), October 1997; Moscow. Sel’skoe Khoziaistvo v Rossii, 1998, Moscow.

Despite the new legal rights to create agricultural enterprises with different ownership structures, collective agriculture has not been taken over by other institutional players. The enactment of the 1990 Law on Peasant Farms of the Soviet Russian Federation, as it was then called lifted a 50-year ban on individual commercial farming.\textsuperscript{11} However, by 1997 individual farms – an alternative to collective farming promoted by agricultural reform - produced an unimpressive 2 per cent of national agricultural output (Table 2). After an initial increase in the number of individual farms, inspired by decrees that legalized individual farming and promised substantial financial support, the

\textsuperscript{10} The terms “collective producers,” “collective farms,” and “collective enterprises” are used interchangeably and denote large-scale post-Soviet agricultural producers. Twenty-one out of the twenty two collective enterprises of the study have been transformed into JSCs, and the term here is used to signify collective producers that have gone through legal restructuring.

establishment of new individual farms first stalled and then decreased. By 1996 the number of newly established farms fell below the reported number of closures (Table 2).

The only producers that have shown an impressive increase in their share of national agricultural production have been the private plot holders. Private plots are small pieces of land used by both rural and urban households throughout Soviet times to grow produce, usually vegetables, for household consumption and the occasional sale of surplus. Unlike individual farms, the plots are small (Table 2) and officially intended for little more than subsistence. The big embarrassment of the socialist system was that despite an ideology that held collective production to be superior, individual plots became so important in feeding the nation that the planned goal of eliminating these rigidly controlled manifestations of individual entrepreneurship had to be dropped.

Private plots are located in the same geographic areas as collective fields. Often the plots are gardens adjacent to houses, but they may also be at some distance from the place of residence of the household to which they have been allocated. There is no difference in the quality of soil between private plots and collective fields, except for the effects of soil improvement. While there is no reliable data on the subject, it is believed that private plots are fertilized more carefully and consistently by their owners than collectively owned fields. Throughout Soviet times, private plots were the major producers of dairy

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products and vegetables for both rural and urban dwellers. In the post-Soviet period the share of private plot production in agricultural output has increased radically, whereby, according to official statistics, almost half of Russian agricultural output is produced on five per cent of the land (Table 2). This research demonstrates that the amount of privately used land may be underestimated because of the unofficial use of collective land for private production by collective-enterprise employees-turned-shareholders (see below). Yet, even if it is assumed that the amount of privately tilled land is twice the official estimate, the difference in land input and agricultural output between private plots and collective producers is so great that higher productivity of private plots seems indisputable.

Yet, as Table 2 demonstrates, subsistence-level private production does not appear to be expanding into commercial individual farming. Most private plots are small and stagnant, merely maintaining a household’s subsistence. The growth in the number of private plots has been viewed as a survival strategy, a household response to diminished employment opportunities in other sectors. In short, there is no indication that private plot tilling is growing into individual farming, a viable alternative to the JSCs.

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14 Ibid.
15 This assessment of the amount of land used for household plots may be somewhat underestimated. Observations from other studies and our own research show that many of the inputs for private plots come from collective enterprises at a below-market cost, which complicates the assessment of costs and volume of inputs used for private production. For a recent discussion see Gregory Ioffe and Tatyana Nefedova, “Areas of Crisis in Russian Agriculture: a Geographic Perspective,” Post-Soviet Geography and Economics 41, no. 4 (2000): 288-305.
Table 2: Individual Farms and Private Plots, Main Indicators

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>Share of Agricultural</strong></td>
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<tr>
<td>Production (by producer % of total)</td>
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<tr>
<td>1. Individual Farms</td>
<td>--</td>
<td>1.7</td>
<td>1.9</td>
<td>2.2</td>
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<tr>
<td>2. Private Plots</td>
<td>31.2</td>
<td>43.8</td>
<td>47.4</td>
<td>47.9</td>
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<tr>
<td><strong>Agricultural Land</strong></td>
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<td><strong>Use (% of total, by user)</strong></td>
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<tr>
<td>1. Individual Farms</td>
<td>0.6</td>
<td>4.8</td>
<td>5.2</td>
<td>5.7</td>
</tr>
<tr>
<td>2. Private Plots</td>
<td>2.6</td>
<td>4.5</td>
<td>4.8</td>
<td>5.0</td>
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<tr>
<td><strong>Average Size of Land</strong></td>
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<tr>
<td><strong>Plots (in hectares)</strong></td>
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<tr>
<td>1. Individual Farms</td>
<td>--</td>
<td>42</td>
<td>43</td>
<td>44</td>
</tr>
<tr>
<td>2. Private Plots</td>
<td>0.27</td>
<td>0.37</td>
<td>0.36</td>
<td>0.36</td>
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<tr>
<td><strong>Number of Producers</strong></td>
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<td>(in 1000)</td>
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<tr>
<td>1. Individual Farms</td>
<td>4.4</td>
<td>270</td>
<td>280</td>
<td>278.6</td>
</tr>
<tr>
<td>2. Private Plots</td>
<td>17.1</td>
<td>16.6</td>
<td>16.3</td>
<td>16.4*</td>
</tr>
</tbody>
</table>

Sources: Goskomstat, Statistical Bulletin No. 8 (37), October 1997; Sel’skoe Khoziaistvo v Rossii, 1998, Moscow.

* In 1993, some privately held plots were reclassified as plots for private housing, which led to the decrease in the total number of plots in this category.

These puzzling numbers demand explanation. This study is an attempt to unravel some of these puzzles.

The goal is to understand why a collective farm’s main stakeholders stay within and continue to support the collectivist framework.

The incentives this study examines include the total benefits that stakeholders hope to receive from a collective structure, as well as the open and covert constraints on farming imposed by the economic and political environment. The pool of stakeholders included in this analysis expands beyond the immediate producers of the collective enterprises (managers and workers) to include the political players (national and provincial administrators).
The inclusion of political actors in this analysis is necessitated by the understanding of the high level of involvement of provincial administrators in the management of industrial and agricultural enterprises under socialism. The present development of institutions in the Russian agriculture is largely path-dependent in the sense that current models of governance are to a large extent, based on the socialist institutional legacy.

The concept of path dependency is used in the same sense it was used by Paul David, when he traced the standardization of a sub-optimal keyboard to a sequence of historic events and decentralized decisions that determined the inefficient outcome:

A path-dependent sequence of economic changes is one of which important influences upon the eventual outcome can be exerted by temporally remote events, including happenings dominated by chance elements rather than systemic forces. In such circumstances "historical accidents" can neither be ignored, nor neatly quarantined for the purpose of economic analysis; the dynamic process itself takes on an essentially historical character.17

It is hypothesized that the measure of departure from this legacy at the regional level depends on the level of support extended to the path-dependent structures by the sub-national governments. This sub-national reinterpretation of national policies is possible because of the federal government's weak efforts to implement reform.

As will be discussed in more detail below, in the socialist context the political and the economic functions of both managers and administrators were fused, i.e. both sets of actors were involved in the centralized plan-driven distribution of inputs and outputs. These distribution exercises were not guided by market-based indicators of prices and consumers' demand, but by officially planned targets on the one hand, and the increasingly important unofficial preferential access to resources secured by the best-connected actors on the other. Thus, the production goals and methods of distribution made administrators' and managers' roles, goals, and skills coincide in many important ways.

This fused nature of the political and the economic under socialism allows for the development of several nested hypotheses about the paths of post-socialist agriculture in Russia. These hypotheses address the incentives and constraints that different actors face in developing post-socialist institutions. The hypotheses are stated as top-down clusters, from government incentives that promote certain paths of agricultural development to the managers' and employees' incentives for staying within the collective.

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18 For a model of the increasing role of unofficial interactions between the managers and the state under socialism see Mancur Olson, *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships* (New York: Basic Books, 2000).
Chapter 2: When and Why Collective Farms Restructure – Hypotheses and Reasoning

• Here I hypothesize that, in spite of the fact that the legal framework for restructuring Russian agriculture was developed by the federal government, the initiative for reform implementation has shifted to sub-national administrators. The reasons for this shift of initiative are expected to be, first, insufficient and faulty attention paid to creating channels for reform implementation, and, second, insufficient power of the federal government to demand compliance from sub-national actors.

• The further hypothesis is that the course of post-Soviet agricultural development is driven by the benefits that different sub-national governments are capable of extracting from the preservation of Soviet redistribution patterns. The desire to invest in a post-Soviet distribution system depends on what economic rents and political benefits local administrations receive from coordinating an economically inefficient distribution system, as well as from the perceived cost of maintaining the distribution networks. In agriculture, the perceived costs and benefits of restoring a post-Socialist distribution system are based on the agricultural endowment of a particular region and on commodity-specific input requirements:

• The natural endowment of a region plays an important role in its propensity to restructure. Recreation of the post-Soviet patterns is achieved more easily with crop
production, where the need for inputs is discrete, rather than with livestock production, where the need of inputs is continuous. Crop production is characterized by a low complexity of inputs. First, the producers need inputs primarily twice a year, at the time of harvesting and sowing. Second, the number of inputs needed to resume the cycle is limited. With a legacy of large-scale agriculture based on extensive use of machinery and equipment, in the short run the producers need a very limited number of inputs, primarily fuel and equipment parts. These characteristics of production make it possible for the subnational administration to continue to participate in input distribution in a path-dependent way, even under the constraint of liberalized prices.

- An important region-specific characteristic is the share of agriculture in the regional economy. More agricultural regions traditionally earn a larger share of revenue from agricultural production. They also have a larger share of administrators trained in the Soviet distribution of agricultural resources. The combination of high share of revenues coming from agriculture with administrative skills in resource distribution leads to a paradoxical outcome. Regions that are better endowed agriculturally are more likely to preserve path-dependent distribution systems and more interventionist agricultural policies than regions where the role of agriculture is smaller, the expected revenue from interventionist agricultural policies is lower, and the human capital of administrators is less tied to agriculture. In such less-agricultural regions the local government is likely to perceive the costs of preserving path-dependent post-Soviet distribution patterns as too high and its economic and political benefits as too small. In the less-endowed regions,
therefore, the sub-national agricultural policies are likely to be *laissez-faire and regulatory* rather than *interventionist and participatory*. Therefore, restructuring is more likely to occur in the hands-off, regions with agriculture constituting a smaller share of the economy of the region.

The next set of hypotheses addresses interactions between local administration and collective farm managers and between collective farm managers and employees. Agricultural policies pursued by provincial governments are expected to significantly affect the development of these interactions.

1. When the *oblast* government pursues post-Soviet interventionist policies, collective agricultural producers continue to be a part of a *hierarchical firm-like political and economic structure*. In a path-dependent way this structure continues to provide fused political, social, and economic benefits to the involved group of actors (Chart 1). These actors are local government officials, collective farm managers, and collective farm employees. Distribution of benefits within the structure continues to be based on *preferential access to resources* managed and coordinated by the *oblast*-level quasi-governmental institutions.

2. In *oblasts* where hierarchical, access-based structures dominate agricultural production and distribution, collective enterprises' pursuit of restructuring strategies is constrained. In such an environment the restructuring strategy of the
collective farm managers continues to evolve around distribution of resources rather than maximization of profit. The benefits managers derive from the preservation of the system include preservation of the validity of their skills and of their dominant position in the distribution system.

3. It is hypothesized that the benefits the employees derive from staying in an access-based structure can be termed indirect profit maximization. Graphic manifestation of this pattern is enclosed in the horizontal ellipse on Chart 1. The employees do not stay with the collective because the collective farm management has the ability to generate revenue from sales and then to transmit part of the revenue in the form of salaries or dividends. They stay with the collective enterprise primarily because they can use the collective enterprise as an input and social safety net provider, as well as a shield from interactions with the state, an entity they do not trust. Within this scheme employees maximize their revenue by using the resources as inputs for individual agricultural production, a strategy related to the ability of the enterprise to accumulate inputs and increase outputs, not to its ability to generate sales revenue in the new market environment.
4. In the more laissez-faire environment the interactions within the enterprise are expected to develop along market-oriented lines. The enterprises in this environment restructure so as to generate revenue in a "capitalist" profit-maximizing way, by participating in market transactions and not by being part of a resource distributing network. In this model the boundaries of a collective enterprise correspond to its legal limits. Incentives for staying in a market-oriented collective enterprise can be called direct profit maximization, whereby employees receive cash salaries which are the main source of income derived from a JSC (the section enclosed in a horizontal ellipse on Chart 2). Compensation that employees receive in exchange for their labor depends on the ability of an enterprise to generate revenue. Within this model other services traditionally provided by the JSC become secondary to the payment of contractual wages.
The empirical work is designed to test whether the data on institutions implementing federal and local agricultural policies, as well as the data on the effects of the restructuring of collective producers and their employees, supports or rejects the hypotheses outlined above.

The Structure of the Study

Chapter 3 examines the literature that contributed to the understanding of current dysfunctions in Russian agriculture. Chapter 4 discusses government structures that were created at the national and sub-national levels for the implementation of agricultural reforms. In this context, I compare the reform implementation efforts of the current Russian government with those of a previous Russian government that tried to introduce
individual farming in Russia, the Stolypin reforms of 1906-1914. The following subsection examines the incentives the current sub-national governments have for reinterpreting the reforms in ways not intended by the federal policy-makers and the institutional channels used for the implementation of the local interpretations of agricultural reforms. Chapter 5 analyzes firm-level reactions to region-specific policy environment. Specifically, I test if there is a difference in restructuring strategies used by collective farm managers in the two regions of the study. Case studies of managerial strategies are presented and the effects these strategies have on the production practices at the firm-level are discussed. The analysis is based on semi-structured open-ended interviews of the collective farm managers. These case studies demonstrate variance of paths of restructuring within districts. They also make it possible to single out district-specific trends and to relate these changes to agricultural policies observed in the two oblasts. Qualitative analysis is complemented by the study of balance sheet financial and production data obtained from the same collective enterprises. The goal of the qualitative analysis is to test if enterprises in the two districts face different budget constraints. Chapter 6 examines the effect that different patterns of reform observed in the two oblasts have on the channels used as well as on the size of income obtained by the employees of the collective farms in the two districts of the study. Finally, Chapter 7 summarizes, discusses policy implications of the observed interactions, and maps out paths for further research.
The Methods and the Data

In this attempt to assess the pace of transformation in the Russian countryside, political and economic interactions are analyzed at a number of levels.

The first level is national. Here data on the development of reform-oriented institutions at the national and sub-national levels are presented and discussed. In a case study reform institutions created by the Yeltsin government are compared to reform promoting efforts undertaken by another Russian government that attempted "farmerization" of Russian agriculture, the so-called Stolypin reforms of 1907-1914. Against this background, the behavior of the federal reform-implementing agencies in the two districts of the study are analyzed together with the incentives these institutions have to assist their immediate clients: the individual farmers.

The second level is provincial. Oblast-specific agricultural policies and implementation strategies are examined for divergence from those promoted by the federal government. To test the hypotheses about the divergent sub-national paths of policy implementation, a case study of two Russian oblasts and of two districts within these oblasts are used.

The study was carried out in two districts (raions) in two oblasts. One oblast primarily produces dairy products and vegetables, while the other primarily produces grain. At the start of the reform process both regions had identical collectivist structures.
for agricultural production. In the course of the reform, each of the oblasts developed
different patterns of remuneration of employees and of financing production. The study
traces the differences in financing the production used by collective enterprises and the
patterns of employees' compensation by correlating these differences to the patterns of
political and economic structures at the oblast level.

The two oblasts of the study are the Leningrad Oblast (LO) and the Saratov Oblast
(SO). These two oblasts were chosen because of their geographical location and their
crop mix. The LO is located in the northwestern region (Appendix 4, Map 1) and
typically produces vegetables, meat, and dairy products. The SO is located in the central
Volga and is a representative black-soil grain-producing oblast (Appendix 4, Map 2)
These commodity sets are typical for the North-West and the South of Russia
respectively. Together the two oblasts produce all the major commodities characteristic
of Russian agriculture.¹

Within each oblast (province), one raion (district) was chosen for a more focused
analysis: the Vsevolozhsk Raion (LO-VR) in LO and the Engels Raion (SO-ER) in SO.
Both raions are located in peri-urban areas, adjacent to the oblast capitals of St.
Petersburg for the LO-VR and the city of Saratov for the SO-ER. Peri-urban locations
have been shown to have the most sustainable and profitable agricultural production in
Russia. They were also the first areas in which ownership patterns changed in ways
related to agricultural reform. As the result, these regions are expected to be the first to register market-oriented shifts in ownership patterns and production practices.  

Key oblast administrators’ previous professional affiliations are used as proxies for the path-dependent nature of their skill mixes and behavior in their new roles as post-Soviet administrators. Policy positions assumed by the management of the two oblasts are then matched with the level of sub-national financing devoted to agriculture. Budgetary and extra-budgetary expenditures on agriculture are treated as a measure of the interventionism of the oblast government.

The role of provincial food corporations is analyzed to assess the role of post-socialist institution-building, as well as the functions performed by new institutions and organizations. Food corporations were chosen for detailed institutional analysis after the corporation was rated the most influential political actor in one of the oblasts.

The third level is the collective farm. Here the goal is to compare the level of restructuring that has taken place at the JSCs in the two districts of the study. To achieve this goal the financial and production data from all the JSCs located in the two districts were used, 22 JSCs in total (for sampling and data description, see data description below).

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1 For more detail on the geographical characteristics of agricultural patterns in Russia, see Gregory Joffe and Tatyana Nefedova, Continuity and Change in Rural Russia (Boulder: Westview Press, 1997).
2 Ibid.
Specifically, firm-level data is used to assess changes in the sources of financing of collective enterprises as well as changes in the accumulation of fixed and variable costs in relation to sales and profits. Accounting ratios from the balance sheets provided by the JSCs in the studied districts are used to measure the "hardness" of budget constraints. Quantitative data are complemented by extended open-ended interviews with collective farm managers about the uses and sources of inputs, outputs, the paths of restructuring, and restructuring strategies such as marketing channels, cost cutting measures, and the role of the local government in the restructuring of the JSCs. To assess presence/absence of oblast-specific trends in restructuring patterns, managerial strategies for restructuring were compared by category: interactions with employees, introduction of new agricultural products and/or processing into the output mix, changes in channels of acquisition of inputs and sales of outputs.

Finally, to analyze the effects of agricultural reforms on employees of the collective farms, the employees of all 22 collective enterprises of the study were surveyed (see data description for details). The goal of the survey was, first, to establish the nature and strength of ties between the employees and the collective farm. The second goal was to establish if preferential pricing of inputs and of official and unofficial access to inputs that could be used for individual production, such as land, equipment, and fodder, were more important than the official wages paid by the enterprise. In other words, the level of path-dependent post-Soviet informality in the relations between the employees and the collective enterprise was assessed (for questionnaire, and sample profile see Appendices 20
3 and 2 respectively). This relationship was quantified using market and internal JSC prices to assess the value of in-kind payments that employees received from the collective enterprise. To my knowledge, this is the first effort to use both internal and market prices to recalculate the benefits from informal payments that employees receive from their continued association with the collective.

The multiple levels of data collected and used to establish the actual direction of agricultural policies makes it possible to examine the nature of change from four different perspectives: the national government, local administrators, collective farm managers, and collective farm employees. These different levels of analyses make it possible to establish and follow the incentives this diverse set of actors is facing. It also allows us to see where these incentives intersect and to move beyond legislation to establish the actual level of change associated with acceptance of or hindrance to the reform.

To summarize, the multi-level design makes it possible to examine policies and outcomes that affect the key stakeholders. Together these policies create incentives for either further restructuring and development or continued preservation of the status quo.
Description of Data

The data set contain three subsets of quantitative and qualitative data: the oblast level subset, the firm (collective farm) level subset, and the household level subset focused on the employees/shareholders of the JSCs.

At the oblast level, the qualitative data include a series of structured and open-ended interviews with province- and district-level officials involved in the design and implementation of agricultural policies. These interviews are complemented by oblast level data on the legal, political, and institutional infrastructure as it evolved between 1992 and 1998. Qualitative information also includes legislation related to agricultural policies and their implementation, biographies of oblast-level politicians in both the executive and legislative branches, information about formal and informal parties and political groups involved in agricultural and rural policymaking and politics, and descriptions of oblast-level agencies and organizations that formulate policies and channel funds to agricultural producers. Oblast-level quantitative data cover the same time span (1992-1998) and include such agricultural production indicators as a share of agriculture in the oblast economy, demographic data on the rural population, and data on budgetary and extra-budgetary financing of agriculture by type of producer.

The firm-level subset includes financial and production data for all the mixed (crop
and dairy) JSCs located in the two raions of the study (LO-VR and SO-ER). The total number of collective enterprises is 22. Production and financial data were provided by each raion's Departments of Agriculture. The data cover the fiscal years from 1994 to 1997 and were complemented by open-ended interviews with the managers of the JSCs being studied.

Finally, the household-level data were collected through a stratified survey of shareholding employees of the JSCs, conducted in the 22 JSCs of the study between January and March of 1999. A shareholding employee is defined as a worker who was fully employed by the collective farm before the legal restructuring of 1992-1994 and who continues to be employed by the JSC. Almost all of the full-time workers of the JSCs are shareholders under this definition.

The size of the sample in the two raions is 181 households, with 96 households in SO-ER and 85 households in LO-VR. The protocol for employee/shareholder identification was as follows: first, accounting departments of all the mixed crop enterprises in the two raions compiled lists of all shareholding employees in their collective enterprises. The lists contained information about age, gender, professions/skills, and addresses of the shareholders. Second, the sample was stratified by the age of the shareholder (over 50 full years /under 50 full years) and by the profession/skill of the shareholder (crop/dairy/administrative). Third, the interviewers/ enumerators were instructed to select households randomly from the
stratified list of shareholding employees in door-to-door interviewing. If the JSC employed inhabitants of more than one village, the survey was conducted in all of the villages where the majority of the JSC employees lived to avoid village-specific biases.

The number of households interviewed in each JSC depended on the number of employees in the JSC: 6 households were interviewed in JSCs with a labor force smaller than 300 employees and up to 12 households were interviewed in those JSCs where the labor force exceeded 300 employees.

In the section that follows, the discussion focuses on literature that shaped and informed this inquiry.
Chapter 3: Literature and Adaptations

This section examines different strands of literature that contributed to the understanding of institutional processes in Russian agriculture. One strand is that of institutional economics, which in broad terms examines the role of transaction costs in the organization of economic exchanges and its recent successor, modern economic theory. The second strand of literature is the study of post-socialist transformations and the third examines the narrower subject of developments in post-socialist Russian agriculture.

Chapter 3A: Institutions, Development, and Multiple Equilibria

Institutions and Development

Since Theodore Schultz, peasants have been viewed as rational and brought into the realm of neoclassical examination. As with other spheres of economic investigation, institutional analysis of agricultural economic transactions broadened the inquiry to include the study of institutions that organize the distribution of wealth among economic actors involved in agriculture. The endogenous analysis of institutions, including agricultural ones, is based on a number of premises which, according to Pranab Bardhan, can be classified into two main schools: the transactions costs school of Coase, Demsetz,

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Alchian, Williamson, and North (CDAWN), and the imperfect information school of Ackerlof and Stiglitz. The first approach, in broad terms, explains the existence and the development of institutions as a means of diminishing transaction costs. The second approach is based on the premise that institutions facilitate mutually profitable exchanges in the presence of asymmetric information available to different participants in economic exchanges.

Originally, both approaches held that institutional development served the positive social role of smoothing market imperfections. New ones replaced old institutional structures if the underlying conditions were changed and if the mitigating role of existing institutions was undermined. Yujiro Hayami and Vernon Ruttan extend this line of reasoning to the development of institutions in agriculture, considering relative shifts in factor endowments, primarily of land and labor, to be the key variables that trigger realignments and change in the institutional structures.

Both frameworks viewed institutional development as the process of societal adaptation to the imperatives of more efficient production:

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A major source of institutional change has been an effort by society to internalize the benefits of innovative activity to provide economic incentives for productivity increase.5

The change in the position on the inevitability of progression from less to more efficient institutions can be traced in the works of Douglass North and is indicative of the shift in understanding the paths of development. As Karla Hoff points out, North's contribution to the field can be divided into two phases.6 During the North 1 phase, Douglass North embraced the view that in the course of human development more efficient institutions prevailed over less efficient ones. His famous study of western European history between 900 and 1700, co-authored with Thomas, traced the effect changing scarcities of factors had on the development of institutions that allowed for higher efficiency of economic interactions.7 During the North 2 phase, Douglass North "disparages the prospects of understanding economic history as a more or less inevitable movement towards more efficient institutions."8

In recent years both schools of institutional economics came to recognize that institutional development does not necessarily progress in the direction of higher efficiency:

The implication of this research [in the Economics of Information, the Theory of Coordination Problems, and Institutional Economics] is that market economies do not “naturally” make the right trade-offs. In general, the reward to any behavior depends directly on the behavior of all others: there are pervasive externalities. In some cases, the result is that there exist multiple, Pareto-ranked equilibria: each agent may know that there is another equilibrium in which all agents would be better off, but he is powerless to coordinate the actions of agents to attain that outcome.

Hoff and Stiglitz analyze the shift away from the neoclassical paradigm to modern economic theory (MET) primarily in terms of accepting that failure to develop is as probable an outcome of the process of development as is the victory of more efficient structures over inefficient ones. The neoclassical view of the process of development assumes that a particular set of institutions and the distribution of benefits associated with this particular set is negligible for the outcome. What matters are the transfer and/or accumulation of technology and other factors that leads to an efficient outcome and can be achieved under any institutional constraints. Therefore, the difference in achieved wealth is primarily the result of different historic starting points for accumulation, not of divergent paths.

The neoclassical vision of development is contrasted with that of modern economic theory (MET). The three central elements of the MET are: first, the understanding that the development of institutions is a complex interdependent process that can lead to mutually

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reinforcing positive developmental results as well as to mutually reinforcing underdevelopment traps. Second, that initial distribution of wealth in a society affects the path of institutional development and the efficiency of outcomes. Third, that history affects outcomes, in that the effects of historic events are unique for each nation. Historic beliefs embraced by a group of people at most determine and at least affect the economic behavior of a particular group. Thus, the synergetic prevalence of a pro-development past can lead to high-efficiency outcomes at lower costs, while a history of inefficient low-equilibrium outcomes and low-trust interactions makes high-efficiency outcomes in the future more costly.

This more complex vision of the process of development allows for more diverse outcomes than have hitherto been allowed for by neoclassical models. For example, according to Solow's vision of development, quintessentially neoclassical in its assumptions, incomes across countries converge at a particular point in time. In contrast, MET, in accepting indeterminate outcomes, borrows the logic of its models from biology and focuses "more on evolutionary process, complex systems and chance events that may cause systems to diverge."10

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10 Robert Solow, "A Contribution to the Theory of Economic Growth," *Quarterly Journal of Economics* 70, no. 1 (1956): 65-94. Observation made in Hoff and Stiglitz, "Modern Economic Theory and Development," 15. As an aside, the Darwinian theory, together with the allowance for evolutionary traps, is based on the assumption of the survival of the fittest, which brings us back to the idea of the ultimate triumph of the more efficient outcomes. Therefore, the difference between the neoclassical and the MET views of development may be primarily that of time horizons and acceptance of failure of the weakest in the path of the fittest to greater efficiency.
The MET paradigm includes acceptance of path dependency as an endogenous factor that may place countries on divergent developmental tracks but does not mean that underdevelopment traps, which are viewed as outcomes of coordination failure, are destined in perpetuity for some countries and regions. It means that development is not achievable “just” by transfers of sufficient quantities of a missing factor and the removal of market distortions. In the new model “good” development is possible by a movement out of an old equilibrium to a new virtuous circle. “While this may require fewer resources, it may require more skill.”

Jumping ahead, it may be said that the MET vision of development as a complex, path-dependent interaction of historic paths and current incentives that can lead to either low-efficiency outcomes is helpful in understanding the slow pace and unsatisfactory outcomes of post-Soviet reforms. It is also helpful in understanding the divergent paths of institutional development and governance structures in agriculture of two districts in the same country, as is the case in this study. These districts started with similar initial conditions and similar Soviet institutional structures. However, divergent political development and different perceptions of costs and benefits resulting in the preservation of a more inefficient system vs. the introduction of a more efficient one, sets these regions on divergent post-Soviet developmental paths. Endogenous mutually reinforcing sets of incentives lead these regions further apart in the direction of different equilibria.

The prescriptive part of these findings is a more difficult matter. How does an economy get propelled from a bad equilibrium to a good one? Hoff and Stiglitz differentiate between deep and shallow interventions. Deep interventions are those that affect a de facto distribution of wealth, since changes in the distribution of wealth in turn trigger changes in agency interactions as well as in perceptions of risk and vulnerability. Politically, changes in wealth distribution lead to different alignments and support for different institutions. However, if the reforms are shallow and not internalized by the society, incentives will not be realigned and the actual state of affairs will not change. Furthermore, the effect may be the opposite of that expected due to the phenomenon of “political fungibility”, which allows the old, better informed, and more powerful actors to change the rules so as to secretly provide benefits to a selected interest group rather than to those designated to be beneficiaries of the reform process. Such an outcome makes the situation worse as transparency of social and economic interactions are further undermined.

In this study the efforts of the Russian national government to implement agricultural reforms are judged to be shallow. The shallowness of the reform in this case is not an outcome of clandestine support of previously dominant groups by the national government, but of a failure of the government to neutralize these groups or change the incentive structures. Another failure of the government in the reform process is the failure to reduce the rural population’s “individual-specific uncertainty” concerning their

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12 The term “political fungibility” in this context was introduced by Michael Finger in “GATT Experience with
chances of becoming winners in the process of agricultural reform. As will be discussed in detail, the shallowness of the reform allowed local authorities to take advantage of the political fungibility of the imposed institutions and, in the case of one oblast, to reinterpret the reform so that the outward trappings of the reforms could remain totally unchanged but not have to result in any type of demolition of socialist institutions. Cosmetic compliance with the reform agenda obscured divergent governance structures, leading to transformations much deeper in one region and much shallower in the other.

Theoretical studies have advanced an understanding that coordination failures may generate a network of externalities that interact so as to produce an underdevelopment trap. So far, these new theoretical insights have not been matched by a sufficient number of empirical studies. The work of Joel Hellman and his co-authors serves as an example of a cross-country study that measures the social costs of state capture. An even rarer example of regional comparison within a country is work by Jolan and Ravallion that examines changes in consumption patterns of rural households in China. They find that the rate of growth of household consumption in wealthier regions is higher than in poorer regions, which they interpret to mean that marginal returns to a household's wealth increase by the same ratio as the average wealth of a district. Thus, the divergent pattern

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is attributed to geographic externalities and not to increasing returns to households' wealth.\textsuperscript{15}

The paucity of empirical work in this area can be explained by the lack of data and difficulty in observing, measuring, and interpreting multinational, national, and sub-national institutional variables that have been kept outside of the neoclassical analysis. It is only recently that indices that measure corruption, the quality of government processes, and the quality of political and economic institutions have started to be compiled in a systematic manner. Hence, such empirical work is primarily at a path-finding, data accumulation stage.

This study is an effort to empirically examine the divergent paths of agricultural reform in two regions of Russia and the reasons behind this divergence. The reasons are traced to the divergent perception of benefits derived from a change in path vs. preservation of the status quo. Path-dependent preservation of Soviet-style structures happens when political and the economic incentives remain fused.

\textit{The Political and the Economic}

The lack of internally consistent and comparable data sets which would allow one to analyze the quality of institutions and their sub-national, national, and international

\textsuperscript{15} The case is presented in detail in Hoff and Stiglitz, "Modern Economic Theory and Development," and in Jyotsna Jalan and Martin Ravallion, "Geographic Poverty Traps? A Macro Model of Consumption Growth in Rural China,"
performance is compounded by yet another problem: poor theoretical understanding of the interaction between economic and political institutions that these variables are often called on to measure. Douglass North stresses that it is the gap between the analysis of economic incentives and the understanding of other major forces that determines social interactions:

In addition, we know too little about political economy. One of the shortcomings of research is a lack of attention to the polity and the problem of aggregating choices through the political system. We simply have no good models of polities in the Third World, transition, or other economies.16

Robert Bates formulates the problem as an inability to explain the supply side of institutional change, of “...what accounts for the willingness of those in control of public bureaucracy to provide [new institutions]”, bringing “political origins of economic development” to the center of the discussion.17 Robert Bates analyzes interactions between the political and the economic in the formation and development of agricultural markets in Africa. He demonstrates that political rationality may fly in the face of the economic one and remain dominant for long periods of time, generating and supporting institutions that impede social and economic development and growth for diverse populations as well as for the society as a whole.

Pranab Bardhan warns of the danger of omitting the political from institutional analysis, since the key explanatory variables may lie in the interaction of power relations and economic imperatives:

If the reformist zealot erred in ignoring the micro foundations of institutions, we in our turn should be careful that our theories of principal-agent games and moral hazard do not cover up the basic, often ugly power relations involved in the phenomena we are studying.18

These are the beginnings of a consensus that patterns of interaction between the political and the economic are important and little understood. The unexplained patterns of inefficient development are grouped under the titles of path dependency or embeddedness.19 The challenge is to find a way to these observations:

While nothing as elegant as a formal dynamic theory is even on the horizon, recognizing that policy enactment is a process in time is the beginning of the political economy we seek.20

Robert Bates stresses the need to incorporate development studies into broader political economic context:

...progress could be made in development economics by extending economic reasoning to the study of organizations. But deeper reflection suggests that so limited a revision would not be sufficient.

18 Bardhan, Economic Theory of Agrarian Institutions, 238.
It suggests instead that development economics must also turn to the study of politics. It must become a branch of political economy.  

Together with development studies, new institutionalist examinations need to be set in a political context:

The new institutionalism originates in economics. To fulfill its own agenda, however, it must move into the study of politics. It needs to take into account the allocation of political power in society and the impact of political system on the structure and performance of economic institutions.

Robert Bates provides examples of new institutional studies that were helpful in explaining micro-level arrangements that protect households and individuals in developing countries from the risk of market transactions, as well as studies that explain macro-level state configurations and interventions that enhance economic successes of the nation by promoting investment in human capital or in strategically important industries. He also points to the deficiency of these explanations: other countries are invited to emulate the success stories, as if explanations of success are a sufficient incentive for states to change their inefficient ways. No analyses of political motives to sustain economic failure are woven into the economic advice.

22 Ibid.
If the importance of politics to the economy ever needed illustration, nowhere has the failure to connect these two parts of the analysis been more disastrous than in the economic advice given to the post-socialist economies. The set of advice known as “The Washington Consensus” was based on the optimistic expectation that an inefficient ideology veils a potentially healthy economy and that “capitalist” transactions based on market pricing and competitive wealth accumulation will start to function as soon as the medicine of shock therapy is administered, without the necessary construction or demolition of specific institutions. In broad terms, these expectations proved adequate for those countries in Eastern Europe where communism was enforced for less than half a century and was not internalized ideologically or economically by the population. They failed to materialize in all the post-Soviet non-Baltic states which had seventy years of socialist experience, and where the population, as it turned out, adapted capitalism to socialist economic interactions, ones based on access rather than market, which will be discussed in detail below.24

The critique of the shortcomings of economic advice given to the post-Soviet countries in general and to Russia in particular stresses the lack of attention to institutional development and to the opportunistic motives behind wealth distribution. Joseph Stiglitz explains the failure of transition strategies by a lack of understanding of market economies on the part of advisers rather than by bad implementation of good policies, and suggests incremental changes that take into account the initial conditions

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24 For more detail on the course of transition in the Former Soviet Union and Eastern Europe see EBRD Transition.
and local transition experience. Serguey Braguinsky suggests that the SLP trinity of goals (stabilization, liberalization, and privatization) has led to a transition not to the market but to a Mafia-type system of control. He suggests a new development paradigm, which he calls ICG-market institutions, promotion of competition, and the increase of the role of local governments.

This second generation’s advice is more conscious of the multi-layered political and economic problems of transition and of the unanticipated ways that solutions to the more evident problems affect the balance of complex social structures. They do not, however, suggest that before going further the advisee needs to be examined, not just from the point of view of the prescriptive optimal state at the end of economic transition, but also from the point of view of the specific economic and political context in which the transition begins.

Chapter 3B: The Burden of the Socialist Legacy

There is a body of literature that deals with the particular issues of post-socialist transition as opposed to other development projects. This section provides an assessment of the contribution made by this literature and of the gaps that need to be filled in order to understand the impact of the socialist past on present-day development of post-socialist countries.


**Etiology of Post-Socialism**

It has been recognized that a disease develops according to a particular pathologic pattern. However, no adequate effort has been made to analyze the symptoms of deficiencies that lead to a particular type of a dysfunctional restructuring after socialism.

Considering how popular health metaphors have been with economic advisers, it is amazing to note that the approach to economic advice was the opposite of the medical one. In medicine, typologies of different illnesses constitute the core of medical study before any practical solutions are offered. In contrast, the business of economic advising initiates its investigation from a model of perfect health. Despite this asymmetry, the economists rush to save ailing economies as if they were equipped with specific knowledge of the pathologies involved. Instead, what they have to offer is a normative picture of health, but no differentiated models of disease to help custom-tailor the treatment.

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Recent transitional experience demonstrated a need for the economic equivalent of etiology, a science that studies "all of the causes of a disease or an abnormal condition." True, all happy countries resemble each other, like the happy families in Anna Karenina, while all unhappy countries are unhappy in their own way. However, similarities of the post-Soviet development as well as similarities of some Asian and African models suggest that, as in medicine, there are common traits that allow for a classification of economic dysfunction on the basis of specific characteristics. The approach taken in this study is that an accurate understanding of these traits is necessary in order to prescribe more specific, and hence more effective, cures.

Case studies that follow the post-Soviet outcomes through time from socialist interactions to those of post-socialism and through government and production hierarchies from the national government to local administration, to managers, and to workers, can shed light on the overall logic of these interactions. More case studies of very specific post-Soviet phenomena – be it the reasons for a flourishing barter system or of the dysfunctionalities of one-industry cities, need to be accumulated to prepare for an informed typology of post-Soviet development. For example, David Woodruff is one of the first to provide a monograph-length study of a particular post-Soviet phenomenon of crowding out of monetary exchanges by barter. A collection of such case studies could eventually add up the etiology of post-socialist economic change.

A Particular Case of Coordination Failure: The Logic of Mutual Betrayal

Examining the underdevelopment trap of Soviet socialism should be the starting point for understanding the ambivalent outcomes of post-socialist development.

In a posthumous publication, Mancur Olson provides one last simple and brilliant insight on the inner workings of social interactions. In "Power and Prosperity," he offers an explanation for the spectacular success of socialism in terms of economic growth at its initial stages followed by a yet more spectacular failure at the end.\(^{30}\) To condense the model to one sentence, it is a story of how first the state betrayed the people, and then the people betrayed the state. In more technical terms, both successes and failures are attributed to the workings of overt and covert coordination mechanisms. This is a special case of coordination failure – a case of willful misinformation that leads to inefficient use of resources.

During the initial stage of "high socialism" the power is concentrated at the top. The autocratic leader supported by coercive structures and the ideological premise of state ownership betrays the pre-announced principles of egalitarian well-being and taxes away almost all of the national output. A large proportion of national revenue is then re-invested into capital assets and this, in addition to cheap labor, allows for the growth of output. Managers who coordinate and manage in this strictly hierarchical structure are

severely punished for non-compliance. An additional incentive for the managers to fulfill their decreed tasks is bureaucratic competition among managers who report on each other to their superiors. This fostered system of mutual surveillance guarantees the national government accurate information about the actual performance of enterprises and of the economy at large. So, at this early brutal stage the dictator manages to align incentives for the system to produce and generate growth.

The second stage is characterized initially by decreased brutality of enforcement and secondly by a plan-induced concentration of production of inputs and outputs into a small number of large enterprises. This change in the strength of enforcement on the one hand and in the concentration of managerial control on the other leads to a change in managerial behavior. The managers give up bureaucratic competition for the sake of bureaucratic collusion. The objective of the collusion is to divert resources that flow through the enterprise both as inputs and as outputs to serve the private needs of management. As other researchers have shown, collusion involves not just economic managers but the local-level political elite as well. Such collusion succeeds because it passes unseen to the top national management, mainly because national planning and resource mobilization is not aligned with local and enterprise-level coordination of production. This major coordination failure makes the government draw plans and allocate resources on the basis of asymmetrical information about input needs and output capacity that has been willfully skewed by the managers. Once bureaucratic/managerial

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30 Mancur Olson, *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships* (New York: Basic
collusion occurs and the central government becomes misinformed about the use of resources, plans are set without sufficient information, inputs are diverted by managers, and output falls. Yet the main socialist premise of state ownership of the means of production mandates that the state continue to invest in the enterprises regardless of information about the use of these resources, because the state is the owner of all assets in the economy.

The soft budget constraint, as described by Kornai, contributes to the separation of the value of inputs from the value and distribution of outputs. The revenue flow from socialist production is reversed: national power holders cannot collect sufficient taxes, since large portions of both inputs and outputs are redistributed among managers, bureaucrats, and some of the workers. Coordination failure leads to institutionalized mismanagement and results in national bankruptcy, which explains the runaway inflation at the end of socialist rule.

How does this misalignment of incentives reflect on the post-socialist development of political and economic interactions between the government and the governed, among different levels of government, and between managers and employees? This study follows the chain of these interactions in one sector and in two districts of Russia, keeping its history of misinformation and double meaning in mind. Here I will try to establish whether the political has been separated from the economic, whether misinformation has

been supplanted by transparency, and whether there is an oblast-specific difference in the preservation of Soviet-style bureaucratic-managerial collusion at the provincial level.

Before starting the analysis, it is important to answer certain questions in more detail: First, what are the unofficial characteristics of socialist transactions? Second, how can these characteristics affect the interactions among producers and administrators?

**Access-Based Power**

As has been discussed, this dynamic interaction between political and economic functions of institutions and the difficulty of separating the two are by no means new subjects:

Once in place, institutions influence subsequent actions. They may have been created for economic reasons; or they may have been founded so as to enhance the fortunes of particular economic interests. But once created, they generate positions of political power and systems of political incentives. ...They thereby shape the way in which economic interests are formed and receive political expression.33

These observations on the accumulation of political power by economic institutions were made in rural Kenya. The distinct socialist pattern of institution building adds one more level of complexity; all Soviet economic institutions were conceived of as both

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33 Bates, *Beyond the Miracle of the Market*, 151-152.
economic and political/ideological. From an ideological standpoint, the state under socialism allocated resources across sectors, guided by a centralized assessment of the common national good. In reality, power holders distributed resources according to their own advantage and to the advantage of their official and unofficial clients and contacts.  

In planned economies, access to resources was not based on property rights – such rights belonged in a somewhat nebulous fashion ‘to the people’ – but on the ability to affect the allocation of resources.  

Theorists of the firm are starting to examine the role of access in power distribution within a firm as being different from power derived from property rights. Rajan and Zingales identify a non-contractual mechanism for allocating power within a company. Access is defined as the ability to work with critical resources. Power derived from access is separate from that derived from ownership or control. The holder of privileged access specializes her human capital to a particular area and thus makes herself valuable to the firm. In an environment where markets and property rights are poorly defined and enforced, access-based power may provide a stronger incentive than property-based power.  

Sociologists are also looking at power under socialism from the point of view of its access-based redistribution. For example, Ledeneva has defined power in the unofficial

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34 For more detail on costs of redistribution in a shortage economy see Kornai, *Economics of Shortage*.  
Soviet blat relationships as the ability to provide the "favor of access" at public expense to a circle of friends and their protégés. One of the main characteristics of this type of access is its reciprocal nature. Having the state assign nominal prices makes monetary valuation of services problematic. Therefore, in order to receive a service promptly, a customer has to entice a service provider with promises of a similar favor of special access in some area where the customer has superior connections or direct access to resources.

In assessing the failures and successes of any transition, it is important to analyze the differences in the goals and set of skills that the managers and the administrators need in order to succeed in an access-based distribution system as opposed to an ownership-based one. Once the inherited skill set that binds post-Soviet managers and the incentives they have for preserving the status quo is understood, it becomes possible to understand how the distinctive logic of post-Soviet institutions tends to remain pronouncedly Soviet despite the new pro-market environment.

In a planned economy, the skills managers need are similar to those required of public administrators. The basis for this skill set is the ability to obtain and redistribute resources. A more skilful and a better-connected manager procures sufficient resources to provide both for the enterprise he is managing and for the unofficial network that

facilitates redistribution. Thus, power and the flow of benefits within the system are not
directly connected to the profitability of the enterprise. Instead, they stem from its ability
to procure and reallocate resources within the network more efficiently than other players,
and to ensure, in turn, a secure source of inputs during the next round of resource
allocation.38

In Soviet agriculture both collective farm managers and local Soviet officials
annually participated in "battles for harvest," a term of art for sowing and harvesting in a
shortage economy. For this annual exercise to be successful, the managers and public
officials had to unite their commodity-specific access to obtain the required amount and
kind of inputs in the short time that nature allows for sowing and harvesting. Procurement
and sales prices did not reflect the scarcity of resources and did not play an important role
in the variety and quantity of accumulated inputs. Speed, volume, and the timeliness of
acquisitions depended on the number and quality of relationships within the network of
service providers and recipients. Networks that allowed for speedy redistribution with
minimal transaction costs constituted the relational capital of both managers and public
officials.39

38 On the interchangeable skill set and roles of Soviet administrators and industrial managers see Hugh, The Soviet
Prefects. For an analysis of "horizontal mobility between positions of political and expert authority" in Soviet
agriculture see Cynthia S. Kaplan, The Party and Agricultural Crisis Management in the USSR (Ithaca: Cornell
University Press, 1987).
39 The term "relational capital" is borrowed from Barry W. Ickes, Peter Murrell, and Randi Ryterman, "End of the
Privatization challenged this role of access as a source of power in the early 1990s. Agricultural reforms that transferred the land and property of collective farms to their employees treated all employees equally, regardless of their positions in the collective farm. From the perspective of collective farm managers, the reform offered the unattractive prospect of divesting themselves of power over an enterprise without receiving any compensation for this divestiture. Public officials were faced with a similar problem. Successful market reforms devalued the relational capital and skills developed during shortage–based redistribution. Post-Soviet administrators were not skilled in the exogenous regulation of industries or in the price-based procurement of inputs.

Production skills of a market-oriented manager were also expected to be different. The often-evoked neoclassical definition of production goals is that they involve the maximization of profits and the minimization of costs so as to generate a flow of benefits to the owners of the enterprise. A manager’s well being depends on his ability to generate the highest possible flow of benefits under a given set of economic and political

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Property allocation was calculated on the basis of salary accumulated over the years of employment at the collective farm. This gave some advantage to employees with higher salaries, a group that included but was not limited to the management. However, with the very high inflation of 1992–1993, the value of property shares was quickly eroded and stopped constituting a significant share in the privatization package.
constraints. Successful management requires an ability to constantly reconfigure production in response to market pressures.

In the contemporary competitive environment, both Soviet managers and administrators run the risk of being replaced by people who are able to conduct successful market transactions. If they want to survive, they would need to invest time and resources in accumulating new skills. Therefore, both managers and administrators have incentives to preserve the status quo in order to hold on to their power.

It soon became clear, however, that, apart from price liberalization, the federal government was not actively pursuing other reform-related transformations, such as subnational institution building. Institutional change, therefore, could be stalled if local power-holders could find a way to adapt old plan-based institutions to the new market-oriented exchanges based on price. "A change in the formal or informal rules that leaves all payoff equations unaffected does not count as an institutional change." 42

To meet the challenge of preserving the relational capital and the positions of power in the system, managers and administrators had to find mechanisms that would help them perpetuate a system based on resource distribution, not on the basis of physical scarcity but on the basis of preferential non-market pricing. They also had to assess whether the

cost of sustaining such a system outweighed its benefits. Institutional economists have noticed that such redistribution is taking place in Russia:

The institutional void in the Russian economy is responsible for the fact that massive extra-market redistribution of the national product is taking place instead of the badly needed market reallocation of factors of production.  

To organize extra-market distribution so that it could successfully contain the “damage” of market pricing and curtailed federal subsidies, the sub-national players had to design new mechanisms or at least adapt old ones to their current needs. This need for innovative distortion mechanisms in conjunction with the weakening federal control led to what Polischuk calls “the “organic growth” model of economic and political institutions”, which means growth without apparent plan or coordination.

How are managers and administrators coping with this challenge in agriculture? What are the specific traits of agricultural production that could make this redistribution exercise a success? The sub-section that follows discusses the institutional constraints specific to agriculture that can prolong access-based distribution among the participants in informal networks.

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44 Ibid.
Why Are Path-Dependent Interventions Possible?

Can massive redistribution succeed in one sector, specifically in agriculture, after price liberalization? To answer this question, one can turn to the model of post-Socialist disorganization put forth by Blanchard and Kremer. According to Blanchard and Kremer, inefficient declines in output during the transition in the short run are the result of the breakup of old contractual ties and bargaining between suppliers and buyers due to asymmetry of information and incomplete contracts. The more numerous and specialized the inputs an enterprise needs, the larger number of traditional relationships with suppliers are likely to be broken and the longer it will take to renegotiate old contracts or to establish new networks. The difficulty in creating new ties with suppliers is compounded by the lack of information on both the ability of the new suppliers to operate in a market environment and their ability and willingness to fulfill contractual obligations. Because of the unknown reliability of suppliers and the fluctuations in the economic environment, coordination problems compounded by the number of suppliers may escalate and lead to the fall in output of a potentially viable enterprise. Therefore, in the short run, the output of the industries that require more inputs declines more steeply as coordination failures in these more complex industries are more likely to occur.

The input needs for large-scale agricultural production in general and for crop production in particular are not complex. In order to resume the annual cycle in the short

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term, a large-scale collective farm already equipped with the necessary machinery from
the time of centralized planning, absolutely needs to purchase only one input—fuel—to
make this equipment operational. Furthermore, this resource is not needed continuously
but discretely, twice a year: during sowing and harvest. If access to fuel during these
periods has been secured, the resulting ability to resume the production cycle removes any
immediate need to restructure.

A simple input provision scheme that redistributes one input twice a year can be
recreated at the sub-national level under the supervision of local government officials. As
will be demonstrated in the empirical part of this study, if the local government chooses
to continue its involvement in the redistribution exercise, it may find that it is within its
means to create institutions to sustain such a distribution.

Why would a local administrator want to participate in this type of redistribution
exercise? There are a number of reasons to choose the interventionist path rather than a
laissez-faire stance. One has to do with the incentives of local administration to preserve
the relevant relational capital and skill mix, examined earlier. The second is a
professional one – interventionism allows an administrator to preserve his administrative
power without drastic restructuring. Subsidized access to resources allows even the most
unprofitable JSCs to maintain their role as social service providers of last resort. By
financing large agricultural producers who then provide services to their employees, local

46 Interviews with 10 collective farm managers, Vsevolozhskii Raion, Leningrad Oblast, 1996-1997, and interviews
administrators can delay restructuring the provision of social services, a reform many are not equipped to face fiscally, politically, or institutionally. Such an arrangement leaves an enterprise in limbo, a space between reform and traditional practices, diminishing incentives to restructure by a prospect of short-term survival.

Another function of provincial governments is the financing of budgetary institutions such as prisons, hospitals, kindergartens, and schools. If these needs are partially covered by barter food deliveries as part of the JSC debt repayment obligation, fundamental restructuring of revenue collection can be delayed as well. It is not well understood why barter is so prevalent in Russia. Theories range from barter being interpreted as a covert cross-subsidization between sectors willfully obscured by the barter nature of exchanges, to barter signaling the dissolution of statehood by highlighting the Russian government’s failure to enforce the use of its currency. It seems that both of these arguments are partially valid. Whatever the reasons for the dominance of barter, once it becomes a reality, according to Barry Ickes, local governments find themselves in a better position than the federal government because it is logistically more convenient to pay the local government in kind, and because it is easier for local governments to use barter payments directly for the provision of social services. Ickes affirms that the ability of the local governments to use barter payments directly explains a de facto priority of

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47 For a discussion of difficulties local governments are likely to face in assuming the provision of social services from industrial enterprises see James Alm, "Social Services and the Fiscal Burden in Russia," Comparative Economic Studies 37, no. 4 (1995): 19-31.

53

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local taxes. Another reason for the priority treatment of local taxes could be the weakness of the federal government.

Thus, the partial revival of old exchange practices allows local governments to supply budget institutions with foodstuffs. This goal can be achieved without having to create new service providing structures the leadership and managerial task local officials are often not equipped to implement. There is, of course, a cost to supporting path-dependent reciprocal contracts in the environment of newly liberated prices with little financial backing by the federal government.

Another reason administrators may want to stay involved in redistribution is the opportunity to seek rents once the sales of agricultural output are re-monopolized by local governments. Parastatals that are the result of this development are described in the empirical part of the study. This pattern of rent seeking is more reminiscent of authoritarian governments in developing countries and their penchant for monopolization of trade in agricultural commodities and as such is not a specific post-Soviet rent-seeking phenomenon.

Before presenting the empirical evidence for the preservation or rejection of the above interactions, the sub-section will review the assessments of agricultural reform made in other studies of Russian agriculture.

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Barry Ickes, presentation in the Davis Center for Russian Studies, Harvard University, Cambridge, MA, October 54
Chapter 3C: Studies of Russian Agricultural Reform: Supply or Demand?

The ten-year history of agrarian reform in Russia can be divided into two stages. The first four years, from 1991 to 1994, was a period when key legislation on agricultural reform was announced and adopted. The Presidential Decree of 1991 turned ownership of collective farms over to their employees, encouraging these new owners to dismantle the collectivist structures and to distribute the land and property among themselves. Those who did not want to farm as individuals were granted the right to sell their land entitlements to more enterprising shareholders at freely negotiated prices. The Decree of 1993 broadened the rights to trade land shares, including the right to sell, mortgage, rent, and exchange land. At the federal level, the government declared its support for individual farmers by making start-up financing available.

The second stage of the reform, from 1994 to the present, can be described as a time of stagnation and decline in the number of individual farms in the countryside, as well as one of decrease in federal support and financing of individual farming. The reformers

1997.


anticipated millions of individual farmers in a matter of years once the legal restrictions were removed. However, as was shown in table 2, the overall number of farmers decreased in 1997, which means that the number of farm closures exceeded the number of newly created farms.

At each of these stages, students of Russian agricultural reform have offered different explanations, first for the slow pace of the reform and then for its stagnation and de facto reversal.

During the initial stage (1991-1994), the most widely accepted explanation for the slowness of the reform could be termed a legal approach. According to this approach, the main reason for the unsatisfactory pace of reform was the absence of an adequately complete legal framework. Specifically, restrictions on land transactions were viewed as the main reason for slow “farmerization.” As a result, proponents of this perception made an effort to promote the passage of the pro-reform legislation. These proponents

52 The reform-promoting legislation was rooted in two fundamental documents: both the Constitution and the Civil Code, adopted in the post-Soviet period, recognize and safeguard private land ownership (Konstituiija Rossiiskoi Federacii [Constitution of the Russian Federation] (December 1993), Grazhdanskii kodeks Rossiiskoi Federacii [Civil Code of the Russian Federation] (October 1994)). One important link that is missing from a complete codification of agricultural reform is a post-Soviet Land Code. The absence of a new Land Code, however, does not constitute a direct hindrance to the reform. The Soviet phase Land Code of the Russian Federation is still operational and allows land ownership as well as the distribution of land to the employees of collective enterprises (Zemel’ni kodex Rossiiskoi federacii [Land Code of the Russian Federation], no. 16 (May 27, 1991)). Furthermore, during much of the studied period the President had the power to veto any legislation presented by the Duma and vowed to use this power in case of the Land Code.

held that, once the legal framework was not just sufficient but complete, the pace of the reform would increase.\textsuperscript{54}

The second explanation for the slow progress of reform could be called the \textit{latifundista} approach. This position held that JSC managers and local authorities slowed the creation of private farms and prevented land distribution. The motive was the desire of "local notables...to appropriate valuable collective property for themselves."\textsuperscript{55} According to this reasoning, JSC managers concealed information from employees about their right to leave the JSCs with land and property shares and provided those who did leave with bad and inconveniently located land.

The policy response to the expected \textit{latifundista} outcome was an information campaign that explained rank-and-file collective farmers their rights. Pro-reform policymakers and their advisers worked to physically distribute land titles to the employees/shareholders in the JSCs.\textsuperscript{56} As time passed, however, there was no sign that land and property had accumulated in the hands of a single owner or a group of owners from among the Soviet rural elite. Nor did the distribution of land titles inspire the collective farm employees to start individual farming \textit{en masse}.

\textsuperscript{54}Experience of agricultural reform in some of the other FSU countries has demonstrated that demand for reform can create sufficient pressure from below to make the government adopt the more radical pro-reform laws. For example, in the three Baltic countries the governments had to remove the moratoria on agricultural land sales. In fact, the Moldovan government was forced into such a removal by the constitutional court. See Roy Prosterman and Tim Hanstad, "Legal Impediments to Effective Land Relations in Eastern Europe and Central Asia," World Bank Technical Paper no. 436 (Washington D.C.: The World Bank, 1999).

During the second phase of reform (1994-1999), analysts realized that insufficient supply of the reform was secondary to a small, barely perceptible demand for change coming from the countryside. The number of rural dwellers willing to start individual production had decreased, despite the distribution of titles and some additional, if timid, pro-reform legislation.57

The explanations then focused on the analysis of low demand. One of the recently popular explanations is "conservatism in the countryside."58

Since this explanation is gaining currency, it is important to address it in some detail. In the above-quoted article Stephen Wegren links the slow pace of reform to the age structure of rural population: "...a weak demographic base is at least a partial cause for the small number of private farms per 1,000 persons." The author argues that rural conservatism is directly linked to the aging of the rural population:

Flowing from the effects of rural demography, it is important to note that attempts to develop a private farming stratum have occurred within the context of rural conservatism.59

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56 A manifestation of this approach is The World Bank Land Reform Implementation Support (LARIS) Project dedicated to the creation of land cadastre "as an information basis for national land policy." The World Bank, Staff Appraisal Report, May 16, 1994.
57 The most influential pro-reform decree adopted after 1994 was Presidential Decree no. 337, O relizacii konstitucionnykh prav grazhdan na zemlyu [On Realization of the Constitutional Rights of Citizens Concerning Land], March 7, 1996.
Since the rural population is old and aging, the author concludes, "in effect, the countryside was demographically unprepared for agrarian reform." A similar explanation for the slow pace of reform can be found in other works.

A conclusive test of the relationship between age structure and propensity to reform is a challenging and complex task as the demographic effects have to be untangled from other factors, such as, political, historical, and legal influences. It is, however, possible to provide a crude test of the relationship between the age of rural population and the pace of the reform, at least to examine if it is as straightforward and observable as the explanation suggests. Table 3 shows a correlation between the share of the rural population above working age (predominantly 55 years for women and 60 years for men) in 13 FSU countries and the indices of agricultural reform compiled by Csaba Csaki and John Nash. In this index, the lower score signifies less reform, domination of large-scale collective agricultural enterprises, direct state financing, and government control of agricultural production. A higher score – up to 10 – means movement towards market-based transactions, individualization of farming, emergence of "efficient financing structures, and

60 Ibid., 6.
existence of efficient public institutions focused on the needs of private land market agriculture.”

If the relationship between age and propensity to reform is as strong and as axiomatic as the reasoning suggests, there should be a negative correlation between the aging of rural population and the pace of reform should be negative. In other words, the data should show that the older the population, the slower reform is observed, or, alternatively, the younger the population (less people over working age), the faster the reform occurs. As Post-Soviet countries formed part of the same state and are heirs to a similar collectivist past, it is possible, to assume that initial conditions are similar. Here it is tested whether, given countries with similar initial conditions, the ones with younger rural populations actually reform faster:

63 For a detailed key to the numerical rating see ibid., 12.
Table 3: Correlation between the Share of Rural Population above Working Age and Indices of Agricultural Reform

<table>
<thead>
<tr>
<th>Country</th>
<th>Share of Rural Population above Working Age (%)</th>
<th>Price and Market Liberalization</th>
<th>Land Reform</th>
<th>Agro-processing and Input Supply</th>
<th>Rural Finance</th>
<th>Institutional Framework</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>11.49</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>25</td>
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<td>Armenia</td>
<td>13.51</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td>Belarus</td>
<td>33.54</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Georgia</td>
<td>20.39</td>
<td>7</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>31</td>
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<tr>
<td>Kazajstán</td>
<td>11.60</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>29</td>
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<tr>
<td>Kyrgyzstan</td>
<td>8.90</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>29</td>
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<td>Moldova</td>
<td>18.68</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>Russia</td>
<td>23.34</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>30</td>
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<tr>
<td>Tajikistan</td>
<td>6.61</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>6.75</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>6.63</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Ukraine</td>
<td>29.31</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>Latvia</td>
<td>22.71</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>38</td>
</tr>
</tbody>
</table>

Correlation between the share of rural population above working age and the reform indices:

| Correlation         | 0.26 | 0.15 | 0.24 | 0.27 | -0.23 | 0.16 |


As Table 3 demonstrates, four out of five measurements of agricultural reform as well as the total reform score show a weak positive correlation with the share of rural population above working age, exactly the opposite of the stated proposition. Even the one negative correlation is a weak one at best.

Table 4 further tests the hypothesis stated in the above quoted paper by Stephen
Wegren on the political economy of private farming in Russia:

If we consider demographic trends among rural males it is clear that prospects for private farming were disadvantaged from the beginning. Quite simply, the cohort of rural males in younger age brackets declined while the cohort of older males increased.

Wegren ties the slow pace of farm creation to the decline in the population of young males in the countryside. No empirical test of this assumption is offered in his paper. Since age-specific data on changes in rural population by gender is not available, we can only compare the total population and the male rural population of 1980 and the latest available national census data (not earlier than 1992 and no later than 1998). Surprisingly, there is a negative correlation between increases in the total population and in the male rural population and all the indices of the reform, except for one instance of a weak positive correlation between the development of an institutional framework and changes in the male rural population.
Table 4: Correlation between Changes in the Rural Population (1980-1997) and Indices of Agricultural Reform in the FSU Countries

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>1.23</td>
<td>1.27</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>25</td>
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<td>Armenia</td>
<td>1.18</td>
<td>1.18</td>
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</tr>
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<td>6</td>
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<td>5</td>
<td>29</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>1.35</td>
<td>1.38</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>29</td>
</tr>
<tr>
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<td>0.97</td>
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<td>6</td>
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<td>5</td>
<td>4</td>
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</tr>
<tr>
<td>Russia</td>
<td>0.95</td>
<td>0.98</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Tajikistan</td>
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<td>1.63</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>1.72</td>
<td>1.69</td>
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<td>2</td>
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<td>1</td>
<td>3</td>
<td>9</td>
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<tr>
<td>Uzbekistan</td>
<td>1.55</td>
<td>1.57</td>
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<td>1</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Ukraine</td>
<td>0.85</td>
<td>0.88</td>
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<td>27</td>
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<tr>
<td>Lithuania</td>
<td>0.86</td>
<td>0.86</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.91</td>
<td>0.91</td>
<td>7</td>
<td>9</td>
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<tr>
<td>Estonia</td>
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<td>10</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>39</td>
</tr>
</tbody>
</table>

Correlation between indices of reform and change in rural population: -0.62, -0.48, -0.54, -0.58, -0.17, -0.52

Correlation between indices of reform and change in rural male population: -0.53, -0.37, -0.46, -0.47, 0.17, -0.38


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The data presented here simply cannot serve as proof that an older and decreasing rural population is more reform-oriented than a younger and growing one. Instead, it does show that, in view of this correlation, axiomatic statements to the contrary, in other words, that a younger rural population spurs reform, need much better evidence than has been provided so far. Indeed, in Latvia, for example, where rural population is almost as old as in Russia and where it is decreasing at an even higher rate, there are no collective farms left, despite the political conservatism of the rural constituency demonstrated time and again in national and local elections. In a reform arrangement where leasing of land to more entrepreneurial farmers by the less enterprising or older ones is allowed, age does not appear to be a good proxy for the support or opposition to individual farming.

The conservatism explanation is equally unsatisfactory. It may mean a number of things, but most likely it indicates that Russian peasants – employees of collective farms – refuse to switch to a more profitable and efficient mode of production primarily because of their conservative rural ways. This line of reasoning contains the danger of taking us back to pre-Schultzian times, when peasant rationality rather than peasant reality led to their being considered different from that of other economic actors.64

The only monograph-length study to date dedicated to the course and outcomes of Russian agricultural reform has been written by Stephen Wegren, and as such deserves to

64 Schultz, _Transforming Traditional Agriculture_.

64
be examined in detail.\textsuperscript{65} The central premise of Stephen Wegren's argument is that the state defined and implemented the reforms from a position of strength. The strong government argument is based on the undeniable fact that the "post-Soviet state has exerted a profound impact on the nature and development of agrarian reform in Russia by influencing the legislative, economic, and social environment."\textsuperscript{66} The fact is that the state defines the legislative and economic environment in almost any country; however, the social environment is disproportionately influenced by the state in a society where livelihood and rules and practices of social interaction have been rigidly controlled by the state for generations. This is equated with the strength of the state in reform implementations. Further, Wegren criticizes the position of other Western analysts who believe that "agrarian reform was not very successful because reform measures were never implemented," calling their reasoning tautological. According to this argument we would know reform had been implemented if it were successful.\textsuperscript{67}

Indeed, the strength of the influence of the state on the development of social interactions cannot be disputed. It is important to point out, however, that there are multiple ways of assessing the level of weakness or strength of the state's efforts to implement a particular reform. For example, one may examine the state's efforts to create and consistently support institutions and organizations that are responsible for the

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{65} Stephen Wegren, \textit{Agriculture and the State in Soviet and Post-Soviet Russia} (Pittsburgh: University of Pittsburgh Press, 1998).
\item \textsuperscript{66} Ibid., 237.
\item \textsuperscript{67} Ibid., 228.
\end{itemize}
\end{footnotesize}
channeling of the reform to the targeted populations. Wegren's monograph does not present convincing evidence in this regard. Actually, the facts that it does present point in the opposite direction, despite the best efforts of the author. They need to be examined in more detail.

Wegren presents legislation on privatization of land and the restructuring of collective enterprises as a sign of the state's strength in reform implementation. While the enactment of pro-reform legislation does demonstrate that the government was strongly committed to a reform agenda and that it codified that commitment, it does not indicate that the state created mechanisms for channeling the reform to the countryside.

Wegren's second argument, presented as evidence of the strength of the post-Soviet federal state in reform implementation, concentrates on the inability of the agrarian lobby to stop the passage of reform legislation:

"...those who argue that the Russian state is weak vastly overstate the political power of the "agrarian lobby" Those who argue that reform was not successful because of the agrarian lobby cannot account for several factual realities. For example, on every single policy issue on which the conservative agrarian lobby and the government disagreed during 1991-1995, the agrarian lobby lost and the government won."

68 For a discussion of support that national government can provide to the communities for reform implementation, see Monica Das Gupta, Helene Grandvoinnet, and Mattia Romani, "State-Community Synergies in Development: Laying the Basis for Collective Action," (paper presented as part of a Series on Social Capital and Community Driven Development, The World Bank, Washington, D.C., June 2000).
While this is again an issue of legislation, not implementation, it is important to point out that the key legal documents pertaining to the reform that were put in to action were Presidential Decrees. These documents included the resolution to privatize collective enterprises and farmland quoted above, the decrees that govern the procedures of privatization, and the decree that allowed for the conversion of privately held plots into private property, to name just a few. These decrees were enacted without the consent or participation of the legislative body (Duma); they were decrees and not laws precisely because the government had failed to pass the pro-reform legislation through the intransigent Duma. In this sense the Duma was very successful in obstructing the passage of laws it considered to be pro-reform and which would have given agricultural reforms more legitimacy. Importantly, as proof of the agrarian lobby's strength, the new Land Code that would codify the right of the owners to sell their land has not been passed by the Duma up to this day, despite numerous government efforts to promote the passage of this cornerstone pro-reform document. These facts are hardly a testimony to the pliability of the agrarian lobby.

Another argument for the strength of the government in reform implementation is the curtailment of federal financing of agriculture. Wegren asserts that agriculture has been discriminated against in comparison to other sectors. First, state financing of other real economy sectors has been curtailed as much, or more than, the financing of agriculture, which, after all, was the main manifestation of passage from socialism to post-socialism.

Second, as will be shown below, this curtailment was not as complete as the author would make us believe. Third, the fact that much of the financing has passed from the national to the sub-national level of the government, despite explicit federal policies to curtail such financing, demonstrates the government's inability to make sub-national bodies comply with the reform agenda, let alone to create pro-reform institutions. This is hardly an indication of strength of the federal government or of its resolve to see the reforms through. Actually, the incentive to implement or hinder the reforms passes to sub-national governments once reform financing has moved to that level, a fiscal fact that is ignored in the study.

Since this study is dedicated to examining post-Soviet collective enterprises, the emphasis is on the part of Wegren's monograph that discusses these actors (the monograph also contains a discussion of individual farming and of Soviet collective farms). The study presents a good review of reform legislation and of the details of the farm reorganization process. What one feels is missing is an effort to examine and interpret the official versions of events and positions, to get a layer deeper and explain the interactions of official and unofficial incentives, positions, and outcomes. This taking of official events at face value is surprising in an author who approaches the issue not as a sector specialist but as a regional scholar with vast experience in both Soviet and Post-Soviet Russia. Such selective surface examination of facts and documents allows Wegren to come to puzzling conclusions about the periodization of the reform.
The first stage of the reform, dated 1992-1993, is accurately marked as the time of adoption of reform legislation and of mandated farm reorganizations. Farm reorganization is justly called cosmetic and the incentives to leave the collective are deemed insufficient, though again the demographic argument, the significant limitations of which have been discussed above, is put forward as one of the main reasons why residents did not leave the farms.

If the interpretation of the first period of reform as a time of impressive legal changes and a much less impressive implementation largely rings true, then interpretation of the second stage as a time of stepped-up efforts at reform comes as a surprise, since the events presented as manifestations of this stepped-up effort are marginal to the reform process.

Wegren presents as evidence a document that was leaked to the press, a policy advice memorandum written by Yeltsin's advisors in March of 1994. The memo's recommendation was to dissolve the freshly privatized collective farms and distribute all land and other assets to small collectives of private farms. Whatever the merit of the advice may be, it has never been implemented. Furthermore, it has never been adopted as an official policy or even publicly debated by the government. According to Wegren himself, the government energetically distanced itself from the leaked document. This is hardly in keeping with a radical policy of accelerated reform, or even with a serious consideration of alternatives to the adopted policies that Wegren seems to suggest were characteristic of the second stage.
Another manifestation of the government’s radical, pro-individual farming stance is found in its promotion of a scheme to advance restructuring of the collective farms, called the Nizhny Novgorod model. The scheme was launched at the end of 1993 with the help of the International Finance Corporation and the British Know-How Fund. It was designed around closed auctions of land and property of collective farms among members of the collective, with the view that auctions would inspire clustering into more viable production units. It is important to point out that this costly experiment, which required the participation of multiple outside consultants, remained just that, an experiment. The number of farms that in the past six years have adopted the Nizhny Novgorod model has not exceeded 200, and the bulk of the model-based privatizations took place in just one oblast—Nizhny Novgorod. This very localized experiment, be it success or failure, can hardly be called a radical measure to step up or accelerate reforms.

From this tenuous evidence the conclusion is made that "...farm privatization was waged as a political campaign to undermine the economic and political power of the old rural elite, the farm managers." The case of an unannounced new policy and of an unsuccessful experiment hardly amounts to a successful political campaign. Nor does it undermine the power of the rural elite. It does underscore the disconnect between the vision of reform that existed in the center from the vision of reform that existed in the provinces. It also underscores the inability of the federal reform-implementing institutions

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70 Ibid., 107.
to shift the balance of power and interactions in favor of market-oriented forms of agricultural production.

Describing state-peasant interactions, Wegren states that the social contract between the rural population and the state has been radically changed. Curtailment of federal financing is presented as one of the main reasons for such a conclusion. However, as mentioned previously, curtailment of state financing was one of the principal differences between socialism and market-based transactions, so in this sense it changed the social contract with the whole country. Second, claims that rural sectors were treated worse than other sectors are not substantiated by facts. The example of such treatment provided in the text is a write-off of debts and centralized subsidization of industrial enterprises carried out by the Chenomyrdin government in 1992. While this episode was indeed important in briefly reintroducing a soft budget constraint in a centralized manner for the industry, it was unique. Centralized blanket subsidies to industry were not repeated after 1992, while writing off the debts of agricultural producers to the state was an annual exercise until 1998.

A list of the most important documents that provided subsidization or credit write-offs to agriculture by the federal government is provided in annex 3; the crediting and credit-rescheduling mechanisms and practices are described in Chapter 4C. Here it is sufficient to point out that currently, the sum of rescheduled agricultural debt constitutes approximately Rb. 38 billion of denominated roubles (compare to the size of LO and SO
total budget expenditure in tables 12 and 13). Effectively, almost all credit granted by the federal government to agriculture between 1992 and 1998 has been either written off or forgiven.

This continuation of Soviet practices is the result of the government giving in to pressure from the agrarian lobby and lacking the political will to tackle a real, if painful, restructuring of collective enterprises. This is hardly a demonstration of stepped-up, pro-reform actions. Nor do these facts square with the idea of a rapid termination of the social contract. Surprisingly, these important episodes receive no mention in the monograph that otherwise discusses legal documents in much detail.

While a list of how much agriculture has failed to repay to the state is missing, the list of how much the state has failed to give to agriculture is available. Wegren describes in detail (p. 121) how much the new subsidies to agriculture fell short of the budgeted promises. These failures were the function of a shortfall in revenue rather than a conscious anti-peasant stance, as almost all subsidization of the real sector decreased after the government realized that the promises fuelled by Soviet nostalgia and political bargaining were unsustainable. Of course, with price liberalization, the federal government did not cover all the costs of very inefficient enterprises, and of course support has diminished since Soviet times. However, this curtailment and diminution were definitely much more timid than the announced ambition of viable independent private farming or of hard budget constraint-based financing.
Wegren also points to the curtailment of state capital investment in agriculture, presenting data on the shortfall of real disbursements compared to budgeted allocations. The reason is the same – a budget deficit and unrealistic planning. But the question that arises is, if large scale state financing continued, how would the collective enterprises know that anything had changed since Brezhnev? Here Wegren mentions the shift of much of the financing responsibilities from the federal to the local government. He does not interpret this shift as a shift of reform initiatives to the sub-national level. As will be argued below, it was the sub-national government that by the middle of the reform decade started making decisions about whether or not it wanted to underwrite the previously accepted social contract.

Another broken piece of the social contract that is examined by Wegren is the growing gap between rural and urban wages. Again, the comparison largely ignores the non-wage incomes of rural population that comes from private agricultural production. Karl-Eugen Wadekin, Zhores Medvedev, and other authoritative sources have described this complementary role of private plot income for Soviet rural households on Soviet agriculture. As will be shown in this study, the amount of revenue form private plots may vastly outweigh the agricultural wages. Furthermore, the new owners' rights allow the households of the employees of the collective enterprises to lay an additional claim on the JSC's output, and, in a bizarre post-Soviet twist, to expect and receive dividends paid out
in subsidized inputs provided by unprofitable enterprises. None of this complex and interesting dynamic finds its way to the pages of the study, as the examination of household income stops with the recitation of the decline in official wages.

It is exactly the discussion of the multi-layered nature of the post-social social contract that one feels is missing. It is not a story of a single-minded government destroying a social contract with rural dwellers. Rather, it is the story of a federal government gradually divesting itself of its role as financial intermediary and input provider to the market and to the sub-national government. This is especially true if the sub-national government is ready to pick up some of the burden and some of the benefit of rural support that comes with it. This vertical shift of decision making about the prolongation of the social contract to the sub-national level provided for a multiplicity of contracts and multiplicity of outcomes. It is such a multi-layered reality that is sorely absent in Wegren’s study.

As Wegren states in the beginning, his unit of analysis is the state. Maybe because the unit of analysis is so large and encompassing, the finer details of its interactions with the producer do not come to the surface.

This study’s unit of analysis is a collective farm-turned JSC. As was stated previously, the JSC is analyzed as a part of a larger firm–like structure. Within this

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71 Karl-Eugen Wadekin, The Private Sector in Soviet Agriculture (Berkeley: University of California Press, 1973), and

74

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structure, individual actors behave rationally and seek to maximize profits. However, as will be demonstrated in the empirical part of the study, the profit maximization of individual actors affiliated with the JSC develops along two different paths – one market oriented and the other access based. The enterprises that follow the second path serve primarily to provide their constituencies with access to resources and services—such constituencies including the sub-national administration, the managers of the enterprise, and its employees. The choice of path is driven by budget constraints imposed on the enterprise by the agricultural policies of the sub-national administration.

Conclusions to Chapter 3

The literature relied on to formulate this understanding of the events follows three lines of inquiry. The first is institutional economics and its recent successor, modern economic theory. The second is studies of post-socialist transition, and the third is studies in Soviet and Russian agricultural policies.

The first line of thought is important to this analysis because it allows for an examination of the role of institutions in facilitating or hindering the efficiency of production. The neoclassical premise that the efficient outcome wins in the process of development has evolved to allow for the possibility of failure, an inefficient outcome that represents a sub-optimal equilibrium. The cause of the inefficient result, an underdevelopment trap, is attributed to coordination failures, which can be traced back to,


75
among other causes, historic events that have a ripple effect on the development of interactions in the process of production. These include gradual historic developments that direct producers away from the optimum. This interpretation of development is helpful in examining the post-socialist transformations, because it provides a framework for understanding the stability of sub-optimal equilibria in post-socialist economic and political interactions. It also helps to frame the questions of what developments allow a country or part of a country to shift to a more efficient trajectory, while another county, region, or economic sector continues along a path of inefficiency. This framework also makes it possible to examine questions concerning state policy interventions in terms of shallow and deep reforms. In the part that follows I will try to assess if the involvement of Russian federal government in agricultural reforms led to deep or shallow changes on the ground.

A subset of literature examines complex relationships between the political and the economic in the process of development. It underscores the need to examine political and economic processes, not as separable self-contained sequences of events, but as dynamically interwoven. This understanding prompted the inclusion of a vertical dimension in this study, and complement the analysis of economic transactions with the analysis of federal and local administrations.

Understanding the importance of political institutions and path-dependent multiple equilibria outcomes in economic development provides a framework for assessing the
impact of socialist economic relations on shaping post-socialist outcomes. From the premise that socialist institutions are unique in the pervasiveness of state participation, the idea was advanced that socialist interactions and coordination failures are specific enough to deserve a separate study. This is not unlike the study of symptoms of a disease with a hope that this study specific of pathology will be valuable in the search for a cure. Using the logic of medicine is not unlike using the logic of biology’s evolutionary theory for modern economic theory, an analogy suggested by Karla Hoff.72

A particular Soviet brand of coordination failure was examined by Mancur Olson, who points to a lack of trust between the government and the governed, as well as willful misinformation between these two parties, as the reason for the collapse of socialism. Or, as proponents of modern economic theory would formulate it, for the underdevelopment trap that destroyed both the socialist economy and socialist polity.

As the next step, theoretical and empirical literature that identifies sources of power in a society and a firm were examined and applied to a socialist context. A study by Ledeneva points to access to resources as the source of power in the system of reciprocal exchanges that flourished under socialism. A model of interactions within a firm constructed by Rajan and Zingales pointed to access as a source of power, separate from ownership and control. Building on these insights, sources of power in a planned economy were identified. Power under socialism was found to be based on access to

72 Hoff and Stiglitz, Modern Economic Theory.
resources and not on ownership or the right to enjoy the residual flow of benefits; this is because ownership is dispersed and belongs to a state that cannot control it. Access to resources is determined by a person’s position in official and unofficial hierarchies. The danger then, is that this characteristic socialist access-based power can permeate post-socialist contexts if the reforms are not deep enough.

A model of post-socialist disorganization by Blandchard and Kremer helped formulate sector-specific reasons that make access-based power easier to preserve in agriculture than in other sectors of economy. The reason is the complexity of inputs: the lower the complexity of inputs, the easier it is to continue with the administered distribution of resources at the sub-national level, even after nationwide price liberalization. Managed distribution of resources in agriculture, particularly in crop production, characterized by discrete seasonal need for a limited number of inputs, is easier to achieve than distribution in other sectors where the need for inputs is continuous and the number of required inputs is higher. These insights will be used to examine sub-national agricultural policies as they evolve in two different provinces of Russia.

Finally, the literature that takes stock of agricultural reform in Russia was presented. For the purpose of this analysis, reform implementation was divided into two periods, the first period of more active effort on the part of the state and of the more impressive outcomes and the second of diminished state effort and diminished success in reform implementation. It was observed that during the first period the analysts focused on the
supply side of the reform with a special attention to the insufficiency of the agricultural reform legislation and to the lack of legal safeguards against potential predatory behavior by managers. These supply-side deficiencies were thought to be the reasons for the slow pace of the reform. During the second period the research concentrated on analyzing reasons behind the poor demand for reforms. This inquiry brought about a hypothesis that old age among rural dwellers is one reason for the lack of enthusiasm for individual farming. It was concluded that available evidence was not sufficient to support it.

The only monograph-length discussion of the outcomes of Russian agricultural reform was studied in more detail. While this study was found very helpful as an outline of the legislation and the procedures of the reform, the interpretation of the Russian federal government as holding a strong position in the current Russian agricultural reforms appeared unfounded. This interpretation is not helpful in explaining the failure of the government to introduce broad-based individual farming in the country or in explaining the divergent pro- and anti-reform policies observed at the provincial level.

These insights from both economic and political science literature will guide the empirical part of the study. In Chapter 4 the course and outcomes of agricultural reforms at the national and the sub-national levels are examined.
Chapter 4: Reforms and the State

Chapter 4A: Reform Implementation and the State

Chapter 4 will provide an overview of the government and political bodies that influenced agricultural policies and examine their interactions. The institutions created by the national and sub-national governments to carry out agricultural policies will be examined and their relative effects on the actual behavior of agricultural producers assessed.

One fact on which observers of Russian agricultural reform can agree is that radical legal changes, such as transfer of ownership of land and assets to the employees of collective agricultural enterprises and the legalization of individual farming, were not matched by actual changes in agricultural production. To understand the reasons for this disconnect, it is necessary to analyze the stated and observed roles of the institutions created for channeling the reforms.

The process starts by looking at the experience of another Russian government in carrying out agricultural reforms aimed at introducing individual farming in Russia. The difference in the historical circumstance is vast and thus the parallel is imperfect. In examining the Stolypin reforms I primarily concentrate on the sequences of the reform and on methods used to channel the reform to targeted populations. This experience is then compared to reform-related institution building undertaken by post-Soviet Russian governments.
The Stolypin Reforms: Institutions and Implementation

In 1906 the Stolypin reforms were launched in Russia. Despite the differences between communal and collective agriculture, in broad terms, the goals of the Stolypin and the current reforms were similar: breaking up collective land ownership and introducing broad-scale commercial individual farming.¹

This is by no means a comprehensive account of the Stolypin reforms. The purpose of this exercise is to narrowly follow the creation by the national government of reform implementing institutions and the development of these institutions in the course of the reforms.² The examination begins with identifying the role of the national government in the following areas:

- Design of the reform agenda
- Transformation of the existing institutions that administer national and regional agriculture into reform-friendly entities
- Creation of new institutions at different governmental levels for the implementation and monitoring of the reform process

¹ The reforms were named after Petr Stolypin, the Minister of Interior and, as of July 1906, also the Prime Minister of Russia and a forceful champion of the reforms.
² The analysis of institutions and organizations designed during the Stolypin reform is primarily based on George Yaney, The Urge to Mobilize Agrarian Reform in Russia, 1861-1930 (Urbana: University of Illinois Press, 1982); Jeffrey Burds, Peasant Dreams and Market Politics, Peasant Migration and the Russian Village, 1861-1905 (Pittsburgh: University of Pittsburgh Press, 1998); Esther Kingston-Mann and Timothy Mixter, eds., Peasant Economy, Culture, and Politics of European Russia, 1800-1921 (Princeton: Princeton University Press, 1991); and
• Creation of mechanisms for horizontal and vertical interaction and coordination among various agencies involved in the reform

Table 5 summarizes some of the measures and channels created by the national government to prepare and implement the Stolypin reforms.

At the planning stage, the history of control over the reform agenda between the Ministry of Interior (MVD) and the Ministry of Agriculture (MZ) is an account of idiosyncratic events, coincidences, and inter-ministerial fights. However, once control over the government passed to the Minister of Interior Petr Stolypin, who as of 1906 combined this post with that of Prime Minister, the issue of distribution of control between the two ministries was resolved. Despite the advantageous position of the MVD under the new premiership, a number of collegial inter-ministerial structures for the coordination of the reform effort were maintained.

The preparatory stage of the reform was marked by a series of bottom-up conferences organized by the administration of the Prime Minister Witte at the zemstvo (local), the uezd (district), and the gubernia (provincial) levels. To prepare the agenda for such conferences, 618 committees were created across the Empire. The committees were designed to include representatives of various groups affected by the reforms, such as the landed gentry, representatives of peasant communes, and local and provincial

David Macey, Government and Peasant in Russia, 1861-1906, The Prehistory of the Stolypin Reform (DeKalb: 82

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administration. These committees were to formulate their constituents' positions on issues associated with the introduction of individual farming and to submit their findings as a basis for conferences carried out at different administrative levels. The conclusions of the conferences held by a lower administrative unit—a zemstvo or an uezd—were to inform the agenda of conferences held at higher administrative levels. Not all the committees were equally functional, effective, or well timed. Nevertheless, reports of committees were used and alluded to by the designers of the reform agenda.

Another important reform-related policy aimed at neutralizing the financial and administrative actors who had built-in incentives to obstruct reform implementation. For example, an effort was made to neutralize the Peasant Bank, an organization whose institutional interests lay in the preservation of collective responsibility of peasant communes for the Bank loans, a more secure loan-repayment guarantee than the guarantees the newly created individual farmers were capable of providing. The Bank was mandated to lower its interest rates below profitability, which made the Bank dependent on the government for subsidies and more agreeable to the government agenda.

A set of incentives was designed to change the mode of interaction between land captains and peasants. Traditionally, land captains came from local gentry. Their judicial rights over peasants in their district were vast, poorly defined, and poorly controlled. The requirement of noble birth for land captains was dropped before the reforms began to be
implemented; as a result any qualified individual could be selected to the post. The functions of a land captain were redefined to prominently include provision of information to peasants on the current legislation on agricultural reform, as well as practical assistance with land resettlement. To make this assistance more qualified, land captains were requested to go through a special training; no training had previously been required. The judicial and legislative power of land captains in their district was at first curtailed and by 1912 had been eliminated. In less than a decade the all-powerful ruler over peasants in a district was transformed into a bureaucrat, a salaried agent of the MVD, with a specific place in the bureaucratic chain, that of a liaison between the Land Settlement Commissions and the peasants. This transformation did not take place without open or covert resistance on the part of land captains. However, it is important to note the effort the government made to change the incentive structure of the person who served as the closest government contact with the peasant commune. During these reforms the chain of command from the MVD to the land captains was strengthened, control was increased by frequent inspections from the Land Section of the MVD, powers of the land captains were curtailed and better defined, and the land captains’ skills were sharpened through training. Relaxation of the nobility requirement and bureaucratization of the position gradually changed the social profile of the average land captain from a local nobleman to a more pragmatic commoner who was at least a bureaucrat and at best a professional.

Besides consciously redefining the role of existing institutions, authorities created
new ones specifically to implement the reform. Most of these structures were Land Settlement Commissions. Land Settlement Commissions were established at the uezd level and coordinated by the gubernia level Committees. These Committees in turn were supervised by the National Land Committee, which was chaired by the MZ. It is important to note that other ministries such as the Ministry of Finance, which supervised the Peasant Bank, and the MVD, whose Land Section was dedicated specifically to reform implementation, were closely involved in the operations of the National Land Committee. The Committee provided them with a forum to coordinate pro-reform policies and actions.

The uezd-level Land Commissions both promoted and implemented reforms. As reform-promoting agencies, Land Commissions provided information first to the peasant communes and later to individual peasants about national reform policies that affected their interests. They also provided bottom-up information, reporting to the provincial Land Committees about the failures or successes of the implemented measures. Practically, Land Commissions assisted peasants with the drawing of resettlement plans, with land surveillance and delineation, and with interactions with the Peasant Bank. Land Committees were also responsible for the disbursement of subsidies for land resettlement.

The Commissions were composed of elected officials and salaried employees, which, at least theoretically, provided for broad representation and popular control on one hand and professional quality services on the other. There were reports of inefficiencies in
the operation of Land Commissions as well as cases of misrepresentation of the scale and pace of the reform to the higher officials. However, students of the reform find that over the life of the reforms the operation of the Commissions improved. George Yaney found that as reforms progressed, Land Commissions supervised by the Committees were able to expand and modify the services they provided to the peasants in line with the changing needs of the maturing reform. For example, training courses in individual farming were organized for the peasants at the zemstvo level. Extension services were provided by the Commissions which started to hire agronomists and other agricultural specialists for this purpose. Over time, the Land Commissions, rather than becoming more distant and less relevant, were found able to adjust their structure and services to the actual needs of the reform. As a result, by the early summer of 1914 "Land settlement commissions were working far more efficiently than in the early years, and they were responding to peasant needs with much finer sensitivity."

Local-level assistance to peasants in the reform process became more qualified as well. The number of agricultural specialists commissioned by the MZ to assist peasants in practical matters of land delineation and extension services increased. By 1914 the army of specialists trained and funded to aid peasants in various land settlement and improvement projects included 7,000 surveyors, 700 hydrographic engineers, and 1600 agronomists.4

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3 Yaney, The Urge to Mobilize, 399.

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Over the life of the reform horizontal coordination between the reform-implementing ministries and vertical coordination between the national ministries and their local agencies both grew stronger. If the former was described as a lucky combination of personalities of various Ministers, their interests, and circumstances⁴, the latter was a result of cultivated relationships, control, demand for feedback in reports, and specially organized conferences. It is important to point out that the local reform-implementing agencies, specifically the Land Commissions, continued under the control of the ministries. They were not hijacked by the gentry, despite a large part of the nobility’s forceful resistance to the spirit and progress of the reform.

⁴ Ibid., 156-161.
⁵ One can make an argument, after James M. Buchanan and Gordon Tullock, *The Calculus of Consent, Logical Foundations of Constitutional Democracy*, 1969 (Ann Arbor: University of Michigan Press, 1962) that the reform agenda could have been energized by competing and overlapping responsibilities of some of the ministries.
Table 5: Institutional Structure of the Stolypin Reform

<table>
<thead>
<tr>
<th>Year</th>
<th>Officials/Institution</th>
<th>Administrative Level and Subordination</th>
<th>Powers and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation for the Reform</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1902-1905</td>
<td>Witte’s Conferences on the needs of agriculture</td>
<td>Zemstvo (local), uezd (district), gubernia (province) and national levels</td>
<td>618 committees set up to create a bottom-up agenda for a national conference on the needs of agriculture. Reports of the uezd conferences sent to the gubernia committees serving as background material. Findings of the committees constituted the basis for the pro-reform legislation.</td>
</tr>
<tr>
<td><strong>Reformed old institutions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1889-1917</td>
<td>Land Captain (Zemski Nachalnik)</td>
<td>Level: <em>uchastok</em> (comparable to district [raion]) A salaried agent of the MVD*</td>
<td>Pre-reform: broad executive, judicial, and legislative powers over the peasants of the <em>volost</em>; governs <em>de facto</em> unsupervised</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pre-reform: was to be from local gentry</td>
<td>1906-1912: Judicial and legislative powers diminished, executive powers limited; frequently inspected by officials from the MVD's land section.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1906-1917: any qualified individual</td>
<td>• Charged with assisting Land Settlement Commissions with informing peasants on the benefits of the reform, assisting peasants in judicial and land settlement issues</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1909: all land captains received a special training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1912: judicial and legislative powers removed, position bureaucratized, made accountable and subordinate to the MVD superiors.</td>
</tr>
<tr>
<td>Year</td>
<td>Institution</td>
<td>Level/Structure</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1882-1917</td>
<td>The Peasant Land Bank (Zemsky Bank)</td>
<td>Level: national office with 30 sub-national sections (abt. 1 per 2 gubernias)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subordinate to the MF**</td>
<td></td>
</tr>
<tr>
<td>1882-1906</td>
<td></td>
<td>Semi-autonomous self-financing organization</td>
<td></td>
</tr>
<tr>
<td>1908</td>
<td></td>
<td>Dependent on state subsidies</td>
<td></td>
</tr>
<tr>
<td>1882-1885</td>
<td>financial intermediary in sales of estate land to peasants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1885</td>
<td>permission to buy estate land and resell to peasants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1908</td>
<td>bank forced to take on land settlement - temporary agencies (otdelenija) sent to the Bank sections to force the Bank to sell land not to villages but to individuals. Temporary agencies became a permanent part of the local Bank operations. Interest rates on Bank loans were lowered below profitability and state subsidization was introduced. The Bank's revenue was made dependent on its compliance with the reform agenda.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**New reform-related institutions**

<table>
<thead>
<tr>
<th>Year</th>
<th>Institution</th>
<th>Operational at the uezd level, coordinated by gubernia committees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1906-1917</td>
<td>Land Settlement Commissions</td>
<td>National land committee chaired by the MZ***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinated a joined effort of the MJ**** (survey section), MF (peasant bank), MVD (zemstvos)</td>
</tr>
<tr>
<td></td>
<td>Members of the committee-half elected, half ex officio.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Represented all the key stakeholders: volost and uezd administration, peasant representatives, representatives of the gentry.</td>
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</tr>
<tr>
<td></td>
<td><strong>Initial goals:</strong></td>
<td><strong>Inform the peasants about the goals and benefits of the reform</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Drawing the resettlement plans for peasant applicants</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Assist peasants in surveying and dividing land</strong></td>
</tr>
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<td></td>
<td></td>
<td><strong>Help peasant bank purchase land and sell it to peasant applicants</strong></td>
</tr>
<tr>
<td></td>
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<td><strong>Disbursing subsidies for land settlement</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Evolution of goals:</strong></td>
<td><strong>organizations of the land settlement projects</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>vertical and horizontal coordination of the reform process</strong></td>
</tr>
</tbody>
</table>

89
<table>
<thead>
<tr>
<th>1906-1914</th>
<th>Inspection Section of the MZ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conferences of theuezd officials involved with the reform</td>
</tr>
<tr>
<td></td>
<td>Exemplary farms</td>
</tr>
<tr>
<td></td>
<td>Extension services</td>
</tr>
</tbody>
</table>

- Constant supervision of the reform process in all European gubernias
- Conferences of local officials were carried out and served as a basis for the national-level legal documents that were enacted as adjustments of the reform process
- Dissemination of best practices
- Peasants taken to exemplary farms to learn from best practices
- Extension services and agricultural education schools set up at the uezd level

Source: Yaney, George *The Urge to Mobilize Agrarian Reform in Russia, 1861-1930,* University of Illinois Press, Urbana, 1982

* MVD-the Ministry of Internal Affairs (Ministerstvo Vnutrennich Del)
**MF- The Ministry of Finance (Ministerstvo Financov)
***MZ - Ministerstvo Zemledelija; 1905-1915 called the Chief Administration of Land Settlement and Agriculture.
This study is not the place to pronounce the Stolypin reforms a success or a failure. Extensive literature is dedicated to the assessment of various aspects of this unfinished attempt to farmerize Russia. However, the assassination of Stolypin in 1911 deprived the reforms of a charismatic leader and the First World War brought them to an unplanned end.

Looking at the Stolypin reforms as a development project, one can say that, in modern development parlance, the reforms were "on the right track": the rate of growth in the amount of land and the number peasants involved in the reform was increasing annually. The number of petitions for land settlement assistance submitted by peasants to Land Settlement Commissions has increased from 220,000 in 1907 to 1.1 million in 1913. In 1907 360,000 acres were subject to land settlement; in 1913 this number grew to eight million. Finally, institutions that were created to implement the reforms proved to be viable. They continued to serve their clients - the Russian peasants, adjusting the provision of services to their needs and expanding the menu of these services as reforms progressed toward increased professionalism.

Current Reforms: Institutions and Implementation

The plan to create a similar table to discuss agencies created by the government for implementing the current agricultural reforms failed due to the astounding lack of reform-supporting institutions designed for the purpose, as well as of other efforts at

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6 See for example Macey, Government and Peasant.
reform implementation. As mentioned before, the government decreed Russian agricultural reform, with no legal approval from the Duma. The same was true of the Stolypin reform. These reforms, the most radical in Russia, were launched on November 9, 1906 by a decree that bore the most uneventful title imaginable: "On Amendments to Certain Clauses of the Acting Law Pertaining to Peasant Land Holding and Land Use." However, as previously discussed, these reforms were preceded by wide-ranging, government-sponsored debates about the scale and direction of the reform. Nothing similar has been initiated by modern reformers. True, one could argue that the political situation in early 90s was very volatile and that organization of such a debate could have contributed to further destabilization. But the situation was no less volatile in 1906. The Revolution of 1905 was still raging and terrorism directed against the government was in full swing: Stolypin himself became a victim in 1911. Yet the government had the ability and will to organize dissemination of the reform's ideas and practices as well as collect information about the course of reform implementation.

In the early 1990s the new Russian government, headed by then-popular president Boris Yeltsin, had enough support to initiate a discussion in a new, democratic fashion on the subject that was going to affect millions of rural Russians. At a minimum this was an effort to create institutions that would stand ready to channel the reforms from Moscow to the villages.

In reality, the debate that should have been dedicated to the reforms and sponsored by the government never took place. The reform implementing structures, as is shown
below, were narrowly defined and weakly coordinated. The reason for such an institutional void was not absence of opportunity at a time that was called "a window of opportunity" by economic advisors. The reason was that opportunity was believed to lie elsewhere. The advice that the first Russian reformer's cabinet received and the policies that it adopted were based on an assumption that market forces were lying dormant, suppressed by socialist structures, and that a viable and efficient market would unfold once the pressure was removed. The role of the government in this model was to create new legal constraints and lay down transparent rules of market interactions. As discussed briefly previously, these assumptions were based on centuries of economic thinking and decades of economic advice tested in market and semi-market environments. The idea of the invisible hand as a market creator and primary institution builder was too tempting to let pass.

The goal of this study is not to contribute to a voluminous debate on gradualism vs. shock therapy. Rather, it is to analyze the forces that make the old, inefficient institutions a tempting alternative to the more efficient market institutions and to point to the structures that make their operation possible in the new environment. Examining the origins of survival of these old institutions, it is important to note that the concept of "a window of opportunity" meant different things to different players. For the first post-socialist Russian government and its advisers, it meant introduction of good laws combined with laissez-faire governance. For the groups that judged these new rules to be dangerous to their position and well being, it meant absence of enforcement of the reforms by the government. The old structures remained a practical reality, while the new
rules remained just that, rules, which, with some skill and imagination, could be evaded. For Soviet-trained officials, rule dodgers par excellence, this was familiar ground.

As discussed previously, the government went ahead and created rules for land transactions. The advice the government received was that creation of such a legal structure was a reform-implementing act in itself, as the ability to transact with land will in turn lead to the creation of markets for land, credit, and agricultural products. Important as the creation of a legal infrastructure might have been, there was no advice given on how to tend to the more mundane and practical side of the reform—the setting up of sub-national structures that would implement the reform-related government decisions on the ground.

Surprisingly, the federal structures with national branches that were created specifically to implement reforms were set up at a time when Russia was a Soviet Socialist Republic, before the breakup of the Soviet Union. While the Soviet Socialist Russian Federation was headed by the same man, Boris Yeltsin, it was run by a pre-reform government, the one that did not yet have the benefit of the Western advice and assistance it received after the dissolution of the USSR. It was the pre-official reform Russian government that started radical changes in the countryside.

First, the last Soviet government managed to pass radical pro-reform laws through the Supreme Soviet. Like the Duma after it, the Supreme Soviet was largely composed of people that stood to loose from the introduction of market transactions and was opposed
to any legislation that undermined state-managed distribution and introduced market
transactions. Don Van Atta briefly describes the effort, skill, and compromise required on
the part of the reformers to pass the laws through the Soviet, a feat the government of
independent Russia never managed to achieve.7 The right to own and rent land was
adopted in 1990 abolished state monopoly on land, allowing both individuals and legal
entities to lease land for up to fifty years. The "Law on Ownership," also passed in 1990,
allowed private land ownership. Finally, "The Law on Peasant Farms" adopted by the
Council of People's Deputies of the Soviet Russian Federation on January 1, 1991,
allowed the employees of the collective farms to leave the collective with land and
property shares. In scope and scale this dramatic lawmaking was not surpassed even in
post-Soviet times.

Second, the pre-independence government went about establishing agencies that
were to make these laws a reality.

AKKOR

The Resolution of the Council of Ministers of the Russian Federation "On Support
to the Development of Peasant Farms and Associations, Unions, and Cooperatives"
charged the Ministry of Agriculture in cooperation with the newly created Association of
Peasant Farms and Agricultural Cooperatives (AKKOR) with reform implementation

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7 Donald Van Atta, "Agrarian Reform in Post-Soviet Russia," Post-Soviet Affairs 10, no. 2 (1994): 159-190, and
conversations with Eugenia Serova, one of the authors of the pro-reform legislation.
tasks. The main tasks were to create a Land Fund for distribution of land to individual farmers, to assist employees of the collective farms in restructuring their farms, and to channel financial assistance to newly created farmers. AKKOR was assigned to be a state agency for the distribution of credits and subsidies to individual farmers.

In addition, all other ministries associated with agriculture were ordered to assist in farmerization. The Ministry of Industry, together with the Academy of Sciences, was to design and produce equipment more compatible with small-scale agriculture than the heavy machinery they were producing. A host of ministries and departments responsible for food procurement and processing were to assist individual farmers in processing and selling their output, and the Ministry of Information was to produce literature to educate farmers about individual farming. It is ironic that one of the most radical of the Soviet legal documents aimed at recreating the class the Soviet power tried to eradicate is also one of the last examples of Soviet management style. The resolution was adopted before price liberalization, at a time when industries could be commanded to start producing things and the thought of how the set target would be financed was secondary to the announced government need.

The grand plans of new custom-ordered equipment and new state-financed inventions for agriculture never materialized. Nor could they. However, the parts of the

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resolution containing the elements of new reform channeling mechanisms were not realized to their full potential either. This was not because new and better arrangements were invented, but because the few that were established were not fostered.

The first mechanism created was AKKOR, a non-governmental association with government ties. Created in 1989 by pro-reform city intelligentsia and reform-minded collective farm managers and specialists, AKKOR became popular and established branches in a number of provinces. The government decision to use AKKOR to channel government funds seemed a clever way of using what was at that time one of the few non-government agencies in the country to distribute resources to the regions. This avoided the traditional, corrupt, and cumbersome Soviet machinery set up for the subsidization of collective farming. As it turned out, the arrangement failed for two reasons: first, AKKOR, an organization that had no experience in anything, let alone financial intermediation, was directed to undertake the huge task of subsidizing and crediting individual farming in all of Russia. Soon accusations ranging from incompetence to corruption arose. Yet, in the first three years of reform, AKKOR succeeded in distributing funds to individual farmers all over Russia. The real problems started when the government stopped financing individual farming. Wegren cites AKKOR data showing that state support to agricultural producers in real terms fell from an average of Rb 30,000 per individual farm in 1990 to Rb. 1,000 in 1993! This policy shift effectively destroyed the influence of AKKOR in the countryside. All the energies of

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9 For more detail see Van Atta, "Agrarian Reform and Farm Restructuring."
the organization were dedicated to credit disbursements, not creating an independent political agenda and constituency, which, one can say with hindsight, was a fatal mistake. The peasants blamed the elimination of credits partly on AKKOR, hence its leaders wound up discredited and suspected of using funds for other purposes.

Currently local branches of AKKOR continue to exist, but their role varies widely. Any influence they may have is achieved by local AKKOR leaders, not nationally coordinated AKKOR and government policies. In both districts of the study AKKOR continues to operate and make a marginal difference in the lives of some individual farmers. In LO, AKKOR leaders are active in organizing regional farm fairs and exchanges with Finnish and other Western farmers. The latter is viewed by the rank and file farmers as self-serving, while the former is regarded with respect.

In the Engels raion of the Saratov Oblast the local AKKOR chairman, an active young entrepreneur, is working as a marketing intermediary for individual farmers, a service for which he is collecting a fee. He is also trying to mobilize resources to create a local wholesale market for individual farmers. The activities of AKKOR managers in both districts show personal initiative but also the organizational and financial weakness of AKKOR, since local AKKOR representatives are left to define and act on their own agendas. Compared to the structures that support collective farming, AKKOR looks small and powerless.

Thus, the first post-Soviet government abandoned an institution that had been de facto assigned to implement reform by the last Soviet Russian government. For the farmers and the government it meant that the institutional connection between the reform designers and the reform participants was lost.

The State Land Committee

Another agency established during the pre-independence time was the State Land Committee, so named in direct allusion to its Stolypin predecessor. However, its responsibilities were defined much more narrowly and technically. The Land Committees were launched by a Resolution of the Council of Ministers of the Soviet Socialist Russian Federation. The Land Committee has national headquarters and branch offices in every province (oblast) and district (raion) of the country. The Land Committee is not designed to provide legal, educational, or advisory services to the newly created farmers. According to its narrow technical objectives, the Land Committee is staffed by salaried workers and has no elected officials or popular representatives on its board. Clause 18 of the Presidential Decree "On Urgent Measures for the Implementation of the Agrarian Reform in Russia" recommends that local government bodies create public councils for

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the supervision of land committees, but this clause has never been voluntarily implemented or forcefully promoted by the government.²

As things stand now, issues of land allocation and of land confiscation are reviewed by the Raion Land Commission and authorized by the Head of the Raion Administration. The Commission consists of the representatives of local administration, employees of the Land Committee, and technical specialists from sanitary, ecological, and soil inspectorates.

Initially, in 1991-1993, the main task of the Land Committee was to accumulate the unused state and municipal reserve lands as well as lands handed over by collective farms to the Land Redistribution Commissions and deposited into the land reserve fund. The Land Redistribution Commissions were to confiscate the unused land from the collective farms as well as land that was found to be excessive in comparison to the regional average per prospective shareholding member of a collective farm. The land deposited by collective farms with the Land Redistribution Committee amounted to about 10 per cent of the landholdings of a collective farm.³ The interviewed heads of the Land Committees in the two districts of the study stressed that chairmen of Land Redistribution

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³ Interviews with Petr Konstantinovich Ovs'annikov, Deputy Chairman of the Engels District Land Committee, Summer 1997, and with Vladimir Vasil'evich Carenkov, Chairman of the Vsevolozhskii Raion Land Committee, Summer 1996.
Commissions in their districts were directors of collective farms and were not restraining the collective farms from depositing their worst land with the Land Committee.

After passively accepting the land that collective farms chose to give up, the Committee was charged with quick distribution of this land among prospective farmers. With no oversight from the public and with pressure from above to report a growing number of newly created individual farms, speed became the main measure of success. The interviewed heads of the District Land Committees and other participants in the reform unanimously testified that at the initial stage (1992-1993) anyone of rural or urban origin who claimed a desire to become a farmer would get land. If the claimant did not get land and it was known that the land was still available, the claimant could report the Land Committee as being anti-reform, which in turn could create trouble with the superiors and the media. Therefore, the goal of the Land Committee became to distribute the land in its possession as fast as possible so as not to appear anti-reform. This led to the creation of a group of "asphalt" farmers, urban dwellers who applied and received land to become individual farmers. Some of them had a sincere desire to return to their rural roots while others were attracted by the idea of farming or discouraged by the lack of opportunities in the city. Some were ready to give farming a fair try, provided there was guidance and that the promised credit for reallocation, infrastructure, and equipment materialized; others were attracted by the opportunity of acquiring an asset for free, and

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15 Predominance of "urban farmers" in this group is explained by the fact that rural dwellers could get land as land share in a collective farm and did not deal much with the Land Committee.
planned to sell their land once land sales were legalized. As time passed, the promised support did not materialize, land sales are still restricted in the majority of the provinces, and the environment for individual farming has definitely not improved. For all these reasons much of the hastily distributed land has remained unused.

With a lag time of two years, the news of non-performing "asphalt" farmers has finally reached the upper echelons of government. The process of getting a free plot of land was adorned with conditionalities: a prospective farmer needed at least three months of farming education and a business plan. Since there was no quality control for either requirement this was still a small price to pay for what could become a lucrative piece of property sometime in the future. The result was that the Land Fund was depleted fairly quickly.

Since no other reform-promoting functions were added to the Land Committees' responsibilities, Land Committees started to look for these functions themselves. Interpretation of their new roles varied by district and stemmed from the professional background of senior employees and the dynamics of other developments in the countryside, which started to look like anything but reform. The two district Land Committee chairmen who were interviewed for this study were both collective farm agronomists before obtaining their posts. Their natural sympathies lay with collective farms and their management, not with their newly assigned clients. They also felt that the lack of success of individual farming made their choice wise and just, and they did not burden themselves with reflections on the causes of failure of individual farming.
The lack of sympathy and support that individual farmers are likely to receive from the structure created to assist them is best illustrated by a letter that the chairman of the ER Land Committee submitted to the raion administration. This letter contains a proposal to empower the Land Committee to confiscate lands from the new landowners if the land has not been in agricultural use for two years or more.16

As things stand now, the observed officials of local Lands Committees, the organizations that were created to support individual farmers, see their role as commanding their unpredictable flock to produce, regardless of market conditions. These officials want to see their role enhanced. Traditionally, they see this greater importance coming from a greater role in non-market distribution of resources, not from supporting the fragile reality of private property in general and of individual farming in particular.

And this is it. There are no other government bodies on the ground created for the implementation of agricultural reform. The presidential decrees described in the beginning of this work and in the related literature as important pro-reform achievements of the post-Soviet reform deal primarily with farm restructuring, the new legal forms farmer's cooperation may acquire and the procedures of exiting from a collective farm. The energies of the government and its advisers were focused on legislating increasingly complete and secure rights of land ownership. The focal point of these efforts was the failed attempt to pass a new Land Code through the Duma. While the security and
completeness of property rights is an important and a valid concern, it dangerously usurped the attention of government policymakers’ efforts to create mechanisms to implement reforms to the full extent of the existing legislation.

Without supervision, the institutions created for reform implementation chose to undermine the property rights that already existed. Others, like AKKOR, shriveled into insignificance. This does not mean that Russian agriculture suffered from an institutional void. As is usual with voids, it was quickly filled. Institutional creation, however, may not have been of the kind the reformers wanted. The new structures were survival path-dependent structures developed without or, rather, in defiance of, the federal government’s reform agenda. In the next part the nature of these institutions and the reasons for their viability will be discussed.

New Roles for Old Institutions

It has been pointed out in a number of works that collective farms have restructured in name only. Far less attention has been paid to the fact that sub-national state agencies charged with overseeing the agricultural sector have changed even less. Many of the oblast and raion departments of agriculture have preserved the same name, the same offices, and the same staff that was supervising the fulfillment of plans in the Soviet times.17 Ninety per cent of the current employees of the Ministry of Agriculture of the

16 A letter written by Petr Ovs'annikov to the head of administration of the Engels Raion Svistunov, June 6, 1996.
17 Observations based on interviews with the Heads of the Department of Agriculture of Vsevolozhskii Raion of Lengrad Oblast, with the Head of the Department of Agriculture of Engels Raion of Saratov Oblast as well as other district and oblast-level agricultural officials; empirical data on governance of the agricultural sector has been collected in Saratov, Novgorod, Ekaterinbourg and Volgograd Oblasts.
Sverdlov Oblast, for example, worked in Soviet agricultural administrative and party supervision agencies.18

The former employees of the party and administrative bodies are now unevenly distributed between the two branches of government. The executive agency is usually called either the Department or the Ministry or the Committee of Agriculture and has branches at the raion levels.

The structure of these descendants of Soviet executive Departments of Agriculture resembles the predecessors in the number of departments, staffing and names of departments. The typical additions are sections called something like "development of peasant and household small-scale production" and a section on "marketing and price policy". The employees interviewed of the "development of private sector" sections complain about diminishing funds and have no statistical data on production and profit of their constituency.19 There is no enforced requirement for statistical reporting for individual farmers, the official five-year tax holiday saves farmers from official scrutiny, and other forms of small-scale private production are not taxed. These local supervisors know the more successful farmers by name (a handful in each raion) and have personal ties with some of them. These well connected farmers, also typically members of the old

18 Interview with the advisor of the Saratov Duma Committee On Agricultural Policy, Mr. Romanov, January 21, 1999. Mr. Romanov himself had been a chairman of the Department of Agriculture of the Oblast Communist Party Committee for more than ten years, and had worked on the committee for a total of 30 years.
network, end up being the recipients of the ad hoc funds that the department sporadically receives either from the federal or oblast governments.

On the legislative side, oblast Dumas usually have agricultural factions that control agricultural committees. The role of agricultural committees is to prepare the oblast-level legislation related to agricultural matters. In all Dumas analyzed, agrarian factions are dominated by managers of large collective enterprises. The agrarian faction and some other interested parties form agrarian committees to prepare agriculture-related legislation that is later debated in the oblast Duma. The committee usually has an advisory body attached to it. In the studied oblasts the advisors were usually former employees of Agricultural Departments of the Communist Party Oblast Committees or employees of local academic establishments that have made a career studying and perfecting collective farming. As oblasts’ legislatures are typically weaker politically and financially than the executive offices, these agencies are much smaller than the executive agricultural bureaucracy. In the strong authoritarian Saratov Oblast, for example, there is no agrarian committee on the legislative side at all, since the Duma is a rubber-stamping office to the governor, who made his version of agricultural reform a centerpiece of his platform.

Executive departments of agriculture look and sound unreformed. In SO, the employees who were interviewed talked about the advantages of large-scale agriculture and lamented the love of the federal government for experiments, such as individual farming. Individual farming, in their view, creates a group of people who drop out of the
existing system of distribution and who demand funds and disrupt supervision by not reporting what they grow or by leaving fields untended. Yet, their motives for continuing to support collective producers and the mode of delivering this support have shown signs of creative adaptation to the new environment, a subject that will be discussed in Chapter 4C.

Chapter 4B: Agricultural Politics and Collectivist Policies

The Oblast Level

State agricultural institutions in both oblasts are very similar to their Soviet prototypes, but the level of administrative involvement and the extent to which each oblast financed agriculture varied dramatically. The starting point for the analysis of these differences between the oblasts is the role that agriculture plays in the economy of each oblast and the percentage of the oblast's population that is rural.

Table 6: Share of Agriculture in the GDP and the Share of Rural Population in the Saratov and the Leningrad Oblasts

<table>
<thead>
<tr>
<th>Share of GDP (in %)</th>
<th>1990</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO</td>
<td>33</td>
<td>14</td>
</tr>
<tr>
<td>LO + St. Petersburg</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Share of agriculture in the national GDP</td>
<td>16.4</td>
<td>7.8</td>
</tr>
<tr>
<td>Share of rural population (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>LO + St. Petersburg</td>
<td>8.5</td>
<td>8.9</td>
</tr>
<tr>
<td>Share of rural population for Russia</td>
<td>26.2</td>
<td>27</td>
</tr>
</tbody>
</table>


The SO is part of the black soil region, “the grain basket of Russia,” with an agricultural GDP almost twice the national average. The city of Saratov is the administrative center of the oblast and one of the major industrial centers of the Volga region, with a population of 884 000.21

The LO oblast produces dairy products and vegetables. Agricultural production in LO constitutes a much smaller share of GDP than in SO. St. Petersburg is included in the GDP estimates for LO, as St. Petersburg is the administrative center of the LO, At the same time, at the national level St. Petersburg has special administrative status as a major cultural and industrial center, with the population of 4,163,000.22 Agricultural GDP in LO

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22 Regioni Rossii.
plus St. Petersburg is about 20 per cent of that of SO, and is less than half the national average.

Similarly, the share of the rural population is much larger in SO and has grown to one-third of the population of the oblast. In LO and St. Petersburg, the share of the rural population is increasing as well, but still constitutes less than 10 per cent of the oblast’s population.

As an agricultural producer, SO has a high national profile, while LO is a regional player. In terms of value of agricultural production in 1997, SO was rated 8th out of 89 oblasts, and the LO 21st.23

The SO is an important national grain producer. On average, SO exports two-thirds of the grain it produces.24 The true amount of dairy and meat production is not known precisely. Experts estimate that no more than one-third of the individually held cattle is reported to the taxation and statistical agencies. The SO ministry of trade places the number of spontaneous mini-retail markets that sell meat and dairy products at 150 in the city of Saratov alone.25 Overall, the oblast is believed to be able to satisfy its needs for all foodstuffs (see Table 7).

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23 Regioni Rossii, 403.
LO satisfies its need for almost all essential foodstuffs as well. It is one of the important regional producers of potatoes and is capable of fully satisfying the needs of St. Petersburg, the primary market for its agricultural exports. As Table 7 indicates, in LO imports constitute a significant share of St. Petersburg’s consumption of other agricultural products as well. In 1996 and 1997 meat production in LO decreased substantially because of sharp increases in the prices of feed and fodder, which is in part imported from other provinces.\footnote{It is important to note that significant correction in agricultural prices in favor of agriculture happened after the 1998 financial crisis and a subsequent rouble devaluation, a period outside of the scope of this study.} Considering some underreporting of individual agricultural production (though not to the scale of SO, a subject of discussion below) it is likely that LO exports constitute a larger share of St. Petersburg consumption than indicated by official data.

Exports of foodstuffs to the city of St. Petersburg increased after the 1998 financial crisis, which brought about devaluation of the rouble and which in turn led to an increase in the competitiveness of domestic agricultural producers. (This period is outside of the scope of this study.) There are reports that grain exports from SO have also increased proportionally to the size of the harvest.
Table 7: Share of the *Oblast* Production of Agricultural Commodities to the *Oblast* Consumption (%)

<table>
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<tbody>
<tr>
<td></td>
<td>LO</td>
<td>SO</td>
<td>LO</td>
<td>SO</td>
</tr>
<tr>
<td>Meat</td>
<td>166</td>
<td>15</td>
<td>123</td>
<td>111</td>
</tr>
<tr>
<td>Milk</td>
<td>153</td>
<td>15</td>
<td>123</td>
<td>137</td>
</tr>
<tr>
<td>Vegetables</td>
<td>145</td>
<td>93</td>
<td>136</td>
<td>124</td>
</tr>
<tr>
<td>Potatoes</td>
<td>256</td>
<td>108</td>
<td>98</td>
<td>214</td>
</tr>
<tr>
<td>Grain</td>
<td>330</td>
<td></td>
<td></td>
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</tbody>
</table>


*SP*=St. Petersburg

The organizational structure of agricultural production in the two *oblasts* shares common post-Soviet traits, yet one can discern important dynamic differences. In both *oblasts* collective enterprises remain the main agricultural producers. After the official restructuring of collective enterprises, their number in both *oblasts* has not changed significantly (Table 8). As of late 1998, forced bankruptcies of collective enterprises were not completed in either of the *oblasts*, yet in LO nine of the collective enterprises were under state management in preparation for bankruptcy. No such cases were reported in the SO, despite the fact that in both *oblasts* the majority of collective enterprises have been unprofitable for a number of years.
As is shown in Table 8, the change in the number of individual farms after the initial dramatic increase between 1991 and 1994 differs by oblast. In SO, despite proclaimed support of individual farming, the number of individual farms has been decreasing, a reflection of a national trend. In the meantime, the number of individual farms in LO continues to grow, if at a much slower pace than at the beginning of the reforms. As is demonstrated below, this difference in trend is connected with more equal rules for market interactions in LO and a more distorted pro-collectivist environment in SO.
Table 8: The Number of Agricultural Producers by Type

<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective Enterprises (JSCs and other legal arrangements)</td>
<td>739</td>
<td>750</td>
<td>756</td>
<td>759</td>
<td></td>
</tr>
<tr>
<td>Individual Farms</td>
<td>1568</td>
<td>9624</td>
<td>9374</td>
<td>9148</td>
<td>8982</td>
</tr>
<tr>
<td>Private Plots</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>appr. 250000</td>
</tr>
<tr>
<td><strong>LO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective Enterprises (JSCs and other legal arrangements)</td>
<td>213</td>
<td>210</td>
<td>217</td>
<td>216</td>
<td></td>
</tr>
<tr>
<td>Individual Farms</td>
<td>178</td>
<td>5527</td>
<td>6069</td>
<td>6350</td>
<td>6854</td>
</tr>
<tr>
<td>Private plots</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>199404</td>
</tr>
</tbody>
</table>


The size of collective enterprises’ land holdings has not changed either (Table 9). Collective enterprises still command vast expanses of land, an average of 2,500 hectares in LO and of almost 8,000 hectares in the grain growing SO.27 After the unused lands were deposited with the Land Fund in the early 1990s, no important changes in the land holdings of collective enterprises have been recorded. As is shown below, in an effort to raise cash revenue the LO enterprises near St. Petersburg are starting to sell some of their land for residential construction. However, since conversion of land from agricultural to non-agricultural use is legally very difficult, few such sales have been recorded.

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27 Data provided by the Department of Reform and of Agricultural Policy, Committee of Agriculture of the Leningrad Oblast, St. Petersburg, Winter 1999, and Data and Facts on Agroindustrial Complex (Saratov: Saratov Government, 1998), 5.
In SO the average size of an individual farm has increased, from 40 hectares in 1991 to 50 hectares of arable land in 1998. Observers interpret the combination of an increase in size of individual farms with a decrease in the number of such farms as caused by better entrenchment of some of the first individual farmers, who have preserved or established contacts with local administration. Such farmers may have better access to credit and can therefore afford to expand.

In LO, while the number of individual farms has increased the average size of plots has decreased, from 18 to 9 hectares. This decrease in farm size may reflect difficulties with financing of individual farms on one hand, or of the nature of dairy and vegetable production, which may allow profitability with less land, on the other.

The official oblast averages for the sizes of private plots are difficult to come by. In SO the official size of private household plots, vegetable gardens, and orchards was estimated to constitute about 0.25 of a hectare and was reported not to have grown in the past 3 years. In LO the reported size of private plots is smaller, around 0.18 hectare and was also seen as stagnant.28

---

Table 9: Holdings of Agricultural Land by Type of Producer  
(Thousand of hectares)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective Enterprises (JSC &amp; other legal structures)</td>
<td>8014</td>
<td>7038</td>
<td>6979</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Farms</td>
<td>64</td>
<td>735</td>
<td>754</td>
<td>801</td>
<td>786</td>
</tr>
<tr>
<td>Private Plots</td>
<td>94</td>
<td>87</td>
<td>86</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8172</td>
<td>7860</td>
<td>7819</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective Enterprises (JSC &amp; other legal structures)</td>
<td>612</td>
<td>545</td>
<td>534</td>
<td>530</td>
<td>523</td>
</tr>
<tr>
<td>Individual Farms</td>
<td>3.3</td>
<td>38</td>
<td>39</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Private Plots</td>
<td></td>
<td></td>
<td></td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>742</td>
<td>706</td>
<td>706</td>
<td>704</td>
<td>703</td>
</tr>
</tbody>
</table>


In terms of volume of production, collective enterprises continue to dominate the scene. After the initial increase in the role of private plots, their production has stabilized. In LO the breakup in agricultural production by producer is similar for vegetables, meat, and dairy products, with 65 to 75 per cent of production coming from collective farms and approximately one-third coming from private plots. The exception is the production of potatoes, the main Russian subsistence crop, where the ratio of collective to individual production is reversed. The reported total production of individual farms has been slowly increasing and now stands at 2 per cent of the total output. The share of production of
both private plots and individual farms is believed to be larger than reported, as state monitoring of the volumes of production of these players has not been established.

In SO the main difference in the structure of agricultural production by producer is determined by the role of collective enterprises in grain production. Private plots are too small to be a player and the share of grain produced by individual farms between 1993 and 1996 has fluctuated between 9 and 7 per cent. Individual farmers grow about 10 per cent of the sugar beets and sunflower seeds produced in the oblast, with the rest being produced by the collectives.

Vegetable production in SO is dominated by private plots, which produce about 80 per cent of the vegetables and 95 per cent of the potatoes grown by individual farmers. It is important to note that dairy and meat production has been moving away from the collective domain and into private household production, with the private household share of meat production increasing from 28 per cent in 1991 to 62 per cent in 1996. During the same period the private share of milk production rose from 30 to 60 per cent.

The role of individual production has increased in both oblasts. In SO this led to increased specialization, with collectives producing more grain and individuals increasing their dairy and meat production. Chapter 6 will show how this specialization contributes to the preservation of old patterns.
The next chapter will discuss the political forces involved in agricultural politics, as well as the relative roles of the executive and the legislative in the management and control of the sector.

The Politics of Agriculture

The National Level

Scholars who examined Russian agricultural reform, particularly its initial stages, referred to “the Agrarian Lobby” in the Duma as one of the main obstacles to true reforms in the countryside. Don Van Atta starts his review of the Russian agrarian reform with a statement that “The Russian agricultural lobby may be even more influential than corresponding groups in Western Europe and the United States because it has frequently been able to act as an organized bloc.”

In the 1993 Duma elections the Agrarian Party received 8 per cent of the vote and elected 35 members from party lists to the 450-member Duma. Yet in both the 1995 and 2000 elections the Agrarian Party did not succeed in clearing the 5 per cent threshold needed to secure seats from the party lists in the National Duma. What made the Agrarian Party, described by Van Atta as “at times the largest, and always one of the most anti-reform groups” lose its support? Does it mean that the large collective farm interests the Agrarian Party was seen to represent had lost their influence on national politics and Russian agricultural policies?

---

It will be argued below that between 1994 and 2000 collectivist interests in both spheres have remained very influential. The channels of promoting these interests have shifted from the national legislative level to the sub-national executive and sometimes sub-national legislative levels.

The agrarian deputies’ high profile in the early 90s was guaranteed, first by their role in passing pro-reform laws in the old R.S.F.S.R parliament and second by concerted efforts to block further pro-reform legislation in the early independent Russia National Duma. Van Atta explains this shift position primarily by saying that while the reform that transferred land from the government to the collective farms strengthened the position of the rural elite, further reforms that gave individual farmers advanced legal rights might undermine the control of the rural elite and, therefore, had to be blocked.31

With the defeat of the government version of the Land Code, dramatic pro-and anti-reform battles in the Duma subsided. President Yeltsin moved the reform forward by enacting Presidential Decrees without the Duma’s support. After mid-1995 the government realized it had reached the limit of what is achievable by decree without a radical change in the democratic premise of the new regime and stopped trying to push new legislation through the uncooperative Duma. Financially, the national-level budgetary and extra-budgetary support to collective farms and newly created individual

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30 Ibid., 159.
31 Ibid., 159-162.
farms decreased substantially. The federal government and the President had enough executive power to limit financial flows to collective enterprises and the role of the Duma in extracting support to its constituency was limited further by budget conditionalities imposed by foreign donors.

Pro-reform forces failed to secure Duma representation as well. As described above, AKKOR, the group that could have become the organized voice of individual farming, was bureaucratized by being turned into a distribution machine for government credits to individual farmers. As these credits dried out so did the trust of the rural population, which had believed that AKKOR was actually not a self-serving shell of an institution. So the interests of individual farmers did not receive a unified national representation significant enough to meet the challenge of the Agrarian Party in the Duma. AKKOR ended up entering the Agrarian Party as a founding member in February 1993, totally confusing its once loyal supporters.32

It started to look as if the federal level pressure on the Duma was not the way to secure survival of traditional patterns of rural interaction. The Duma ceased to be the forum where the legal future or the financial present of agricultural policies was decided. The Agrarian Party usually comes to life at a time of annual budget debates to secure a constant level of state support to agriculture. It appeared that in the brief presidency of Primakov and the more authoritarian presidency of Putin state subsidies are revived,

32 Interviews with 12 individual farmers in the Leningrad Oblast, June 1997.
together with more state control over agricultural production, but these developments are too recent to be analyzed here.

**The Oblast Level**

**The Leningrad Oblast**

As has been discussed, agriculture is not the dominant sector in primarily industrial LO. Except for the specialized agricultural departments, the *oblast* administration has little professional experience in the sector. The governor of the *oblast*, Mr. Gustov, is a geologist by training and has been elected to the post twice, once in 1991-1993 and then again in 1996. Politically, Mr. Gustov presents himself as a realist who distanced himself from the Communist party in 1990 and is currently a leader of the “Northwestern Concord” movement. The goal of the movement is to promote economic development in the northwestern Russia, of which LO is an important part. Mr. Gustov has been active in attracting foreign investors into the *oblast*, successfully advancing the image of the LO as an investor-friendly alternative to the corruption-ridden St. Petersburg, which is located in the center of the *oblast* but is a separate administrative entity.

Agriculture has never been central to the LO *oblast*’s economy or to its strategy of economic reform. Therefore agricultural policies do not have the dynamics or the pitch of agricultural policies in SO. Structures that govern agriculture, such as the Ministry of Agriculture (renamed The Committee for Agriculture in 1997), as well as legislation pertaining to agriculture, largely mirror national structures. Financing of agricultural producers by the government is carried out through a number of small-scale targeted
programs, e.g., improvement of soil fertility, support for feed grain production, education of agricultural specialists, and the use of new technologies. The scale of this involvement in relation to the national budget and the relative access of individual and collective producers to these resources will be discussed below.

The LO legislature, which has the title of a Legislative Assembly rather than that of a Duma, is not controlled by agricultural interests either. After the 1997 election, only five deputies out of 50 elected members of the Assembly were professionally involved in agriculture. The LO legislature has a permanent Agricultural Commission. The Chairman of the Agricultural Commission, an energetic manager of one of the collective farms in this study, complained that he could not get government information on financing for agriculture and agricultural producers until he put forth a proposal to block the oblast’s budget until the information was provided to the Commission. There is little agreement or coordination between the legislative and the executive branches on agricultural issues, but such miscommunication is much less public or high profile than in SO.

Agricultural party politics does not have a distinctly dominant player and represents a chorus of voices of varying strength and intensity. Some groups pursue narrow interests of their immediate members while others are just starting their operations and may yet grow into a significant force if the national political climate progresses in the direction of

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33 Mr. Sizich, Chairman, Committee on Agriculture of the Leningrad Oblast, “Agriculture in the Leningrad Oblast — Positive Tendencies,” (document prepared for a meeting at the Ministry of Food and Agriculture of the Russian Federation, Moscow, June 24-25, 1999), 4-6.
34 Interview with Alexandr Trafimov, General Director of the JSC Ruch’i, Spring 1999.
more democracy (an unlikely scenario at this stage). These smaller political agricultural groups and associations include the St. Petersburg branch of the National Union of Land Owners of Russia, a union that claims to represent 15,000 individual farmers and private plot owners, as well as the Leningrad Union of Women Farmers, representing 270 women. The Leningrad Union of Women Farmers is distinct from the Leningrad Oblast division of the National Movement of Rural Women, a movement that unites 150 women farmers. Another large-scale association, "Fatherland," includes among its members the Chairman of the Agricultural Commission of the oblast legislature. This association claims 750 members in 20 municipal units in LO. Its stated goal is the strengthening of the agricultural lobby in combination with market-based competitive agriculture.

A survey of 300 members of various political movements and associations on the relative influence of these movements in the LO legislature was carried out by the Agribusiness Center in the fall of 1999. The perceived influence of “Fatherland” is by far the strongest with 80 per cent, followed by the Agrarian Party as a distant second with 5 per cent, the Union of Farmers of the Leningrad Oblast commanding 5 per cent, and the Leningrad Association of Women-Farmers with 5 per cent as well.

The executive branch, on the other hand, is more influenced by “Leadership,” an association that unites former oblast-level agricultural administrators. Thirty per cent of the representatives of agricultural movements and associations perceived “Leadership”

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Information on parties and associations representing agricultural interests was collected by the agricultural consulting firm, Agribusiness Center, St. Petersburg, Fall 1999.
influence to be the greatest. The Communist party commandeered 20 per cent, the Agrarian Party of Russia 15 per cent, and the Union of Farmers of the LO was considered most influential by 10 per cent of respondents. The lobbying group "Generals", which unites managers of large-scale collective enterprises and which campaigns for targeted individual state financing for particular enterprises, was rated as most influential by 5 per cent of respondents.

The absence of an apparent, strong leader allows for small-scale, interest-specific movements to evolve. Furthermore, because of the lack of apparent domination of either the executive or of the legislative branches in oblast politics, different interests agglomerate around each of these axes, a configuration that provides for a greater plurality of voices. This plurality of interests takes the LO agriculture further away from the uncontested one-party politics of socialism, yet the marginal influence these parties and associations exercise over agricultural politics and state resources makes one wonder how viable and authentic this seeming diversity really is.

The Saratov Oblast

A confrontation between the legislative and the executive bodies marked governance in the SO during the period from 1991-1996. During this period, the authority of a weak governor (whose official title at that time was “Head of Administration”) was counterbalanced by the power of the Soviet of People's Deputies,
renamed the Oblast Duma after the 1994 election. In the first Duma elections, the Agrarian Party won the highest number of seats of all the parties in the race – 10 out of 35, followed by the Communist party. The Agrarian Party was represented by 14 deputies.

In SO the Agrarian Party distanced itself from the Communist Party, stressing commitment to a pragmatic approach to agricultural restructuring, support to both collective and individual farming, and support for the development of market transactions in agriculture. Both the Chairman and the Vice-Chairman of the first Duma were members of the Agrarian Party. Professionally the Agrarian Party representatives in the Duma were managers of large collective enterprises or heads of district administrations.

The high profile confrontation between the Head of Administration and the Duma was not centered on specific policy disagreements, but was rife with personal attacks and accusations of weakness of the Head of Administration. The confrontation was brought to an end after Mr. Ayackov was elected Governor of Saratov. The most vociferous opponents to the previous administration from the Duma were brought into the new administrative team. For example, the Deputy Chairman of the Duma, Mr. Dvorkin, became the First Deputy Governor and the Head of the Department of Agriculture.

The new Governor moved quickly to strengthen the power of the executive. Sectoral executive departments were renamed into ministries and expanded. District-level administrators were, in an explicit post-Soviet way, made personally responsible for monitoring the financial needs and level of output achieved by large-scale agricultural producers in their jurisdiction, despite the officially private status of these farms.

Agricultural policies of the new governor, who did away with the uninspiring title of Head of Administration, were directed toward strengthening the role of the sector as a center of economic activity in the oblast. Agriculture was announced as a priority: "Land is the axis of the economy, and all the other spheres are added to it, including industry and the social sphere."37.

The prescriptions for faster agricultural development were Soviet in origin and spelled more centralized oblast-level financing and more investment in the rural infrastructure. The data on the newly intensified investment in agriculture and the mechanism of supplying it will be described below. Here it is important to point out that this dirigiste stand was popular with the electorate and brought Mr. Ayackov 90 per cent of the rural vote.

With the election of the new governor the balance of power between the Duma and the executive shifted in the direction of the former. During the 1997 Duma elections, 32 out of 35 deputies associated themselves with the "team of the governor." In the Duma
after the 1997 elections, 12 deputies out of 35 represented predominantly rural areas. The Agrarian faction consists of 10 deputies. The second Duma is chaired by the same Agrarian Party leader as the first. All the initiatives of the Governor, including the controversial "Law on Land," which allows for the sales and mortgage of land, was voted in by the Duma without any opposition, a feat national Russian leadership could not achieve. The adoption of the oblast's annual budgets has become much less controversial with the Duma accepting draft budgets presented by the Governor without significant alterations. Suggestions for budget revisions made by the Duma members center around securing subsidies or tax breaks for influential individual producers in their jurisdiction.

In the past eight years the Agrarian Party of Saratov has evolved from active opposition to the executive to an active supporter of the strong governor. Together with the governor, it favors state intervention into agriculture. Closeness of interests between the oblast executives and the Agrarian Party along with the inclusion of party leaders into the oblast administration has undermined the development of the Agrarian Party as an independent ideological force. Currently party politics do not go beyond individual lobbying and personal influence contests, measured by the ability to secure higher level of preferential financing for immediate clients.

37 Governor Dmitrii Fedorovich Ayakcov, speech to the Council of Federation of Russia, Moscow, October 1998.
40 Kalamin, Agricultural Policies in Saratov Oblast.
The oblast branches of parties that represented interests of individual farmers were politically and organizationally passive. Interviews with farmers in the SO as well as assessments of experts revealed that AKKOR did not have high-profile, oblast-level political or financing initiatives. The Peasant’s Party, briefly created as a rural branch of the liberal “Choice of Russia” party, never developed beyond its oblast-level headquarters and was dissolved in 1996 as the SO chapter of the “Choice of Russia” ceased activity.

During a brief period in 1992-1994 it looked like party politics could become an important part of the sub-national political discourse. However, the re-introduction of a strong oblast-level executive that re-instated vertical financial and administrative subordination of large-scale agricultural producers undermined these brief overtures with political pluralism. Political and economic polices in agriculture were re-centralized by the strong oblast level executive.

The different roles that agriculture plays in the economies of the two oblasts of the study, the LO and the SO, are reflected in the position the agricultural elite holds in the oblast governments. As is evident from Table 10, in SO, all the leading political and administrative figures, including, ironically, the mayor of the city of Saratov, are former collective farm managers or other Soviet agricultural administrators:

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Table 10: Positions in Soviet Agricultural Management of the Chief Administrators in the Saratov Oblast

<table>
<thead>
<tr>
<th>Public/Administrative Post</th>
<th>Position in Agricultural Management Prior to Public/Administrative Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governors</td>
<td></td>
</tr>
<tr>
<td>1991 - 1996 Belich</td>
<td>Manager of a Poultry Farm</td>
</tr>
<tr>
<td>1996- Ajackov</td>
<td>Manager of a collective farm, manager in the Oblast Poultry Administration</td>
</tr>
<tr>
<td>First Deputy Governor</td>
<td></td>
</tr>
<tr>
<td>1996-1998 Dvorkin</td>
<td>Agronomist, Leader of the Agrarian Party</td>
</tr>
<tr>
<td>1998 - Gorbunov</td>
<td>Collective farm manager, district level administrator</td>
</tr>
<tr>
<td>Chairman of the Oblast Duma</td>
<td></td>
</tr>
<tr>
<td>1994-current Charitonov</td>
<td>Collective farm manager</td>
</tr>
<tr>
<td>Mayor of Saratov</td>
<td>Official in the Oblast Poultry Administration</td>
</tr>
</tbody>
</table>


An effort to create such a table for LO failed: in LO, none of the key administrative or legislative figures except for those specifically charged with controlling agriculture have agricultural pasts.

The economic and political prominence of agriculture in SO makes agricultural politics visible and intense. The beginning of the reform in SO coincided with the rule of a politically weak governor, who neither abandoned the policy of blanket subsidization of collective enterprises nor openly embraced market reforms. Since the new regulatory role...
of the state in agriculture was not defined and, therefore, was not implemented, the muddle-through scenario prevailed. The agricultural elite blamed the diminishing state support for agriculture on the Governor himself. The result of this dissatisfaction was an open confrontation between the Governor and members of the agrarian faction of the Soviet of the People's Deputies renamed the Oblast Duma after the election of 1994. The dissatisfied collective farm managers congregated around the leaders of the Agrarian Party. Even though the Agrarian party claimed to be tolerant of all forms of agricultural production including individual farming, their demands were heavily weighted toward support for large agricultural producers and were not directed toward the development of the market orientation in agriculture.

The District Level

Anyone who is informed about the power of collective action naturally wants to look at the parties with which the economic actors in the studied sector are affiliated. From the outset it must be said that in the field research this strategy failed. Rather, it succeeded in discovering a total lack of interest and trust in party representation among the managers of collective enterprises interviewed.

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42 Information about Saratov agricultural politics comes from V. V. Volodin, Ten Years of Perestroika: Views of Saratov Scholars (Saratov, 1996).
Table 11: Do political parties represent your interests?

<table>
<thead>
<tr>
<th>Question</th>
<th>SO-ER (No. of respondents - code of the response)</th>
<th>LO-VR (No. of respondents - code of the response)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which party represents your interests in the national Duma</td>
<td>8-5; 1-3;</td>
<td>8-5</td>
</tr>
<tr>
<td>Which party represents your interests in the provincial Duma?</td>
<td>9-5</td>
<td>7-5; 1-1</td>
</tr>
<tr>
<td>Which party represents your interests in the district?</td>
<td>9-5</td>
<td>8-5</td>
</tr>
<tr>
<td>Which party best represents your interests?</td>
<td>7-5; 1-4; 1-3</td>
<td>5-5; 2-1; 1-2</td>
</tr>
</tbody>
</table>

Codes: 1. Communist  
2. Agrarian  
3. Peasant’s Union  
4. Other  
5. None

Source: Interviews with the collective farm managers in the ER and VR, Fall, 1997.

As Table 11 demonstrates, the vast majority of collective farm managers interviewed in the two districts do not believe that any party represents their interests. Comments that accompanied the answers were equally telling: “We do not take them seriously” and “They are nothing more than talking machines.” In the SO-ER, the only manager who felt that the Peasant’s Union represented his interests had worked as an individual farmer and was invited by the district administration to take over management of an unprofitable JSC. One manager admitted to personal leanings towards the monarchist party, but was not an active member. None expressed any personal or corporate interest in the Communist party.
In the LO-VR the managers unanimously agreed that none of the parties represented them. It is interesting to note that the only manager who believed that the Communist party represented his personal and professional interests went on to become Deputy Governor of the Leningrad Oblast for Agriculture, which may mean a deeper than average party involvement that resulted in significant personal advancement. Similarly, the manager of one of the most energetically reforming collective enterprises who stated that his personal affiliation with the Agrarian Party went on to become the leader of the Agrarian Faction in the Oblast Duma. He was also the only one who thought the agricultural producers’ lobbying efforts were insufficient and should be increased. In this small sample the only managers who felt affiliated to parties were those who used party connections for political advancement, not the rank and file members who felt the beneficial effects of party representation. The statement of a third LO-VR manager about his party affiliation, “I never left the Communist party,” could be interpreted as a defiance of the fashion to abandon a sinking ship as much as his genuine conviction or current interest.

Another telling fact is that when answering questions about party representation, four managers in the SO and two in the LO named local administrators as people who represented their interests, without being sure of their party affiliation. This confusion between the legislative and executive branches, along with uncertainty about the party affiliation of those representing the interests of the collective enterprise, confirms the view expressed by a number of political scientists that power in present-day Russia is
highly personified and concentrated with the executive while the legislative is largely marginalized.43

Chapter 4C: Financing of Agriculture

Subsidies

The National Level

The outcome of a low level of federal involvement in the implementation of agriculture reform is the unannounced adaptation of reform-related institutions to the needs of sub-national governments. Once the weakness of vertical control became apparent, oblast governments began redesigning agricultural policies in line with oblast-specific financial constraints and political priorities.

In practical terms, this has meant that sub-national governments have reacted more to the sharp decrease in absolute and relative subsidies for the agricultural sector than to the announced shift in policies from collectivist to individual farming:

Table 12: Transfers to the Agro – Industrial Complex as % of GDP

<table>
<thead>
<tr>
<th>Type of transfer</th>
<th>1992</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Farms</td>
<td>0.74</td>
<td>0.02</td>
</tr>
<tr>
<td>Input cost subsidies</td>
<td>0.83</td>
<td>0.13</td>
</tr>
<tr>
<td>Procurement credit/subsidies</td>
<td>4.47</td>
<td>0.87</td>
</tr>
<tr>
<td>Producer credit/subsidies</td>
<td>4.051</td>
<td>0.94</td>
</tr>
<tr>
<td>Total</td>
<td>10.09</td>
<td>1.96</td>
</tr>
</tbody>
</table>


Table 12 demonstrates that direct federal financing of agriculture went from 10 per cent of GDP to 2 per cent in a mere two years. Table 13 shows the changing shares of federal and sub-national support to "the national economy," a category that prominently includes agriculture. The decrease in federal funding was partly compensated for by the increase in sub-national (oblast and sub-oblast) financing of the "productive sectors."
Table 13: Budget Expenditures by the Level of Government

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>80.8</td>
<td>48.6</td>
<td>30.4</td>
<td>26.3</td>
<td>27.5</td>
</tr>
<tr>
<td>Oblast</td>
<td>8.7</td>
<td>24.6</td>
<td>34.8</td>
<td>35.4</td>
<td>32.4</td>
</tr>
<tr>
<td>Sub-oblast</td>
<td>10.5</td>
<td>26.8</td>
<td>34.9</td>
<td>38.2</td>
<td>40.1</td>
</tr>
<tr>
<td>Expenditure for National Economy* as % of GDP</td>
<td>26.42</td>
<td>13.45</td>
<td>10.60</td>
<td>8.34</td>
<td>8.56</td>
</tr>
</tbody>
</table>


Although Table 13 reflects a steep increase in the share of sub-national financing of agriculture from 19 per cent of the total in 1992 to 72.5 per cent in 1996, this does not mean that the previous level of support could be maintained. The sub-national financing of the national economy only went up from 5 to 6 per cent of GDP. Considering that in real terms the GDP sharply decreased between 1992 and 1996, the absolute contribution of sub-national governments to the national economy actually decreased. With federal financing falling from 23 to 2 per cent of GDP, the existing methods of financing the national economy, and the agriculture sector in particular, have had to be rethought.

Initially, many of the oblast governments tried to maintain the Soviet subsidization pattern. By mid-1992, 23 food-exporting oblasts introduced food subsidization schemes
for local consumers.\footnote{Vincent Koen and Steven Phillips, "Price Liberalization in Russia: the Early Record," International Monetary Fund Occasional Paper no. 104 (Washington, D.C.: IMF, 1993); Bruce Gardener and Karen Brooks, "Food Prices and Market Integration in Russia: 1992-1993," \textit{American Journal of Agricultural Economics} 76 (1994): 641-666.} By 1995, despite pockets of local resistance, prices for agricultural outputs started to reflect market conditions in the majority of the oblasts.\footnote{Daniel Berkowitz, David N. De Jong, and Steven Husted, "Quantifying Price Liberalization in Russia," \textit{Journal of Comparative Economics} 26 (1998): 735-760.} This early experience proved to local governments that a reincarnation of Soviet patterns was not within their fiscal reach and that new subsidization schemes were needed to achieve their multiple goals of political survival, fiscal sustainability, and the provision of a bundle of services to their constituencies.

\textbf{The Oblast Level}

With the election of a new Governor in 1996, large-scale agricultural producers got what they had missed under previous leadership. Governor Ayackov portrayed himself as a strong \textit{dirigiste} leader, bent on increasing both the oblast control and financing of agriculture. This position brought him 90 per cent of the rural vote in the oblast.
Table 14: Share of Agriculture in the Saratov Oblast’s Budgets
(Mln denominated Roubles)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenditure</td>
<td>1,716</td>
<td>3,407</td>
<td>3,410</td>
<td>2,303</td>
</tr>
<tr>
<td>Expenditure on Agriculture:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incl. --Agricultural Production</td>
<td>29</td>
<td>216</td>
<td>269</td>
<td>155</td>
</tr>
<tr>
<td>--Land Resources</td>
<td>0.75</td>
<td>2.3</td>
<td>4.8</td>
<td>6.8</td>
</tr>
<tr>
<td>--Procurement and Storage of</td>
<td>177</td>
<td>64</td>
<td>118</td>
<td>179</td>
</tr>
<tr>
<td>Agricultural Output</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--Other</td>
<td>67</td>
<td>36</td>
<td>317</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>275</td>
<td>318</td>
<td>709</td>
<td>385</td>
</tr>
<tr>
<td>Share of Agricultural Expenditure to the Oblast Budget (%)</td>
<td>16</td>
<td>9</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>Oblast Investment in Agriculture</td>
<td>96</td>
<td>260</td>
<td>301</td>
<td>331</td>
</tr>
<tr>
<td>Total Oblast Investment</td>
<td>2,682</td>
<td>4,005</td>
<td>5,105</td>
<td>5,488</td>
</tr>
<tr>
<td>Share of Agriculture in the Oblast Investment</td>
<td>3.5</td>
<td>6.5</td>
<td>5.9</td>
<td>6.0</td>
</tr>
</tbody>
</table>


From Table 14 it is evident that the new governor increased direct support of agricultural production more than sevenfold, from Rb 29 in 1995, the last year of the previous administration, to Rb 216 million in nominal terms in 1996, the year Ayackov became governor. Simultaneously, oblast investment in agricultural projects increased almost threefold, from Rb 96 million to Rb 260 million in 1995 and 1996 respectively. The share of subsidization of procurement has not increased as dramatically. However, as will be shown below, vast extra-budgetary financing of procurement has been achieved by other means. The budget share of agricultural expenditure has not increased in 1996 as total budgetary expenditures were finalized before the governor took office. However, in
1997 support to agriculture constituted 20 per cent of the total budget expenditure of the oblast, not counting significant extra-budgetary outlays to be discussed below.

Table 14 primarily reflects financing channeled through SO’s Ministry of Agriculture. The involvement of other ministries (such as the Ministry of Grain Products, the Ministry of Irrigation, and the Ministry of Rural Development) in the financing of agriculture has increased as well. A report from the Minister of Agriculture estimates that total budgetary and extra-budgetary support to agriculture was Rb 1 billion in 1996, Rb 1.4 billion in 1997, and Rb 1.8 billion in 1998, half of the oblast’s total budget expenditure!46

It is important to note that none of these allocations are specifically targeted to individual farmers.

For the economic and political reasons discussed above, agriculture has a low position on the totem pole of the oblast’s financial and political priorities. The oblast’s agricultural policies and legislation mirror federal ones. In the second half of the 1990s, the agricultural budget of LO did not increase as dramatically in nominal terms and actually decreased in real terms:

Table 15: Budget Expenditure in Agriculture in the Leningrad Oblast
(Mln denominated Roubles)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure on Agricultural Sector Incl.</td>
<td>67</td>
<td>75.8</td>
<td>141.8</td>
<td>96.4</td>
</tr>
<tr>
<td>Agricultural Production &amp; Financing of the Min. of Agriculture</td>
<td>43.4</td>
<td>28.3</td>
<td>27.5</td>
<td></td>
</tr>
<tr>
<td>Land Resources Incl. Land Committee</td>
<td>3.6</td>
<td>8.2</td>
<td>8.4</td>
<td></td>
</tr>
<tr>
<td>Min. of Agriculture Expenditure on Land Resources</td>
<td>16.0</td>
<td>17.9</td>
<td>28.8</td>
<td></td>
</tr>
<tr>
<td>Other Programs</td>
<td>8.4</td>
<td>75.9</td>
<td>27.2</td>
<td></td>
</tr>
<tr>
<td>Fund “Russian farmer”</td>
<td>0.02</td>
<td>2.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State investment</td>
<td>0.2</td>
<td>8.9</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>Total Expenditure of the Leningrad Oblast Budget</td>
<td>851</td>
<td>1396</td>
<td>2143</td>
<td></td>
</tr>
<tr>
<td>Share of Agricultural Expenditure in the Budget of the Oblast (%)</td>
<td>7.8</td>
<td>5.4</td>
<td>6.6</td>
<td></td>
</tr>
</tbody>
</table>


The share of the budget and the dynamics of the changes in the financing of agriculture in LO differ significantly from the equivalent phenomena in SO. The share of agriculture in the total budget is lower, even though financing of the city of St. Petersburg is not included. If it is included, the share of agricultural financing drops to less than one per cent of total expenditure. It is significant, or at least symbolic, that the LO budget retains a separate category for the financing of individual farming, even if the funds allocated specifically to these clients are minuscule.

Even though agriculture’s share of budget financing is large and increasing in SO, it is not sufficient to support unprofitable agricultural producers, given the post-reform liberalization of prices for agricultural inputs and outputs (see discussion of farm level...
financing below). To continue with interventionist agricultural policies, the oblast government has had to invent an institution that did not exist in Soviet times, an institution that allowed the distortion of input and output pricing according to the needs of the oblast government.

Credits

The National Level

Kolkhozy and sovkhozy in all of Russia, including the ones studied here, concentrated primarily on delivering a planned volume of output to the state. Decisions about the crop mix or about the financing of agricultural production was taken by the government. According to Renata Ianbykh:

Loans were allocated to producers according to credit plans approved by regional (oblast) and federal administrative bodies. The amount borrowed and its use was determined by production and investment plans set up for agricultural producers. These plans were subject to administrative approval and control. Interest rates for short-term loans amounted to 2 %, for long-term loans - 0.75 % (Semyonov 1982). Producers operating at the so-called «planned loss», i.e. making anticipated loss given the prices and commodity mix fixed in their production plans, received special 2-year grants for «replenishment» of working capital. The repayment of loans was very poor, leading to regular restructuring and writing-off.47

Neither were collective enterprises engaged in the sales of their outputs. All outputs were transferred to state-owned warehouses and elevators. The fate of the outputs after this point was not a concern of the collective farm managers. Distribution agencies took over.

In 1992 and 1993 the federal government made an effort to curtail its involvement in agricultural financing. Sharp price increases for agricultural inputs made it politically impossible for a then pro-reform Russian government to get out of the business of subsidizing agriculture. In 1991 the government launched a system of directed credits to agricultural producers. The credit was disbursed in proportion of the sowing area, without any attention to the viability of the collective producers or their ability to repay. Directed credits were granted by the Central Bank and channeled through the distribution network of a formerly state owned Agroprombank. Interest rates on directed credits were subsidized and ranged from 8 to 25 per cent, while commercial interest rates in 1993 approached 210 per cent per year and the inflation rate was up to 10 per cent per month. In 1994 directed credits were resumed, but the interest rate equaled the market rate. The advantage for agricultural producers, from the point of view of the government, lay in the terms of these credits--the credits were granted for a year at a time when only short-term crediting was available elsewhere. From the point of view of the producers, the advantage was that the credits came from the state and, therefore, did not need to be repaid. Virtually all of the credits granted in 1992-1994 were rescheduled a number of times. The
latest rescheduling puts the dates of repayment between 2005 and 2008; the collective enterprise managers do not expect to have to repay even at that time. In the calculations of Renata Ianbykh,

In 1998 the amount of the total debts on directed credits of 1992-94 including the penalties equaled 21 bn. new denominated roubles ($3.5 bn.) and two times exceed agrarian budget-98.49

The government could not support such blanket Soviet style support of all agriculture any longer. In 1995, the federal government was searching for a compromise that would help to curtail the drain on the federal budget from subsidization of agriculture yet would not lead to a confrontation with the agrarian lobby.

**Post–Soviet Redistribution: the Food Corporation and Commodity Credits**

The solution was called Commodity Credits (CCs). It had two merits: first, it allowed the government to stay within the IMF’s expenditure targets and, second, it did not give the Duma an excuse to encourage the Central Bank to resume monetary emissions.50 The Federal Food Corporation was created to make this scheme operational.51

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49 Ianbykh, *Credit Markets in Rural Russia*, 5.
50 Interview with Eugenia Serova, former advisor to the Russian Government on agricultural policies, March, 1999.
The scheme works as follows:

**CHART 3: COMMODITY CREDITS**
**DELIVERY SCHEME**

Since CCs were initially paid primarily in fuel, the Federal Food Corporation signed agreements with oil refineries (the input provider in Chart 3) to sell fuel to agricultural producers at the time of sowing. The federal government granted oil refineries tax breaks equal to the value of their oil deliveries to the agricultural producers at pre-specified...
prices. Agricultural producers were to repay the CC at harvest time either in cash or in kind at the prices decreed by the oblast government.

The Federal Food Corporation was designed to disburse CCs and to supply foodstuffs to budgetary organizations (such as the army and prisons). It was also to act as a guarantor of price stability, since Food Corporation procurement prices were to serve as floor prices. In reality, in the context of a thin, unformed wholesale market, the Corporation prices instead became ceiling monopsonistic prices. The formation of wholesale markets stalled.

While the Corporation’s new price-regulating role did not materialize, a traditional role for such an institution was instantly resurrected: that of a channel for "soft" credits to agriculture. CCs were perceived as soft and were not repaid. Realizing that the perceived soft nature of the CCs was undermining the effort to promote market discipline, distorting agricultural prices, and bringing new actors in to the distribution system, the federal government decided to discontinue the CCs. As Table 16 demonstrates, Federal Commodity Credits were discontinued in 1997. The non-repaid debt was once again postponed or converted into oblast securities, with oblasts responsible for the repayment.

The soft nature of CCs and the low repayment rate persuaded the federal government that CCs were even less transparent and less pro-market than centralized credits. Thus, in 1997 the federal government made an effort to get out of the business of commodity crediting by abolishing the Federal Food Corporation. A Federal Agency for the Regulation of the Food Market was created instead. Its main functions were to monitor fluctuations in the prices of agricultural commodities, to intervene if price fluctuations became disruptive, to monitor market competitiveness, and to select suppliers for the Federal Food Fund through a competitive tender.

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Table 16: Federal Commodity Credits
(in bn. Rb.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity Credit</td>
<td>7.2</td>
<td>11.1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>of which repayment</td>
<td>($ 1.5bn)</td>
<td>(1.85 bn)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>postponed until 2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Oblast-level Securities | 5.1        | 9.8 plan   | 3.6 actual |}


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In 1997 the federal government experimented with distributing agricultural credits through commercial banks. The Special Credit Fund arrangement is described in Eugenia Serova, *Agrifood Policy in Russia in 1998* (Moscow: Institute for Economy in Transition, Center for Agrifood Economy, 1998).

The goal of the arrangement was to attract banks to agricultural lending and to share the risk of lending with the private sector. Once again, the credit ended up achieving goals rather different from those anticipated. The banks, even those willing to lend to collective farms (on average farm producers received 12 to 30 per cent of disbursed loans nationally, the rest was distributed to agricultural processors or to local administration), had no experience in evaluating the creditworthiness of the JSCs and were understandably not sure of the latter's intention to repay. They started to demand oblast government guarantees. What was conceived as commercially based crediting was transformed into another channel for the oblast governments to exercise control over agricultural producers, but this time with the use of the federal funds. Local governments had the power to decide which of the enterprises on their territory were to receive federal funds and which were not. 50 per cent of the credit ended up channeled through the local governments. In the LO-ER, for example, only 2 out of 10 enterprises have received subsidized commercial credit. The former manager of one of the enterprises was the Vice
Governor of LO, the other was the Chairman of the Agricultural Committee in the Oblast Duma.

The 1997 credits were not repaid again. The Kiryenko government was the first to refuse debt rescheduling, but it did not last long enough for the measure to take. In 1998, by a decree issued by the Primakov government, agricultural debts were rescheduled again. The new government was sympathetic to large-scale producers so the CCs at the federal level were resumed. The federal government realized that agricultural policies were travelling along the familiar roots and it decided not to be marginalized again. It remains to be seen if the initiative in agricultural distribution will return to the national level.

**The Oblast Level**

In the meantime, the power of local government in agricultural redistribution has been strengthened. The admission in 1997 at the federal level that the CC project had failed did not mean that the sub-national governments saw it as a failure as well.

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55 Ianbykh, “Credit Markets in Rural Russia,” 7.
56 On restructuring of debts to federal budget and non-budgetary social funds see Government of the Russian Federation, Resolution, O por'adke provedenija v 1998 году restructurizacii zadolzhennosti sel'skokhoz'aitstvennych tovaroprovoditelei, predpriyatiy i organizacij agropromishlennogo kompleksa gosudarstvennym vn'eb'udzhetnym fondam Rossiiskoi Federacii [On the Order of Restructuring the Debt Owed by Agricultural Producers and Organizations of the Agroindustrial Complex to the State Extrabudgetary Funds in 1998], no. 1146 (October 2, 1998); and Government of the Russian Federation, Resolution, O predostavlenii v 1998 году sel'skokhoz'aitstvennym tovaroprovoditel'am, predpriyatiyam i organizacijam agropromishlennogo kompleksa ostrochki pogashenija zadolzhennosti v federal'nyi b'udzhet [On Prolonging Debt Repayment on Debts Owed by the Agricultural Producers, Enterprises and Organizations of the Agroindustrial Complex to the Federal Budget in 1998], no. 1147 (October 2, 1998) website of Ministerstvo Sel'skogo Khoz'iaistva i Prodoval'stvijaRossiiskoi Federacii [Ministry of Food and...
As purchases into the Federal Food Fund for narrowly defined budgetary needs were decreasing, the share of purchases into the regional Food Funds, managed by the newly independent Oblast Food Corporations, were not.

Commercial subsidized credit was a scheme that required cash allocations, and cash was something the oblast budgets were short of. For those sub-national officials who were looking to preserve their role in the distribution of inputs and outputs, the cash-free input provision scheme was an inspired idea that allowed them to continue to intervene in agricultural policies without allocating additional cash resources from the under-funded provincial budgets, and they were not prepared to abandon it.
Both of the oblasts have Regional Food Corporations. Their financing mechanisms initially replicated the federal CC scheme. Since political and economic imperatives differ in the two oblasts, the scale of the sub-national state procurement operations and the level of distortion they bring to the oblast food production and commodity markets differ.

In both oblasts, the exact size of the CCs and their repayment are carefully guarded secrets. The scale of CCs can be detected from the decrees that authorize them. The list of inputs covered by the CCs, which in the federal scheme consisted primarily of fuel, grew to include fodder in LO and virtually all of the inputs that a large-scale agricultural producer may need in SO (parts, fertilizer, seed and fodder).

In LO and St. Petersburg there are two affiliates of the much diminished Federal Food Corporation – the LO and the St. Petersburg branches, which operate independently of one another each other. They are accountable to the LO government and the St. Petersburg city government respectively. Since 1996 the oblast-level CCs have been guaranteed by the oblast budget, not the federal one. Therefore, both Food Corporations

put a higher priority on their relations with the oblast governments than on their relations with the Federal Corporation. Table 17 compares the size of LO’s budget subsidies to agriculture with the CC for 1996 and 1997:

Table 17: Comparison of the Size of Commodity Credits to the Oblast Budget

Leningrad Oblast, 1996, 1997

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget Financing of Agriculture (MLN RB)</th>
<th>CCS Authorized by the Oblast Government (MLN RB)</th>
<th>Share of CC to the Budget Financing (IN %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>75.8</td>
<td>Fodder 39,300</td>
<td>104.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fuel 46,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 85,300</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>141.8</td>
<td>Fuel 45,300</td>
<td>67.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fodder 50,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 95,300</td>
<td></td>
</tr>
</tbody>
</table>


Table 17 demonstrates that CCs play an important role in the oblast’s financing of agriculture and are comparable in size to the financing given to the collective enterprises through the oblast budget. CCs are similar to subsidies in their low interest rates (from zero to 10 per cent per annum) and low repayment rates. According to the chairman of LO Food Corporation, more than 50 per cent of the 1996 credit has not been repaid, and

the repayment rate for 1997 is no better. Furthermore, non-payment of a credit does not disqualify an enterprise from applying for a similar credit a year later.\(^5\)

Despite its role in the financing of agriculture, however, it is difficult to brand the Leningrad Food Corporation a monopolist commodity trader in the Leningrad market. The reported shares of vegetables and dairy products that pass through the Corporation do not exceed 10 per cent of the \textit{oblast} production of that particular commodity.\(^6\) The Corporation prices largely follow the market and are often seen as advantageous by producers, since, in the case of vegetables, there is little quality control and it is possible to sell lower quality output for an average price.\(^6\) Part of the explanation for the Corporation's relatively limited market power lies in the nature of the agricultural commodities that are prevalent in L.O. Vegetables and dairy products are produced predominantly by small-scale private producers who retail their output themselves. The post-Soviet large-scale wholesale enterprises are not designed to capture these potential clients.

The weakness of the Corporation is also apparent in its inability to enforce debt repayment. There are no signs of collusion between the Corporation and the \textit{oblast} or district-level administration to preclude the export of agricultural commodities from the \textit{oblast} until the debt to the Corporation is repaid. Nor is there any effort to enforce an in-kind rather than a cash debt payment. It is significant that LO Federal Food Corporation

\(^{59}\) Interview with Yuri Priochod'ko, Chairman of the Leningrad \textit{Oblast} Agency for the Regulation of the Food Market, St. Petersburg, Summer 1999.
was renamed the Agency for the Regulation of the Food Market after the Federal Corporation changed its title. This indicates that the Oblast Corporation-turned-Agency still sees itself as subordinate to the federal headquarters and does not follow an expansionist oblast agenda. The Leningrad Agency for the Regulation of the Food Market is fairly constrained in its ability to distort input and output markets.

In stark contrast, constraint does not describe the role of the Food Corporation in the openly dirigiste Saratov. All the interviewed experts from grain wholesaling companies and specialists from the Saratov Ministry of Grain Products agree that the Saratov Food Corporation (which, unlike its Leningrad counterpart, preserved its old name despite a market-friendly renaming at the federal level) is the most powerful, wealthy, and least-transparent agency in the oblast. It is not an affiliate of the Federal Food Corporation (there is one in Saratov, but its volumes of procurement are very small). It was created in 1997 at the order of the Governor as a closed joint stock company with a controlling block of shares belonging to SO government. Other shareholders include the only commercial bank that grants credits to agricultural producers, the largest grain trader “Russkoe Pole,” the largest alcohol distillery “Liksar” and a food commodity trading company belonging to the President of the oblast’s Chamber of Commerce. Minor shareholders are grain elevators and grain processors. This level of vertical integration guarantees the Food Corporation almost full control over grain production in the oblast.

60 Interview with Yuri Priochod’ko, Summer 1999.
61 Interview with the farmer Vorobiev, Vsevolozhskii Raion, Leningrad Oblast, Fall 1997.

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The legal powers of the Oblast Food Corporation are vast. The conflicting tasks of the Corporation, to name a few, include meeting the ill-defined “needs of the oblast in foodstuffs,” intervening in the market if food price fluctuations appear destabilizing or if other market players behave in a non-competitive manner, facilitating agricultural producers’ access to markets, giving credit to agricultural producers against their food deliveries to the Oblast Food Fund, and conducting export-import transactions. To achieve these multiple conflicting goals, the Corporation is allowed to use “material’nie resursi oblast,” the ill-defined "material resources of the oblast," legally making its access to both state and private financing unlimited. The Corporation is allowed to sell and buy agricultural inputs and outputs both inside and outside the oblast. The Corporation can use its revenue to increase its own capital and/or to purchase shares in other entities without making any obligatory remittances to the budget or having to make publicly available reports on the use of funds. The operating expenses of the Corporation are covered by the budget of the oblast.

Organizationally, the enforcement of debt repayment to the Corporation is strengthened by a parallel private-public arrangement; heads of district administrations are held personally responsible for the CC repayment by the ostensibly privately owned collective enterprises. According to the Governor’s decree, heads of district

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62 Governor of Saratov Oblast, Resolution, Ob utverzhdenii polozenija, strukturi, i shtatnoi chislennosti oblastnoi prodovol'stvenni korporacii ministerstva torgovli Saratovskoi oblasti [On the Founding Documents, Structure, and Staffing of the Oblast Food Corporation Subordinated to the Ministry of Trade of Saratov Oblast], no. 811, legislative brochure of the Administration of Saratov Oblast (November 3, 1997).
administrations face dismissal if the collective enterprises in their jurisdiction have not repaid their CCs on time.\textsuperscript{63}

Fortified by administrative support, the Corporation is then used as a debt collection agency. When economic and political imperatives drive the oblast government to harden the budget constraint of debtor-enterprises, the Corporation is charged with collecting debts from the JSC not only for itself but also for the oblast, for the federal budgets, for extra-budgetary funds, for gas, electric energy and fuel companies, and for the equipment leasing agency.\textsuperscript{64} Since debts are repaid not because of self-enforcing market mechanisms or predictable contractual obligations, but collected by “brute force,” the government has the flexibility of deciding how "soft" it wants the CCs to be that particular year. If the government needs to fill its coffers because of financial constraints or the presidential ambitions of the Governor, no market sales of grain are allowed outside of the oblast without a clearance from the Food Corporation. Anyone transporting grain without the full set of documents that confirm that all of the enterprise’s debts to a list of agencies have been fully repaid is charged with theft. The result of the policy is a grain glut in the oblast, which causes the internal prices for grain to become much lower than the external prices. However, if the government sees it as economically or politically advantageous to subsidize all or any of the agricultural producers, debt repayment is not enforced.

\textsuperscript{63} Governor of Saratov Oblast, Resolution, O dopolnitel’nich merach po zaversheniju polevich robot i formirovaniju regional'nogo fonda prodovol'stvennogo i furazhnogo zerna [On Additional Measures for the Completion of Fieldwork and Formation the Regional Fund of Fodder Grain], no. 77-p, Saratov Government Bulletin, Saratov, October 13, 1998.

\textsuperscript{64} Governor of Saratov Oblast, Resolution, O por’adke pogashenija sel’skimi tavaroprotivoditel’ami oblasti zadolzhennosti oblastnomu i federal’nomu budzetam po platezham vo vn’eb’udzetnie fondi, za material’nie resursi i o cenach na postav’ajemoe na eti celi zerno [On Debt Repayment to the Oblast and Federal Budgets by Rural

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According to the estimates of the experts from the Saratov wholesaling firms, in 1997, which was a bumper crop year, the Food Corporation handled 4.8 million tons of the 6.2 million tons of grain produced in the oblast. Official estimates are much smaller, to the order of 10 per cent of the harvest. The flow of grain and grain products to the Food Corporation as well as revenue from the sales of grain inside or outside of the oblast are not publicly known. The way these funds are used is not revealed even at the meetings of the oblast administration. The Corporation is controlled directly by the Governor. Neither the first Chairman of the Oblast Government, who is personally responsible for the Corporation, nor the Minister of Agriculture, the direct supervisor of the Corporation, publicly comment on its activities. A government document “Concepts and the Program for the Development of the Agro-Industrial Complex in 1997-2000” places the desired market share for transactions carried through the Corporation at 90 per cent of total grain sales.

Reportedly, the strategy chosen by the Corporation for distorting prices is the artificial lowering of prices for higher quality grain. Misclassification is easily achieved, since the grain is tested by internal experts of the Corporation. For example, in 1997, soft
wheat of the third class was priced at Rb 650 per ton, while soft wheat of the fifth class was priced at Rb 350 per tons and there was no fourth class in the middle!67

Comparing the powers and scope of operation of the Saratov and the Leningrad Food Corporations, one can discern two patterns. The pattern followed by LO Food Corporation is passively post-Soviet. Its goal is to provide survival support to collective producers without direct financial outlays. The scale of input provision by the Leningrad Food Corporation, as well as of vertical integration with the local government structures and the wholesaling institutions is not increasing and, at current levels, are not sufficient to regain control either of the commodity markets or of the JSCs.

The pattern followed by the Saratov Food Corporation, on the other hand, is "a step forward" in this respect. Its financing mechanism not only allows for the cash-free financing of agricultural producers but it is also a tool for reintroducing political and economic control over resources. It allows the oblast government to distort prices in favor of or against agricultural producers depending on the government’s political imperatives and financial needs. If the Governor is more interested in the rural vote, the debts of agricultural producers can be rolled over. If the oblast administration needs resources to finance a public or a political project, as, for example, a Presidential bid of the Governor, the producers may be hard pressed to repay all or part of their accumulated debt.

Individual farmers have official access to CCs as well. However, managers of the oblast and raion Food Corporations interviewed for the study stress that they prefer to deal with big collective producers, even though the quality of the agricultural output of individual farmers is more consistent. According to the Food Corporation administrators, large post-Soviet input providers are not equipped to work with small individual farmers. The equipment they use (trucks and vans) is geared towards large-scale deliveries and is underutilized if they have to make small deliveries to and from individual farmers. As the number of individual farmers is not increasing, the input providers have no incentive to invest in changing their equipment.

Farmers, in turn, view their obligation to repay the CCs as more stringent than the obligation imposed on the collective producers. Farmers are reluctant to use their harvest and property as collateral, a condition enforced by the FC in the case of individual farmers. As a result, in 1996, out of 19 individual farmers interviewed in two raions, only one was using CCs.

Conclusions to Chapter 4

The analysis of national and oblast-specific agricultural policies allows for the testing of the hypotheses about the divergence of national and sub-national patterns of reform implementation.

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The national-level legal initiatives were analyzed and actual reform implementing measures to test whether the federal government was controlling and monitoring reform implementation. With this goal in mind, I examined federal legislative efforts to promote the reform agenda and traced the functioning of institutions that were created for this purpose. The current experience of reform implementation was compared to the historic example of the Stolypin reforms.

The analysis of the reform-implementing institutions has demonstrated that the federal government’s effort at reform implementation was not consistent with the stated goals of the reform. The institutions that were created for the purpose of carrying the reform through were not empowered by the national government to actually contribute to the realignment of incentives on the ground. The inability to channel the reforms to the sub-national levels stemmed partly from assumptions promoted by national and foreign advisers that the invisible hand of the market was to carry the distribution of land to more productive and efficient owners almost unassisted by the sub-national institution building. The role of the government, the argument went, was to announce (not create) the "right" rules of the game, that is the rules that allowed the producers to depend on market-based resource allocation and the accrual of the residual flow of benefits to the owner. Once this plan failed to materialize, and the rules alone engendered very little actual change, the federal government did not develop a pro-active plan for the implementation of reforms.

69 Interview with Vladimir Ivanov, Director of the Food Corporation of Engelskii Raion, Saratov Oblast, July, 1997.
The institutions that were formally assigned the task of carrying the reforms through, such as AKKOR and the Land Committee either lost their power and importance once federal financial support to individual farmers dried out, as was the case with AKKOR, or reinterpreted their role in the direction of support to the pro-collectivist oblast government, as was the case with the Land Committee in the Saratov Oblast.

As a result, the initiative in carrying the reform through has shifted to sub-national governments which were free to interpret the need for agricultural transformation in line with their own political and economic imperatives, rather than with the centrally coordinated logic of market-oriented restructuring. The hypothesis about the ability of the local governments to promote their agricultural agenda in the oblast was tested through the analysis of the oblast level institutions created for reform implementation, of provincial budgetary allocations to agriculture, and the presence/absence of experience of provincial administrators in Soviet agricultural management.

The analysis revealed that in the province better endowed for agricultural production, where agriculture constitutes a larger share or the oblast GDP, and where local governments have significant experience in agricultural management, agricultural polices proved to be more interventionist and most reminiscent of the Soviet prototype. Political structure in the oblast was compatible with the economic developments. In the interventionist oblast, political power was concentrated in the hands of a strong Governor, the legislative branch of the government was weak and dependent on the top
executive, and political parties promoting diverse agricultural interests were almost nonexistent.

In the oblast with poorer agricultural endowment, a smaller share of agricultural GDP and a smaller share of oblast government involved in agricultural management, a more laissez-faire stance towards agriculture prevailed. In the laissez-faire oblast the government did not invest in the recreation of Soviet-type institutions in the new market environment. Nor was the government pro-active in consciously transforming itself into a regulatory rather than a participatory force. The pro-market structural changes occurred by default as a result of financial limitations on the oblast government rather than as a deliberate policy choices. Yet, this lack of direct and focused control of agriculture by a strong unipolar source of power allowed for the creation of minor parties and movements that were active in promoting their narrow political and economic interests in agriculture.

To assess the viability of channels of redistribution in the post-Soviet environment, the redistribution mechanisms created for this purpose were closely examined. The creation of the Food Corporation that was charged with supplying agricultural producers with a limited number of inputs discretely twice a year confirmed the hypothesis that in a sector with a low complexity of inputs such distribution can be recreated at the sub-national level without the national socialist coordination. It is interesting to note that the massive subsidization of poultry production that was initially attempted by LO government failed exactly because the continuous supply of subsidized fodder proved to

159

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be unsustainable.\textsuperscript{70} In SO, where crop production is the center of economic life and of the political ambition of the oblast's leaders, institutional structures could be redesigned to allow for state-controlled redistribution of the limited number of inputs.

It then follows that a counterintuitive argument can be made that agriculturally less endowed regions will be progressing away from the Soviet model of distribution in the direction of market oriented exchanges \textit{faster} than their agriculturally better endowed counterparts. This insight will be built upon in the assessment of policy implications.

There is another observation on the effects of the oblast-level agricultural policies that is important for the analysis of the oblast government-JSC interactions. The re-centralization effects observed in SO can be viewed as a modification of the socialist soft budget constraint as described by Kornai.\textsuperscript{71} The pattern of hardening or softening the budget constraint at the will of the state can be termed an \textit{elastic} budget constraint. It is elastic, as it can be made softer or harder by the dominant political and economic actor in the system.

The elastic budget constraint is different from the soft budget constraint in that the state is ideologically not obligated to finance enterprises since officially market channels of financing are now available. An elastic budget constraint is also different from a hard budget constraint since the state continues to be involved in the financing of producers on

\textsuperscript{70} Interview with Mr. Donskich, Deputy Minister for Agriculture, Leningrad Oblast, Summer 1996.

\textsuperscript{71} Janos Kornai, \textit{Economics of Shortage} (Amsterdam: North-Holland Publishing Co., 1980).
the basis of the balance of its political and financial needs rather than on its assessment of the viability of the enterprise and its ability to repay.

Post-Soviet elastic crediting is fuelled by political and economic interests of provincial governments that can demand credit repayment in a more or less stringent manner depending on whether political or economic imperatives dominate their agenda at any particular point in time.

What are the observable effects of these policies on collective enterprises? How have the JSC managers reacted to a de facto re-introduction of the dirigiste controls in one oblast and to a more laissez faire regime in the other? How do managerial strategies change under the influence of a market-based hardening of the budget constraint in the LO and a path-dependent post-Soviet access-based control in the SO?

To answer these questions data from two different sources are analyzed. Chapter 5 contains open-ended interviews with the collective farm managers from LO-VR and from SO-ER. The goal of these interviews was to obtain the views of the managers on the presence/absence of the reforms in their JSCs. Analysis of the responses of the managers from the two districts is used to assess if there is a consistent difference in the models of restructuring in the two districts and in the patterns of power relations among local administrators, collective farm managers, and collective farm employees. It is also important to establish if these differences amount to different paths of restructuring.
Another objective in presenting the interviews is to show the variance in the reform-related strategies within each district.

In Chapter 5 the enterprise level balance sheet data is used to analyze production and financing strategies of collective enterprise managers in the LO and in the SO.
Chapter 5. Reforms and the Collective Farms

In Chapter 2, a hypothesis about two models of restructuring available to firms in transition was formulated. One is a hierarchical political economic structure, an adaptation of socialist patterns to free market realities. In this model the economic, social, and political functions of the actors remain fused. The other is a more familiar market-oriented profit maximizing firm. Within the latter format the political, social, and economic functions are separated between the producing and administrative entities.

In the "capitalist" arrangement the expectation is that the government is playing a hands-off regulatory role and is not trying to influence markets or production decisions. Interactions with employees follow the same pattern. In the "capitalist" model the primary role of the employer is as a source of income for the employee. In the post-socialist model the enterprise serves as a provider of social services and inputs which are then used in private plot production for subsistence or sales.

In the chapter that follows the paths of restructuring outlined by these two models is traced through the managerial decisions of the directors of JSCs and by the ways these decisions reflect in the enterprise accounting data. The chapter starts with the analysis of case studies based on semi-structured interviews conducted with the JSC managers in the two districts of the study in the summer of 1997. The analysis of semi-structured interviews with each of the managers will be preceded by a brief discussion of the descriptive data on each enterprise. Data come from the balance sheets and income
statements of the studied enterprises and include data on land and asset holdings of each enterprise, changes in the workforce, changes in the financing patterns, and changes in the product mix. Here interviews with 11 managers are presented, 5 from LO-VR and 6 from SO-ER. The presented interviews cover half of the studied JSCs. The selected interviews represent cases of relatively more successful restructuring, mixed cases, and cases of lack of success as determined by the balance sheet profitability of the JSCs. The section concludes with a discussion of paradigmatic differences between the two models.

The farm-level sales and production farm-level data come from the balance sheets of the enterprises submitted to the district Department of Agriculture. Available data cover the period between 1994 and 1997. Before 1994 massive directed crediting (see Chapter 4C) and continuation of price controls over some of the foodstuffs make cost and profitability statements difficult to interpret. Whereas, by 1994 the official restructuring of collective enterprises into JSCs has been completed, directed credits discontinued, and most of the input and output prices liberalized.

From the perspective of collective enterprises, the timing for the beginning of independent production could not have been less opportune. After price liberalization prices of industrial inputs used in agriculture increased at a much quicker pace than agricultural wholesale and retail prices (the latter fell after a steep increase of 1992 associated with panic food hoarding, see Chart 5).
As shown in Table 18, profitability of agricultural enterprises in the two districts started to decrease steeply. Between 1994 and 1997, the years for which farm-level production and sales data is available, the profitability of the JSCs, measured as a ratio of profits to sales fell for all the 22 enterprises in the sample. In 1990 all the enterprises in the sample were profitable. However, since this was time of rigid price controls, official data does not reflect market profitability of the enterprises. In 1994, out of nine mixed-crop collective agricultural producers in LO-VR, only one was generating losses. This number grew to six in 1997. Whereby, the JSCs in SO-ER were already unprofitable by

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1994; eight out of twelve generated losses. In 1997, a year of a bumper crop, only one enterprise demonstrated positive profits, despite a steep increase in grain production. SO-ER enterprises, primarily grain producers, generated losses despite the fact that grain production has been judged to have been profitable in Russia throughout the years studied.2

It is important to note that the unimpressive performance of LO-ER enterprises is still 20 per cent better than the national average of 82 per cent (see Chapter 1, Table 1), while SO-ER enterprises performed 10 per cent worse than the national average:

Table 18: Change in Profitability of Collective Enterprises between 1994 and 1997

<table>
<thead>
<tr>
<th>Vsevolozhsk Raion Leningrad Oblast</th>
<th>Engels Raion Saratov Oblast</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Number of enterprises</td>
<td>9a)</td>
</tr>
<tr>
<td>Profitable/unprofitable enterprises</td>
<td>8/1*</td>
</tr>
<tr>
<td>Zero profits</td>
<td></td>
</tr>
</tbody>
</table>


Note: * means significant at 5 per cent level according to z-test for a proportion.

1 The number of the JSCs in LO-VR in 1994 was one less than in 1997, since one enterprise in LO-VR started to report to the Department of Agriculture in 1995 (until 1995 it was subordinated to the Administration of the Oblast and was not filing reports with the Department of Agriculture).

The depth of decrease in profitability in the two districts is different as well.

**Table 19: Profit Margins for Collective Enterprises, 1994-1997**

<table>
<thead>
<tr>
<th></th>
<th>1994 mean</th>
<th>1995 mean</th>
<th>1996 mean</th>
<th>1997 mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>min</td>
<td>max</td>
<td>min</td>
<td>max</td>
</tr>
<tr>
<td>LO-VR</td>
<td>-0.33</td>
<td>0.09</td>
<td>-0.56</td>
<td>0.06</td>
</tr>
<tr>
<td>N</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>SO-ER</td>
<td>-1.97</td>
<td>-0.39</td>
<td>-1.7</td>
<td>-0.52</td>
</tr>
<tr>
<td>N</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>


As Table 19 demonstrates, in LO-VR the average profitability for the district turned negative for the first time in 1996 and remained at the same level for 1997, two climactically comparable years in LO. In SO-ER, the average profitability of the enterprises was highly negative already in 1994 (-39 per cent) and deteriorated further in 1996, with sales covering only half of the cost of production. However, in 1997, many of the enterprises in SO-ER showed an improvement in their profit margins. This positive change came from two directions -- first, a bumper grain crop and, second, increased subsidization of agriculture by the provincial government.

Non-profitability of SO-ER enterprises despite consistent profitability of grain production in Russia through the studied years points either to price distortions at the sub-national level or structural problems that originate within the enterprises. The analysis of semi-structured interviews with the enterprise managers will let us observe patterns of
change in the managerial interactions with the following actors: the district or oblast administration, the suppliers and buyers, and the employees of the JSCs. It is also important to establish if there is a region-specific regularity in the observed patterns.

Chapter 5A: Restructuring of the JSC: Views from Within

Before proceeding with individual cases studies, aggregate data on physical assets held by the JSCs in the two districts is presented.

The use of balance sheet data for the examination of capital assets is very limited because of indexation of capital assets for inflation done according to a pre-approved federal formula. The result of such an indexation is a severe distortion in the accounting value of assets. As one manager put it, “the assets in our farm are evaluated at Rbl00 billion. They could not be more than Rb30 billion, but, as there is no property tax, no one cares.” Because of this constraint, only data on physical units found in the JSC performance reports will be presented.

In physical terms, between 1994 and 1997 the average number of capital units in both raions has deceased:

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4 Interviews with the accountants of the collective enterprises in the LO-ER and SO-ER, Summer, 1997.

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Table 20: Change in the Holding of Capital Assets, 1994-1997

<table>
<thead>
<tr>
<th>Year</th>
<th>1994</th>
<th>1997</th>
<th>1997 as % of 1994</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engels Raion Saratov Oblast</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of enterprises</td>
<td>min</td>
<td>mean</td>
<td>max</td>
</tr>
<tr>
<td>1994</td>
<td>12</td>
<td>2,437</td>
<td>14,107</td>
</tr>
<tr>
<td>1997</td>
<td>12</td>
<td>2,43</td>
<td>6,710</td>
</tr>
<tr>
<td>Land holdings (hectares)</td>
<td>min</td>
<td>1994</td>
<td>mean</td>
</tr>
<tr>
<td>1994</td>
<td>14,107</td>
<td>6,710</td>
<td>14,059</td>
</tr>
<tr>
<td>1997</td>
<td>14,059</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>Tractors</td>
<td>min</td>
<td>1994</td>
<td>mean</td>
</tr>
<tr>
<td>1994</td>
<td>20</td>
<td>53</td>
<td>82</td>
</tr>
<tr>
<td>1997</td>
<td>39</td>
<td>60</td>
<td>83</td>
</tr>
<tr>
<td>Cattle</td>
<td>min</td>
<td>1994</td>
<td>mean</td>
</tr>
<tr>
<td>1994</td>
<td>0</td>
<td>808</td>
<td>1,754</td>
</tr>
<tr>
<td>1997</td>
<td>0</td>
<td>355</td>
<td>809</td>
</tr>
<tr>
<td><strong>Vsevolozhsk Raion Leningrad Oblast</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of enterprises</td>
<td>min</td>
<td>1994</td>
<td>mean</td>
</tr>
<tr>
<td>1994</td>
<td>9</td>
<td>1,559</td>
<td>6,115</td>
</tr>
<tr>
<td>1997</td>
<td>10</td>
<td>1,040</td>
<td>5,825</td>
</tr>
<tr>
<td>Land holdings (hectares)</td>
<td>min</td>
<td>1994</td>
<td>mean</td>
</tr>
<tr>
<td>1994</td>
<td>1,559</td>
<td>6,115</td>
<td>90</td>
</tr>
<tr>
<td>1997</td>
<td>1,040</td>
<td>5,825</td>
<td>90</td>
</tr>
<tr>
<td>Tractors</td>
<td>min</td>
<td>1994</td>
<td>mean</td>
</tr>
<tr>
<td>1994</td>
<td>30</td>
<td>67</td>
<td>124</td>
</tr>
<tr>
<td>1997</td>
<td>16</td>
<td>49</td>
<td>90</td>
</tr>
<tr>
<td>Cattle</td>
<td>min</td>
<td>1994</td>
<td>mean</td>
</tr>
<tr>
<td>1994</td>
<td>0</td>
<td>1,531</td>
<td>2,746</td>
</tr>
<tr>
<td>1997</td>
<td>216</td>
<td>1,517</td>
<td>2,728</td>
</tr>
</tbody>
</table>


The size of land holdings between 1994 and 1997 appears basically unchanged despite a steep decrease in profitability in both raions. The stability of land holdings may come from two sources: legal restrictions on land transactions and/or lack of a hard budget constraint, which means that the enterprise is not compelled to divest in order to repay an accumulated debt. In one of the oblast some of the enterprises engaged in relatively minor land sales. However, since the land was transferred to the new owners for commercial non-agricultural use, the returns were substantial. Another reason for a slight decrease in the JSC land holding is formation of individual farms. The landholding data suggests that in LO-VR this process of divestiture is slow, but still faster then in SO-ER.
The depletion of *tractor fleets* represents amortization rather than strategic divestiture. The pattern of decrease in the mean as well as in the minimum and maximum of tractors held by different enterprises is similar in the two districts.

The pattern of change in *livestock* differs dramatically between the two *oblasts*. Between 1994 and 1997, the mean of the herd in SO-ER has decreased by more than a half, while in LO-VR the size of the herd remained fairly stable. Below the difference in asset retention as seen by the JSC managers is explored.

Comparison of aggregate or even of desegregated data alone does not help in understanding the reasons behind changes in asset holding or other production and financial data of the JSCs. Current knowledge about operations of post-Soviet JSCs is too incomplete to make assumptions about the meaning of data without supporting it with qualitative descriptions. Also, the current state of Russian accounting as well as the non-quantifiable aspects of restructuring, such as actual transformation of interactions among the main stakeholders within and outside the enterprise need to be assessed in a different manner. For a more nuanced assessment of the pace of reforms in the two districts, in-depth semi-structured interviews with the managers of the JSCs are used.
"Ruch'i" is one of the two larger JSCs in the district. The enterprise owned 4746 hectares of land in 1997, about 120 hectares less than in 1994. Approximately 1,500 hectares are meadows and pastures; approximately 2,000 hectares are ploughed land. The ratio of ploughed land to pastures and meadows remained stable. The size of land dedicated to each of these uses has not changed significantly either. In four years the number of employees has decreased by approximately 20 per cent, from 1,071 in 1994 to 865 in 1997. The enterprise had a fleet of 124 tractors in 1994, which decreased in 1995, then increased in 1996 and decreased again to 90 in 1997.

"Ruch'i" is a vegetable and a dairy producer. Total output of vegetables has been increasing dramatically. Potato output has more than doubled, from 724 tons in 1994 to about 1,700 tons in 1997. Vegetable output has increased as well, from 12,191 tons in 1994 to 17,081 tons in 1997. Hothouse vegetable production (tomatoes and cucumbers) was 647 tons in 1994, then increased to a high of 950 tons in 1995 to decrease to 550 tons in 1997. The size of milk herd has remained stable at 950 cows, while the overall cattle herd has slightly decreased, from 2,287 heads in 1994 to 2,003 heads in 1997. The decline in the hog herd was the steepest, from 5,555 heads in 1994 to just 593 in 1997, the decrease associated with a steep rise in the price of feed and competition from abroad. Milk output has decreased but not dramatically, from 598 tons in 1994 to 509 tons in 1997, the yield per cow has decreased from the high of 6.3 tons per cow in 1994 to the
low of 5.2 tons per cow in 1996 and then increased again to 5.4 tons per cow in 1997. Cattle daily weight gain has increased slightly, from 536 grams/day in 1994 to 547 grams/day per head in 1997.

As was mentioned before, the JSC has remained profitable throughout the studied period, with overall reported profitability decreasing each year, from 23 per cent of sales in 1994 to 11 per cent in 1997. While the major source of financing for the enterprise is its own revenue, other sources include subsidies, non-commercial financing, which in LO means CC and financing by suppliers and buyers. The third source of financing is commercial credits.

“Ruch’i” has been receiving subsidies on feed and fodder, as well as for high milk yields. To put subsidies in perspective, they compared to as little as 2.6 per cent of cost of goods (COGS) in 1995 and as much as 7.3 per cent of COGS in 1996. Non-commercial credits went down from 12.4 per cent of COGS in 1994 to as little as 2.8 per cent of COGS in 1996, reflecting a decrease in state crediting. Commercial credits compared to 4.5 per cent of COGS for all the years of the study, except for 1995 when the use of commercial crediting was down to 0.9 per cent of COGS.

“Ruch’i” is managed by Mr. Trafimov who took over as a manager in 1991, the year agricultural reforms were launched nationally. He has been elected manager by a shareholder’s meeting of the recently officially restructured JSC “Ruch’i”. His whole professional life has been in “Ruch’i”. He started his career at the collective farm in 1975.
as a leader of a brigade, then became an agronomist, then chief production specialist. His ambition was clearly stated both in the interview and in a book Mr. Trafimov published on the subject. His goal is to transform his enterprise into a viable profit-maximizing firm. The necessary steps in achieving this goal are:

- Transforming employees into true owners
- Financial and production autonomy of separate production units within the farm, making them individually profitable
- Decentralization of decision making down to the heads of production of separate units and individual heads of brigades.

To create incentives for individual employees/shareholders and make them interested in the profitability of the farm and cost cutting, the initial distribution of land and property shares was followed by two share emissions. The employees were invited to buy shares for cash. During the first share emission 500 people bought property shares, during the second the number increased to 747 out of the total of about 1000 employees and 700 pensioners. Share emissions achieved two goals: first, the employees committed their personal funds to the success of the enterprise, second, the majority of the shares passed from pensioners who were legally entitled to and received free shares at the time of restructuring to the working employees. “Now shares are in the hands of those who influence the production. I can tell them now: look how your capital is used. People in my

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5 Alexandr Trafimov, Reformirovanie mnogoukladnoi ekonomiki sel'skogo chrez’istva severo-zapadnogo raiona Rossii [Reforming Mixed Agricultural Production in the Southwest Region of Russia] (St Petersburg: Znanie Press,
farm feel like they are owners now. They talk about how to make the enterprise productive. They do not leave lights burning for the whole night in the barns and shops as they used to, they are counting money. Rb 500 million was invested in the enterprise by them.” Shareholding is not concentrated. No one is allowed to hold more than 5 per cent of shares without a special permission from the board of directors. 5 per cent of revenue is distributed as a dividend. There is continuous internal trading of shares, including land shares. An internal legal document had been elaborated detailing the procedures for internal share auctions. No other surveyed enterprise had active internal share trading.

Salaries and other payments have also changed in form and in spirit. According to the chief accountant, salaries are paid 90 per cent in cash and 10 per cent in-kind. Arrears on salary payments in 1997 have been 1.5 months, less than the oblast average. Salaries are calculated on the basis of individual production of each employee and of the cost-cutting the employee managed to achieve. “People know, that if they do not work, they will get the salary they deserve. It is not like you can come in, take the manager by the throat and announce that you worked. For example, the meat and dairy unit was in a bad shape, as fodder prices went up dramatically. I told them: “Look at the situation yourselves, how can we raise your salaries? You are Rb. 1.5 billion (non-denominated) in debt. Now they added 2.8 kilos of milk per cow per day, up to the record levels of 1990. We are trying to make it clear to every producer that if you do not work, nothing will be achieved.”
Changes in compensation for vegetable production are dramatic as well and payments are structured as an intra-farm sharecropping arrangement. “We have not contracted any people from the outside for three years now for weeding and harvesting (a widely used Soviet practice). We told our employees that we do not want to send money outside. We announced to our people that if they work in the fields at weeding and harvesting they will receive 10 per cent of the harvest, 6 per cent for weeding and 4 per cent for harvesting, which amounts to an average of Rb. 4.5 million (non-denominated). Other managers are surprised. They ask me “What is going on? It is 9 p.m. and your people are still in the fields.” The employees work with relatives after hours. When I first suggested that, only two people supported me. Only 78 people participated. Next year 160 people participated. This year we did not have enough vegetable fields for everyone who wanted to participate. As the result the fields are clean, our cabbages and carrots are clean, we do not need to use much chemicals. The same with tractor drivers. We sign an individual contract with each tractor driver. They finished harvesting in three weeks and earned up to Rb. 3 million (non-denominated) each.” In 1997 “Ruch’i” started to sign individual work contracts with every worker, a unique practice among the enterprises surveyed.

In terms of organisational changes, the JSC was reorganized into 8 production units (vegetable production, meat and milk unit, commercial services, technical support, etc.). Production units are financially autonomous and transact on the basis of market pricing and written contracts. Each unit has its own individual account in the accounting office. The accounting office, in Mr. Trafimov’s expression, operates like an internal
The units are given resources on the basis of annual business plans updated monthly. Production units have incentives to maximize profits and minimize costs, as remuneration of unit managers is directly tied to the profitability of their unit. If a unit has no final product, like an energy center, it is financed by the central office and signs contracts with operational units for the provision of services. Each unit has to defend its business plan and compete for scarce resources. “I do not meddle in the work of these individual structures.” The decision may be made to finance an unprofitable unit if its future profitability is judged feasible, as was the case with the vegetable unit in 1996 and with hog production in 1998. Financial exchanges between units are based on official checkbook payments. Profitable units may credit the unprofitable ones. For example, the vegetable unit is crediting the hog division. “Our farm is like a submarine, with a number of separate but interconnected sectors. If one sector gets filled with water, the others help it stay afloat.”

In terms of technological change, “technologies were changed, specialists were replaced. The dairy and meat sections work in two shifts now.” In vegetable production, “Ruch'i” purchased Dutch seeds and technologies. “We get 55 tons of cabbage per hectare, 23 tons of potatoes per hectare, 26 tons of beets per hectare. This is a good European level. We can plan our harvest now. In the past, remember, it was all nature’s fault, either too wet or too dry. We have stable harvests for three years now. Dutch potato seeds give a return of 32 tons per hectare. My agronomists wanted to plant our own potato. I said OK, go ahead. They planted 7 hectares and got 10 tons per hectare. That was a good lesson. Compare 10 and 32. I am trying to teach my people: if you are going
to calculate every day, if you are going to economize, there will be a result without fail. We need to produce good vegetables, we are competing with painstaking grannies with their private plots."

"Ruch'i" participates in the commodity crediting arrangement because of the low interest rates and lax repayment enforcement, but the amount of funds available through the CC covers less than 20 per cent of the fuel needs of "Ruch'i". The rest is bought from the wholesalers in barter or for cash.

In 1992 "Ruch'i" started its own processing. "Now we process all our milk ourselves." This required some creative financing. "We signed a contract with the Admiralty shipyard. And received a credit of $210,000. In return, we supplied them with food products for 1.5 years. Now we produce cream, yogurt, and sour cream. We can also process 2000 tons of vegetables. We make sour kraut. We have unique technologies that we bought cheaply from Uzbekistan to dry vegetables so that their properties are not lost. We are now working on better packaging. People around here prefer our dried dill and parsley to Finnish exports. Meat processing is too expensive. We cannot afford it now."

"Ruch'i" has a network of its own stores where it retails its output. "Ruch'i" has contracts with the wholesalers from the north of the country where the price of vegetables is much higher. It also sells about 50 per cent of its output in St. Petersburg. Mr. Trafimov thinks that local wholesale markets are very poorly developed. As a manager he wants to organize other managers as well as the district and local administrations to
organize wholesale markets in the district, commodity exchanges and fairs. He thinks that the government has been too passive and did not take sufficient initiative in supporting market-oriented infrastructure. (In later conversations, when Mr. Trafimov was elected to the oblast Duma and became Chairman of the Agricultural Committee, he named assistance in the creation of fairs and wholesale markets as one of his main goals).

Impressive as these achievements are, there are constraints to the restructuring Mr. Trafimov can carry out. Firing workers if they "behave" as a cost cutting measure, is still difficult. "We used to have 1,230 employees, now we have 700. I invited experts form the school of farming to assess our labor needs. Simultaneously, I asked my own human resources to carry out the same study. My people returned and said we need to hire more workers. The experts said we should employ 300-400 people. I think the experts were right, but it is very difficult to fire people. It is getting easier. We do not try to persuade them to mend their ways as it used to be. If you drink, good bye. There is still internal theft, though now that salaries depend on output people watch over each other so that no one steals too much. There is outside theft as well. I hire 130 guards to guard the fields"

Structurally, cost cutting is complicated as well. In 1997 the enterprise was still expected, officially and unofficially, to sustain the village adjacent to the collective farm. "It costs Rb 3.5 billion per year to maintain the services in the village. 2.5 thousand people live there, only 20 per cent work in the JSC. There are decrees that we can divest, but local authorities demand that we do expensive repairs before we actually do so. I had to build a boiler in the village that cost me Rb. 1 billion. People in the village keep..."
coming to me with their problems. We are carrying this burden at a difficult time, so it is not clear how we can survive.”

*Financially,* in order to restructure, the enterprise has been accumulating debt. The debt is not just to the state or quasi-state structures, as is the case in the majority of the enterprises and particularly in the SO-ER, but commercial debt as well. The enterprise gives priority in repaying commercial credits and is in arrears on repaying state credits as well as on tax payments and on contributions to the social fund. In the words of Mr. Trafimov, an estimate that is roughly confirmed by the examination of the balance sheet of the enterprise, “I am owed Rb 5 billion, and I owe Rb 10 billion. I owe Rb. 700 million to the budget, Rb. 250 million to the *raion* budget.” As a result, the JSC has a *kartoteka* filing, which means that profits deposited in the bank account will be automatically confiscated for debt repayment.

Currently, the enterprise is heavily involved in barter transactions. According to the chief accountant, in 1997 barter constituted about 60 per cent of transactions, a share that subsequently has decreased. “*Department of External Economic Affairs*” has full time staff that is organizing complex barter exchanges. While it is a costly occupation, deep market distortions can make it profitable. In the words of the Head of the Department of External Affairs, “I can take payments in anything, and then I barter it. For example, a store cannot repay us for our produce. I take payments in store space and sell our products. I try to barter at profit. Sometimes I am getting payment in goods, for example construction materials, sugar, that I can then give out as salaries. Since they (partners)
often cannot sell these products I get them at a discount. The second way is getting a
product that we can sell in our stores at higher prices. Just last week I got barter payment
in potatoes for Rb. 900 and sold it in our store for Rb. 1500. I made Rb 21 million on this
transaction. The third way is a multi-level barter. For example, we take milk to a
processor, the processor cannot pay us, but the gas company that is indebted to the milk
processor can.”

The colleagues look at Mr. Trafimov with suspicion. Other managers are not
convinced by “Trafimov’ fancy tricks” with ownership and share emissions. They point to
his high indebtedness as evidence of dangerous recklessness. They respect his
achievements in yields and quality of production, but point to the superior technical base
of “Ruch’i” at the beginning of the reforms as a reason for early successes. In the
meantime, in 1998 Mr. Trafimov has been elected to the oblast Duma and became the
Chairman of the Agricultural Committee. His senior staff in “Ruch’i” fears he will not
have enough time for his farm, though, on the upside, they hope for increased state
financing.

This is by far the most radical example of an effort to restructure. It is driven by a
charismatic manager who studied thoroughly international and domestic experiences in
this area before launching the restructuring of his enterprise. He believes that the future of
Russian agriculture is with large scale collective production. “What we are doing now is
we repeating the mistakes of the Stolypin reform. We are trying to create a new farmer
class in Russia. Historically we had strong peasants, but the dominant producers were big
landlords. The few that left our farm and started individual farms are now in a bad shape. There is no financing. We are also not used to individualistic lifestyles. We always lived in an obschina in a village. The key is big enterprises but with a sense of ownership. In our enterprise, I have more shares than others, but others realize that they are small owners as well.”

Mr. Trafimov feels that there is no guidance from the government on how to restructure. “There is no plan at the top. Maybe I do not have enough information here, but at the top there should be a program or models of how enterprises should work. We have some good people here, some enterprises work well, the state should concentrate on those. Often, I wonder what has changed in some of the enterprises except for the sign at the door. So, the managers are another problem. They do not understand restructuring at all. The authorities in our oblast at least do not interfere and let me work. I do not feel their existence.”

It is premature to say whether the new capitalist submarine that Mr. Trafimov is building will float or sink in the turbulent waters of transition. It may sink under the weight of costs and obligations, some of which it inherited from the past, some assumed by the enthusiastic manager. At this stage it is safe to say that many of the key internal and external interactions of the enterprise have changed dramatically. Internally, the relations with the employees started to be redefined, as the manager is trying to change the incentive structure from indifference to the financial outcome of production to financial interest in the long-term viability of the enterprise. The meaning of the term
“shareholder” started to be separated from that of a worker. This was achieved by inviting employers to invest into the enterprise and by organizing share emissions and auctions.

Externally, the relationship with suppliers has changed as well as there are many new suppliers the enterprise is dealing with. The foreign ones supply new technologies and a know how. The domestic ones are predominantly new as well.

In 1997 there were often barter transactions that the enterprise tried to turn to its advantage. The CCs are used by the enterprise, but admittedly cover a small share of its fuel needs. The proximity of the St. Petersburg market and a system of retail stores located in the city is the main source of cash for the enterprise.

Relations with the state in Mr. Trafimov’s view do not affect production. He states that neither local nor higher level government officials interfere with the production decisions and, that, subsidization is minimal. In making this assessment, Mr. Trafimov disregards lack of credible pressure to repay the accumulated tax, social fund and other debts and arrears to the state. Mr. Trafimov would like the administration not only to be more generous in terms of financial support, but also to assume leadership in better defining the goals and models for agricultural restructuring better.

Other successful enterprises follow more traditional patterns. They build on the existing capacity and make changes on the margins.
Prinevskoe

"Prinevskoe" is the second of the two largest agricultural producers in the district. Its total land holdings have remained fairly stable as well, slightly decreasing from 2,868 hectares in 1994 to 2,782 hectares in 1997. However, the size of ploughed land remained stable at 2,022 hectares. The size of meadows and pastures is smaller than that of "Ruch'i" and stands at 288 hectares. The number of employees has decreased by approximately 200 people as in "Ruch'i", but considering the larger workforce the rate of decrease has been lower, from 1,133 employees in 1994 to 931 in 1997. In terms of assets, the tractor fleet has decreased, from 83 in 1994 to 69 in 1997.

Data on agricultural production present a picture of stability in turbulent times. As "Ruch'i", "Prinevskoe" is a mixed vegetable and dairy farm. Potato output has increased, but not as dramatically as in "Ruch'i", from 2,285 tons of potato in 1994 to 2,525 tons in 1997. Vegetable production has fluctuated, from a low of 9,295 tons in 1995 to a high of 15,160 tons in 1996. Hot house vegetable production which stood at 820 tons in 1994 increased to 1,160 tons in 1996 and decreased to 860 in 1997, the quoted reason being the increase in energy tariffs. Milk output has remained stable at approximately 550 tons per year. Milk herd has decreased slightly, from 1000 heads in 1994 to 944 heads in 1997, indicating a slight increase in productivity. Overall cattle herd has increased slightly as well, from 2,354 heads in 1994 to 2,505 in 1997. There were 105 hogs remaining at the farm in 1994, the remnants of a once 10,000 head strong herd. As of 1995 the hog herd was eliminated altogether. Finally, daily weight added fluctuated between a low of 639 grams in 1995 to a high of 674 grams in 1996.
Profitability of "Prinevskoe" was the highest in 1995 and stood at 17 per cent of sales. It decreased to 3.8 per cent in 1995 and increased again to 7 per cent in 1997. The role of subsidies has increased from a low of 3 per cent in 1995 to a high of 7.6 per cent of COGS in 1997. Non-commercial credits have decreased as well from 16 per cent of COGS in 1994 to 2.6 in 1997. As will be shown below, "Prinevskoe" enjoys some other forms of preferential treatment by the oblast government. "Prinevskoe" uses commercial credits as well, having borrowed to the tune of 6 per cent of COGS in 1994. Outstanding commercial credits fell to 3 per cent of COGS in 1997.

The manager of "Prinevskoe", Mr. Golochvastov became manager in 1989 by appointment, before the beginning of restructuring. Prior to the appointment, he worked in "Ruch'i" as a head of a brigade and then as an agronomist and a chief production specialist, a career that parallels that of Mr. Trafimov. This is where the resemblance ends. Mr. Golokhvastov comes across as a much more cautious man who man relies on the existing structures. The changes that he introduces is a combination of market opportunity with the best the state support still has to offer. For this he cultivates old pre-reform relationships and combines political entrepreneurship with gradual adjustment to new realities.

None of the experimentation with meaningful shareholding is observable here. "Prinevskoe" has 1500 shareholders, a big share of them are pensioners, a fact that does not disturb Mr. Golokhvastov. "We are delivering foodstuffs to our pensioners anyhow."
Shares have been distributed in the beginning of the reforms and have not been revalued since, despite runaway inflation in 1992 and 1993. In Mr. Golokhvastov's own words, "If we translate shares into money that will be very little money." Mr. Golokhvastov is aware of the high value of land of his enterprise and capitalizes on it. He used his extensive government connections to achieve the impossible: 15 hectares of land were legally reclassified from agricultural to non-agricultural use, which allowed Mr. Golokhvastov to sell the land for cottage construction. "One brigade returned its shares for that." Just like that. Commercial price of land in the suburbs of St. Petersburg is estimated at $20,000 - $50,000 per hectare.

In terms of salary payments, salaries are stable and depend on the description of the tasks of the worker. In the interview Mr. Golokhvastov emphasized the social obligations to the employees, placing them before the economic constraints of the enterprise. "It is difficult to pay differentiated salaries to people. We have 600 women working for us, 40 per cent of them are single mothers, 35 per cent are single breadwinners. I cannot fire them." There are significant in-kind additions to the salary as well. "We are giving about 500 kilos of vegetables to workers and this is not counted as salaries. We are also providing our pensioners with about 200 kilos of vegetables and potatoes. The most critical people in the production process, however, are provided commercial incentives. In 1997 tractor and truck drivers at the time of harvesting and sowing were paid from Rb. 10,000 to 15,000 per hectare, depending on the speed and quality of work. The specialists - engineers, technologists, accountants - are getting bonuses after harvesting and sowing. These incentives have not changed much since late Soviet times. The attitude of the
employees is judged as unchanged as well: "We have 1500 people and no one wants to count." An interview with the chief accountant of the collective farm in 1999 indicates that the attitude had changed and that the administration was discussing how to handle necessary redundancies which would have to go beyond attrition.

In terms of organizational structure, there are no dramatic changes either. The enterprise is officially governed by a Council of Directors which includes representatives of shareholding employees of the enterprise. Mr. Golokhvastov combines the position of the general manager with that of the Chairman of the Council of Directors, and one gets the impression that the oversight role of the council is fairly limited. Production decision-making remains centralized. The accounting department is staffed with 10 full time employees that account for all the production of the farm. The management decides on the distribution and use of resources among different production units.

There is a commercial department that deals primarily with the organization of barter transactions. The volume of these transactions is increasing, not because of the kartoteka filing of the enterprise itself – it does not have one - but because of the circumstance of their partners.6 As in the previous case, the complexity of barter transactions may be very high. In the words of the Head of the Commercial Department: "The share of barter has been growing. For example, I sold Rb. 1 billion worth of cabbage

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6 During a meeting in 1999 the chief accountant of "Prinevskoe," Ms. Ivanova, said that the role of barter has decreased again and constituted no more than 10-15 per cent of transactions.
seedlings, but was paid in brick. Now I am trying to dispose of the brick. A construction organization is working for me, so I repay in building materials.”

The manager himself is occupied with the organization of financing for the enterprise, but of a much higher order. Some of these transactions involve technological innovation as well. For example, a dairy-processing venture has been negotiated with a Swedish firm Alfa-Laval. It is an intergovernmental project, with the Swedish government providing 20 per cent of the financing, and Alfa-Laval providing another 20 per cent. The expectation is for the oblast government to contribute Rb. 2.6 billion to the project. The Minister of Agriculture of Sweden visited the farm and spoke favorably of the project. Another project is with a Finnish firm and two other district JSCs to produce high quality cabbage seedlings. Mr. Golokhvastov secured a $1 million grant for this project as well. “I would not have been able to secure the funds for this venture alone, but we did secure the money as a group of producers.” This high power negotiating takes up almost all of Mr. Golokhvastov’s time, but secures a fairly stable flow of resources from various government and private sources. “With the banks it is the same thing. Once my reconnaissance reports there are funds available for agriculture, one has to move quickly, provide the business plan and all the other necessary materials.” This way “Prinevskoe” was the first to obtain a subsidized credit from the Special Credit Fund on-lent through SBS-Agro. “Prinevskoe” was granted a Rb 1 billion loan out of Rb. 10 billion allocated for the whole oblast!
"Prinevskoe" is using predominantly old-time established partnerships with *buyers and suppliers*. As a big district player it is in the position to demand fair treatment: "We are selling milk to the same milk processor, the same one we have been dealing with for ages. We have an agreement with them that they cannot sell milk below a negotiated price, otherwise they will be underselling us. If they do, we will stop selling to them."

There are milk retailing units that sell milk for the enterprise at farmer's markets and in other popular places and generate "live money" for the JSC. The vegetables are sold in bulk to the same warehouses they were sold to before restructuring started. The warehouses owe the JSC Rb. 1.5 billion, but Mr. Golokhvastov believes it is not a sufficient reason to change partners, since, in his words, other wholesalers will not be better. There are other ad hoc offers to buy vegetables that the JSC responds to if the new client can demonstrate an ability to pay. JSC also has its own stores where vegetables are retailed at a 10 per cent discount to prevailing market rates. For seeds, the JSC has an arrangement similar to the one "*Ruch'i*" have with the Admiralty: the port is buying good seeds for the JSC and the JSC repays in vegetables at a 20 per cent discount to the prevailing market prices.

The strategy for survival and success in the two enterprises differs. The actively pro-reform Trafimov sees long-term success in a deep restructuring that starts from within, with the realignment of incentives both for the employees and for the production units of the JSC. In "Prinevskoe" it is an active and successful use of government connections with the necessary changes and adjustments on the margin. Mr. Golokhvastov's vast contacts allow him to leverage support both nationally and internationally. Support comes
both in the form of financial allocations and in the form of transfer of know how, putting the enterprise above domestic competition even without drastic internal restructuring.

Both Trafimov and Golokhvastov went on to use their considerable administrative talents in the political arena, one in that of elective politics and the other as oblast executive. Mr. Golokhvastov has been appointed Vice Governor of LO for agriculture. His place in "Prinevskoe" has been taken by the Director of the Commercial Department. Mr. Golokhvastov's former colleagues and subordinates expect a favorable change in the levels of state support to "Prinevskoe".

Both of these cases are cases of successful survival and adjustment. These enterprises are both also cases of above average initial conditions in terms of available equipment and of above average managerial talent that encourages the enterprises to take unorthodox paths, with one oriented at internal restructuring and the other on the building of external support. How does restructuring happen under less auspicious circumstances? The case study of "Scheglovo" will help answer this question.

**Scheglovo**

"Scheglovo" is a smaller farm both in terms of the number of people employed and in the size of ploughed land. The number of employees decreased between 1994 and 1996 from 268 to 249, then increased slightly to 283. The size of meadows and pastures is 1,000 hectares, which is equal to the size of ploughed land, approximately 1,000 hectares as well. The number of tractors has decreased from 47 in 1994 to 35 in 1997. The size of
the herd has decreased only slightly from 1,473 in 1994 to 1,425 in 1997. The number of cows remained stable at approximately 650 heads. Productivity of the cows is lower than in “Ruch’i” and “Prinevskoe”, but higher than the district average and has been increasing, from 2,900 liters per cow per year in 1994 to 3,250 liters in 1997. Daily weight added for the cattle has remained stable, at approximately 400 grams.

“Scheglovo” started to produce vegetables in 1995 (before that its crop production consisted primarily of berries and flowers). In 1995 it produced 150 tons of vegetables, which more than doubled to 395 tons in 1996. In 1997 “Scheglovo” produced 315 tons of strawberries and other berries, and grew 2 hectares of flowers. The size of the crop and the acreage remained stable.

The role of external financing is very small. In 1994 the enterprise experimented with commercial credits and was put off by high interest rates. After having repaid the 1994 loans the enterprise did not seek commercial loans. The role of subsidies has decreased drastically, from 13 per cent of COGS in 1994 to 1.4 per cent in 1997. Non-commercial credits, primarily state crediting was an ad hoc episode in 1995, when the size of credits obtained constituted 13 per cent of COGS. In the subsequent years non-commercial credits disappeared from the balance sheet all together.

As the manager was absent from the farm, the interview was carries out with the chief economist of the farm Ms. Ivanova.
In her opinion, the reason for continuous profitability of the enterprise is a highly diversified crop mix largely inherited from the past. As different crop “comes on line” at different times, the farm receives revenue continuously throughout the year. In addition to milk, which is a year-round cash generating activity, the enterprise grows seedlings that are sold in the spring, flowers and strawberries that are sold in early summer and fruit that is sold in early fall. The enterprise added vegetables to its production menu, planting potatoes, carrots and cabbages, a new activity for the JSC. One of the reasons is that vegetables are widely acceptable barter items, which facilitates transactions with some input providers. Berries are highly perishable and cannot be used for this purpose. An additional source of cash is rental of the former currant processing plant to an alcohol bottling company. The enterprise tries to finance all the necessary investments and repairs from internal resources. The only subsidy that “Scheglovo” received from the oblast government was a subsidy for heating to heat the hothouses.

The size of the workforce has remained more or less the same. Approximately 30 people left with land to start individual farms. The management did not try to stop them and created no obstacles to exiting with land shares. Other employees are more attached to the farm than before, as many of them previously worked in a rubber factory in winter and were laid off. Salaries are paid in cash, since “people do not want goods and they are right”. Almost all the employees are shareholders. There is a rule that one person can hold no more than 150 shares, which amounts to about 1 per cent of all the shares issued. The enterprise does not want to sell its land. It actually went to court twice to stop local government from selling their land for summer cottages.
Organizationally, the enterprise has not changed much. The crop unit is subdivided into flower, orchard, nursery, and feed and fodder brigades. Another unit is meat and dairy, and the third is the mechanized unit. In 1997 milk was the most profitable item of production, since the enterprise has its own large pastures and meadows and produces its own feed and fodder. The commercial department has expanded and many people are assigned to retail output as different crops come on line. There is no special guard unit in “Scheglovo”. The employees take turns guarding the fields from thieves.

The enterprise is trying to retail as much of its output as possible without intermediaries. Retailing is a new activity for the JSC. All the berries and meat are retailed. The enterprise bought a small truck to carry berries to more distant locations. With milk, there is a contract with a milk processor. “Scheglovo” values this sales channel even though prices are low because it needs an outlet to sell milk in the winter, when the summer dwellers leave and demand for milk in the district falls. About 30 per cent of milk is sold to the milk processor, the same one that has been “Scheglovo’s” partner for many years. “Sheglovo” is a shareholder in the enterprise, so it gets better prices. “Scheglovo” pays its dues into social funds in-kind by food deliveries to a school and a hospital.

Ms. Ivanova admits that this is a survival, not growth strategy. She feels that the situation is too unpredictable to try anything radical. She foresees problems in the future as the need for new investments becomes unavoidable.
“Scheglovo” survives and is profitable partly because of its crop mix. By adding vegetable production, it managed to create a viable retail network that allows it to sell its output without the assistance of intermediaries. When the management sees the need for more investments it mobilizes internal resources.

Of the three enterprises that have been consistently profitable two are undergoing significant restructuring. Both are adding processing facilities. One is also trying to reform the attitude of employees to their work and to their enterprise. The third has created a large retail network to secure cash flow and insulate itself from the perils of external financing. In two out of three cases the role of the state has been small and diminishing.

Though it is instructive to study apparent successes the interesting question is what makes others attempts unprofitable. Is it the lack of restructuring or is it deeper changes that demand short-term non-profitability? To get a better understanding of this issue, the cases of two enterprises are presented, one unprofitable and one displaying inconsistent profitability.

Vsevozlozskoe

“Vsevozlozskoe” registered non-profitability for the first time in 1997. It is a large mixed dairy and vegetable farm with characteristic for the district division between milk and dairy productions. Its ploughed land constitutes 2,500 hectares. Meadows and
pastures are approximately 1,700 hectares. This ratio of ploughed land to meadows and pastures has not changed between 1994 and 1997, but the crop mix did. The vegetable output has increased between 1994 and 1997 from 4,114 tons to 5,748 ton. Hothouse vegetable output has increased from 1994 to 1995 (229 to 324 ton), then decreased to 197 tons in 1997 due to increased heat tariffs. Potato production has more than doubled from 545 tons to 1,360 ton. Meanwhile, the workforce has declined from 752 to 612 employees and the tractor fleet went down from 77 to 71. The hog herd stood at 2,000 in 1994 and was eliminated by 1997. The cattle herd remained fairly stable at 2,700 heads. The number of cows decreased from 1,300 to 1,000. Milk yields per cow decreased from 1994 to 1995 (from 2,370 liters to 1,645 liters per cow), but increased again in 1996 and 1997 to 2,436 liters per cow. The role of subsidies is small and falling, from 7 per cent of COGS in 1994 to 3 per cent of COGS in 1997. Non-commercial credits - state crediting - has decreased from 10 per cent of COGS in 1994 to 0 in 1997. Commercial credits were tried in 1994 (3 per cent of COGS) with no commercial crediting in 1995 and 1996. In 1997 “Vsevolozhskoe” again assumed a commercial credit of 1.4 percent of COGS.

The manager of “Vsevolozhskoe”, Mr. Shavarov, has been with the enterprise since 1980, first as an engineer of mechanized livestock production and then, as of 1988, as a manager. With price liberalization the enterprise’s main lines of business, hog production and cattle breeding, became unprofitable. Viborgskoe, which had a standing contract with “Vsevolozhskoe” to fatten the calves and return them to “Vsevolozhskoe” refused to return the calves at the agreed prices. The farm faced a crisis.
The manager was ready to try new lines of production. In 1991 the JSC started a fur farm. Then, in 1994 fur animal breeding started to be considered part of the luxury goods industry. Tax treatment changed and excise tax was added to the tax burden of the enterprise, which made further fur production unprofitable. Another effort to venture into new lines of production was the decision to exploit mineral springs on the territory of the farm. The manager found a partner, a bottling plant. The arrangement was that the JSC would do the drilling and the bottling plant would bottle the water. The bottling plant did not come through with the bottles, so the venture collapsed.

After these unsuccessful ventures into new lines of production, Mr. Shavarov decided to expand the lines of production that were known to be profitable for other JSCs in the district. Potato production and vegetable productions were increased dramatically. The enterprise was self-financing the purchase of equipment necessary for this purpose. One line of investment into retooling was financed by a loan from a Polish company granted for the purchase of the hay collecting equipment and technologies produced by the same company. District administration guaranteed that loan. "Vsevolozhskoe" is also a partner in the purchase of seedlings from a Finnish firm, a transaction initiated by the JSC "Prinevskoe". "Prinevskoe" will provide seedlings to start the operation. Once we grow the seedlings we will be able to undersell the local monopoly ("Prinevskoe") and sell to individual farmers and to the population at large. "Since large-scale vegetable production is a new business for us, we are trying to attract expertise from wherever we can." An individual farmer is invited to assist in hay mowing and is paid with a percentage of hay for his services.
To finance the purchase of new equipment, Mr. Shavarov is trying to use meat for barter. Despite a government decree prohibiting barter at below market prices, Mr. Shavarov admits that he is bartering at below market prices, since he thinks it is the cheapest way to get the equipment as “getting cash in this environment is impossible and hogs are a loss making part of the farm anyhow.” With non-specialized agricultural equipment the use of barter was not possible and “Vsevolozhskoe” paid in cash for the purchase of 2 new tractors, 4 cars, and 1 minibus in 1996.

“Vsevolozhskoe” was using CCs and was the only enterprise that repaid CCs in full (confirmed by the District Department of Agriculture). The only commercial credit in 1997 was a short-term commercial credit from SBS-Agro to procure fertilizers that was repaid. “We prefer to repay in-kind, as it is easier for us at this point, but we are aware that this practice distorts markets, so we try to gradually get away from it.” “Vsevolozhskoe” is much more punctual with credit repayments than other enterprises. “Since 1988 we were repaying all our debts.” However, this rare for the district financial discipline was not rewarded with higher levels of subsidization. The promised subsidies for 1997 did not materialize except for the subsidy for growing seedlings within the “Prinevskoe” project.

The organization of production is undergoing restructuring. The vegetable unit has expanded. A sales service has been created. Vesvolozhskoe does not hire external guards. The manager organized patrols formed by the employees of the enterprise. At harvest
time there is a special arrangement with local police to patrol the fields more carefully than they might otherwise. The manager realizes that structural change needs to be more drastic: "I have increased production of vegetables compared to 1995, yet I make 4 times less profits. This means that we need to change the crop mix completely. We need to add processing. We need to package our output better."

The main inputs are provided by old contacts, but in new ways. For example, in 1997 the milk processor paid for milk in fodder that it received as a payment from another JSC. Fertilizer was paid in-kind as well. There is a continuous cooperation with Viborgskoe, with whom "Vsevolozhskoe" barters heifers for feed. "This is a standing relationship. The prices are slightly below the market, but there is trust. Getting paid for deliveries is often very difficult, as payments are delayed." With other suppliers payments are primarily in cash, as "they do not have the warehouses to store vegetables. Also, at this point, it is easier to deal in cash. Barter constitutes about 15 – 20 per cent of our transactions."

"Vsevolozhskoe" started to buy superior quality seeds from a Dutch firm. Payments are primarily in cash, but sometimes there is a barter component to them as well.

Vegetables are sold at below the market price if the buyer makes payment in advance and in cash. Meat is primarily bartered, as it has been difficult to find other markets. Milk is retailed from the moving vans of the JSC.
Mr. Shavarov admits that his workforce is excessive for the new purposes of the enterprise. It is not just that he needs to fire old workers; he also needs to hire new people. Attracting qualified professionals is difficult: "I cannot offer them apartments as I used to be able to do." Firing old ones is difficult as well. "It is difficult to separate workers into black and white. It was not their fault that they found themselves in the unprofitable part of the enterprise. Honor is above profits." Yet, in 1997 the manager admits that a decision was taken to lay off people that worked at the milk farm, since the number of cows has decreased. "There are 60 people working now, we want to cut it by 10 per cent. We are located close to the city, they will find another job." Payments to the employees are primarily in cash. The service that is provided in addition to salaries is preparation of individual plots for sowing (ploughing, fertilizing).

Shareholding has not developed as a concept beyond the renaming of traditional payments and services. Trading of shares is not developed either.

Mr. Shavarov's goal is to preserve the farm. "I promised this to my employees, now I cannot carry it out." In 1999, after the study was over, I contacted the District Department of Agriculture. "Vsevolozhskoe" was profitable again.

"Vsevolozhskoe" is an enterprise that energetically trying to restructure. The manger has experimented with new ventures, and expanded profitable lines of production. For the manager, restructuring means changing the production patterns, not the workers. This painful process is just starting. The enterprise self financed the main
part of investments needed for restructuring. It made use of the old trusted contacts with neighboring JSCs in a new way, starting joint ventures and bartering with them to acquire the needed inputs for new production. The enterprise also learned how to generate cash to transact with the suppliers that do not accept barter payments. Overall, the enterprise demonstrated ability to change its external transactions more than its mode of interaction with its own employees.

"Vsevolozhskoe" has transformed itself into a vegetable producer first and a livestock producer second without the old-style subsidization from the state. Furthermore, the personal ethos of the manager precluded the enterprise from using the indirect subsidy of non-payments to the state, which has been extensively used by other managers regardless of the profitability of the enterprises. It is not clear if there is any long-term benefits associated with such rectitude or if honest transacting in transition carries all the costs of foregone revenue and none of the benefits of improved creditworthiness.

It is also important to note that the district government is experimenting with the new type of assistance, guaranteeing the foreign credits of those enterprises they believe to be capable of repaying. The manager did not mention any effort on the side of the state to control or restrain either the production or the sales of the output. As with the previous enterprise, the manager places more value on the goal of preserving the workforce and the enterprise as their source of income than on that of maximizing profit.
**Romanovka**

The profitability of “Romanovka” has been negative for all four years of the study. The depth of non-profitability fluctuated from -32 per cent of sales in 1994 to -194 per cent of sales in 1996. In 1997 profitability of “Romanovka” stood at -33 per cent. “Romanovka” holds 1,300 hectares of ploughed land and 98 hectares of meadows. The tractor fleet has decreased from 39 in 1994 to 32 in 1997. Between 1994 and 1997 the number of employees has decreased from 389 to 175. Over the same period production of potatoes has increased from 391 to 786 tons. The production of vegetables has increased from 296 to 880 tons. In 1994 “Romanovka” did not have a cattle herd. By 1997 it had 216 heads of cattle of which 92 were cows yielding 3,000 liters per cow. The number of hogs has collapsed from 6,718 to 29. “Romanovka” has little external financing.

At the beginning of the reforms “Romanovka” was primarily a hog producer. Subsidies decreased from 10 per cent of COGS in 1994 to 2 per cent in 1997. Non-commercial state credits were non-existent in 1994 and appear as a minor 2 per cent of COGS in 1997. Commercial credits also appear for the first time in 1997 and constitute 1.4 per cent of COGS.

The manager in “Romanovka”, Mr. Belajev was elected to the position in 1995. Before that he has worked as an economist at the same farm. At the time of the interview in 1997 Mr. Bel’ajev was 33 years old, the youngest manager in the group interviewed.
In 1990 “Romanovka” was primarily a hog farm and had 40,000 hogs. The increase in fodder prices made pork production deeply unprofitable: costs of fodder amounted to Rb 9,000 per kilo of weight mass, and total cost of production came up to Rb 18,000 per kilo. While the market price of pork (primarily Polish imports) was Rb 10,000 per kilo. The collapse of the enterprise led to an exit of employees from the farm. In 1990 there were about 700 employees in “Romanovka”. About 350 of them left to start individual farms, tempted by the promises of financial support from the federal government. At the time of the interview in 1997 only 6 of those 350 had farms that were producing above subsistence levels.

The new “Romanovka” manager decided in 1995 to restructure by starting dairy and vegetable production.

Before 1995, “Romanovka” produced silo and grains that were used as pig feed. All feed produced at the farm was used internally, consequently there were no traditional sales channels for silo and fodder grains. Attempts at establishing partnerships with new suppliers demonstrated that enforcement of contracts was problematic and on a number of occasions “Romanovka” had to go to the arbitrage court to receive payments. “Romanovka,” therefore, minimized the search costs and the uncertainty of establishing new sales channels by diversifying its old working relationships with the neighboring collective farms. In this environment “Romanovka” and its barter partners demonstrate a double coincidence of wants, a need for fodder in neighboring enterprises and a need for a new herd for “Romanovka.”
In 1996 "Romanovka" acquired 212 cows, heifers and calves from the neighboring collective farms. This was the only channel for herd creation used by "Romanovka." The amount of silo bartered for livestock was 2,800 tons. This constituted 65 per cent of the cumulative silo production for 1995 and 1996.

The next step in starting a viable dairy production for "Romanovka" was to acquire dairy equipment. Recognizing the need for such an acquisition for the collective farm, local administration gave "Romanovka" permission to change the legal status of a 1.2 hectare land plot from agricultural use to non-agricultural one. Matters could have been helped by the fact that the former manager of "Romanovka" went on to become deputy head of the district administration and “helped to resolve issues.” “Romanovka” passed the land to the local military unit for construction of apartments for its personnel. As the military unit had no cash to pay for the land, “Romanovka” signed a contract whereby the JSC would be given ownership of a number of apartments once they were constructed. “Romanovka” expects that sales of these apartments will generate cash necessary for the purchase of dairy equipment.

“Romanovka” retails milk, partly because it needs to get the retail price to break even, partly because in the words of the manager of “Romanovka”, all wholesale markets were divided long ago. In summer, the local market is a sufficient outlet for the milk produced at “Romanovka.” In winter, as the herd grows, it becomes more difficult to find sales channels for the milk produced at the farm. “Romanovka” does not deal with the
local milk processor, as do other collective producers. Since it recently entered the dairy market, it does not have a standing relationship with the processor and fears inferior treatment and non-payments.

Mr. Belajev believes that his farm can achieve profitability. The comparative advantage comes from the fact that "Romanovka" grows its own feed. In the summer of 1997 the cost of producing feed was estimated to be Rb. 700 per kilo, while the market price for feed was Rb. 1300 per kilo. The problem is a lack of expertise and adequate equipment necessary for dairy production. Hog barns have been converted into cowsheds, but the milking equipment has not been acquired yet, pasteurization equipment has just been procured, and there is still much manual labor involved.

"Romanovka" has received little in terms of subsidized financing that could help restructuring. In 1995 it received a small subsidy of Rb. 158 million from the local government's animal breeding program. It also received federal compensation for the procurement of feed.

"Romanovka" generates cash by renting some of its land to outsiders who want to start vegetable gardens. In the summer of 1997 60 hectares were rented out. The collective farm ploughs and fertilizes the land. The rent they charge ranges from Rb 300,000 to Rb 2,000,000 per hectare depending on the location and the quality of land.
“Romanovka” receives fuel as CC. It has not repaid 1996 credits, yet obtained a Rb. 50 million CC in 1997. The credit does not cover all the fuel needs of the enterprise. Similarly, like the majority of other producers, “Romanovka” is in arrears for tax and electricity payments.

The Commercial Credits were granted to “Romanovka,” according to the manager, after “a very influential person guaranteed the credit”. The most likely person to have done this is Mr. Suchov, the deputy head of the raion administration, and former manager of “Romanovka.”

Besides being two years in arrears on tax payments and one year in arrears on fuel credit payments, “Romanovka” has not paid its utility bill for more than a year, and has delayed salary payments for 3 months, a month longer than the district average.

Salaries are paid both in cash and in-kind. Unlike other enterprises, traditional services that a collective farm used to provide started to count towards salary payments. These services include preparation of the personal plot for sowing. The average size of a personal plot is 0.35 hectare. Recently employees/shareholders voted for the allocation of an additional 0.5 hectare per shareholder/employee for personal production. This plot is also ploughed and fertilized, (when fertilizers are available) using “Romanovka” equipment and inputs (fuel, fertilizer). “Romanovka” also supplied its employees/shareholders with 500 kilos of hay and 300 kilos of grain in 1996. If the employees agree to a substitution, they are provided with foodstuffs at cost toward salary.
payments. If, as part of the barter arrangement, "Romanovka" obtains building materials or other inputs or construction materials, they are used as in-kind payments as well.

The manager reports that the majority of the employees were working "with enthusiasm" as they were involved in the decision-making about the change in the crop mix and saw it as the only path to survival and profitability.

The scarce cash revenue was used for emergency purchases of parts for equipment as well as for emergency cash payments to employees that demonstrated a special need for cash: weddings, funerals, disease in the family.

Mr. Belajev does not believe that the employees of the farm make a distinction between the salary payments and the payments that they receive as shareholders, or that the workers of the farm have a developed sense of ownership of the enterprise. There is no concentration of shares in the hands of one person or a group of people, and there is a clause in the charter of the farm that precludes such concentration from happening.

Mr. Belajev faces a problem with shareholders, who were employees, hence members of the collective farm before restructuring, but who have left between 1991 and 1995. These shareholders who are no longer collective farm members come to the farm at harvest and demand dividend payment. In 1997 the management refused to pay because of negative profits.
To deal with the situation, the manager plans legal restructuring of the enterprise. Currently “Romanovka” is a limited joined stock company. The manager’s plan is to reorganize “Romanovka” into a “tovarischestvo,” a producers’ cooperative. By doing so he hopes to legally get rid of the 450 shareholders that are the former employees of the enterprise and to take the more productive employees into the new structure. He also hopes that the change of status will induce the government to forgive the old accumulated debt of Rb 2 billion. If the debt is not forgiven, the manager is willing to give the assets the enterprise is not using (e.g. pig sties) in lieu of debt repayment. The overvaluation of assets, a result of accounting rules designed during the time of high inflation, makes him believe that such a repayment will not be too onerous.

“Romanovka”’s goal is different from that of the majority of collective producers in the raion. Only one other collective farm among the surveyed was trying to restructure its production completely. As was demonstrated above, for the majority of producers the goal is surviving and preserving the size of production in the short term. The goal for “Romanovka” is to develop a new line of production and profitability.

Despite the fact that changes in the market environment made former hog producing “Romanovka” deeply unprofitable, it is on the path to restructuring. Such restructuring became possible due to energetic managerial leadership as well as standing partnerships with other collective farms ready to conduct barter transactions with “Romanovka” despite its non-profitability. Other collective farms believe that local governments will not allow “Romanovka” to fail. There is also a double coincidence of wants between
“Romanovka” and its barter partners: “Romanovka” needs to start dairy production while other farms need feed for their herds. As long as barter deliveries allow production to continue the short-term negative profitability of the enterprise does not impede continuation of production based on mutual crediting of such operations.

Financing that comes from the state is minimal. Yet, there is support in helping to “push through” legally complicated issues. Again, there is no effort on the part of the state to restrain or control the pace and direction of restructuring or of the activity of the enterprise in general.

Conclusions to LO-VR Case Studies

The reviewed cases allow us to draw some conclusions about the pattern of restructuring in LO-VR:

The relationships with the employees vary in terms of their progression away from non-monetized provision of agricultural and social services. The managers are reluctant to fire non-productive or redundant workforce. However, laying off plans have been elaborated in three of the studied enterprises. Payments are primarily in cash (see Chapter 6 for more detail). Traditional service provisions consist universally of preparation of a plot of land additional to the household plot for sowing and sometimes of additional free or discounted deliveries of vegetables produced by the enterprise. Three of the five reviewed JSCs provide these services as a form of payment for the use of shares
One enterprise makes these services part of in-kind salary payment, while one explicitly avoids providing non-market based services and payments. None of the interviewed managers believe that the provision of social or agricultural services to other villagers who were traditional recipients of such services is either feasible or desirable.

In two of the JSCs, one profitable and one unprofitable, there is a conscious effort to change the structure of shareholding, which indicates that for these enterprise shareholding is becoming a meaningful concept. In one JSC the effort to foster the sense of ownership in the employees was linked to actual monetary investments in the enterprise. None of the managers reported attempts on behalf of the employees to use their power as shareholders to solicit expanded provision of services, a widely reported state of affairs in SO-ER. It is possible to conclude that the employees of the LO-VR enterprises did not resist change in the product mix primarily because they realized that the budget constraint of the enterprise was hardening and the management was truly incapable to continue with the service provision without undermining the existence of the JSC. This is different from the situation in SO-ER, where, as we will show below, SO-ER managers report on pressure from the employees to continue with service provision.

The relationships with suppliers and buyers have evolved as well. The larger players have developed contacts with international suppliers. They have also expanded their network of domestic partners, often through complex barter transactions. On the other hand, they continue to interact with their old partners, the processing companies and the warehouses, building on existing trust. The smaller players have invested more in the
development of retail networks and build on the cooperation among the collective farms in the region.

In the majority of cases the role of the state varied between marginally supportive to neutral. The state provided minor subsidies in an ad hoc manner. In one case a big agricultural producer used his political connections to solicit outstanding level of support from the oblast government. In two cases, oblast administration assisted in solving a legally difficult situation in favor of the JSCs. All the managers reported a declining role of the state and of state-sponsored financing in the operations of the JSCs. None of the managers interviewed complained about the constraints imposed by the state on the chosen path of transformation or about price controls imposed by state agencies. The government's efforts at tax collection and collection of payments into social funds were minimal as well.

All of the reviewed enterprises made an effort to restructure. Two larger better-off enterprises, which are also the ones that had a product mix more compatible with the market environment concentrated on the use of innovative technologies and achieving higher yields. Two JSCs with a product mix less compatible with the market environment were changing the line of production more dramatically, concentrating on acquiring the assets and skills necessary for this transition. One JSC expanded vegetable production to generate "a currency" necessary for barter.
The organizational structure of all of the reviewed enterprises has changed. In all four JSCs, these changes were deep and involved changes in the product mix or introduction of significant processing capabilities. One JSC introduced marginal changes, building on a favorable product mix inherited from the pre-reform times. All the enterprises introduced commercial services, to deal with sales and marketing. The larger players have special departments that are dealing with complex multi-step barter transactions, treating them as arbitrage opportunities. The smaller players use less complex barter arrangements as a means of lowering transaction costs. The bigger players also added guards to the list of seasonal employees, while the smaller ones mobilized their workers to patrol the crops. The three JSCs that added new lines of production to their product mix, vegetable production in 2 JSCs and a dairy farm in one, have redeployed and retrained their employees for the new tasks.

All the managers of the analyzed JSCs have been with the JSCs for many years. Two of the more radical reformers have been elected to their current positions by the JSC shareholders, indicating that there is a consensus between the management and the employees that restructuring is unavoidable.

*Case Studies from SO-ER*

*Berezovskoe*

"Berezovskoe" is the only farm in the raion that has never been unprofitable. In 1994 its profitability stood at 22 per cent of sales and went down to 6 per cent in 1995.
and to 0 in 1997. Between 1994 and 1997 the number of employees decreased from 313 to 246. Brezovka’s ploughed land consisted of 6,052 hectares in 1994 and went down to 5,831 hectares in 1997. Pastures remained stable at about 790 hectares. Gain output has fluctuated between 1880 tons and 6,495 ton. Fluctuation is explained primarily by weather patterns. Vegetable output constituted about 1,000 tons in 1996 and 1,200 in 1997. The second line of production is cattle. The cattle herd has decreased from 1,336 head in 1994 to 469 in 1997. Surprisingly, milk output has fluctuated widely as well, registering 1.71 tons of milk per cow in 1994, 4.7 tons in 1995, 1.86 tons in 1996 and 3.62 tons in 1997. The number of cows has decreased dramatically from approximately 500 in 1994 to 100 in 1997. However, the hog herd has actually increased from 420 in 1994 to 508 in 1997.

Subsidies played a fairly important role in “Berezovskoe”’s financing. In 1994 the level of subsidization was 17 per cent of COGS, but by 1997 this number went down to 2.3 per cent. However, the role of non-commercial credits increased from 0 in 1994 to 12 in 1996 and decreased again to 2 per cent in 1997. This low percentage of non-commercial credits in 1997 partly reflects the increase in grain harvest in 1997. Commercial credit was the highest in “Berezovskoe” in 1996 – 13 per cent of COGS.

Mr. Micheev was appointed director of “Berezovskoe” in 1987. Before that he worked in the same enterprise, first as a brigade leader, then as an agronomist.
Mr. Micheev's strategy is to find markets for the output of his enterprise. "40 per cent of my time is spent on finding sales markets." To achieve this goal he maintains business relationships with buyers all over Russia and abroad. "This is the only way not to let the (oblast) government control my output. Food Corporation is a monopolist. It is an extortionist, Mafia-like operation. Everybody owes to the Corporation." To be able to use the benefit of the lower than market interest rates of the CCs, yet not to be disadvantaged by the Corporation's grain prices, Micheev tries to repay in time and in cash. Mr. Micheev maintains a geographically dispersed network of buyers. He sells melons and watermelons in St. Petersburg, processes oilseeds into oil and dyes and sells the final product in Turkey, and sells grain in the Russian Far North at premium prices.

Another strategy is "to process everything." Because the state enterprise asks for 25 per cent of the processed production, Mr. Micheev is currently negotiating with an Italian company, a construction of a distillery, to process the wheat he produces.

Mr. Micheev organizes daring innovative market transactions, yet he does not believe organizational restructuring of the enterprise to be a priority. Administratively the structure of the JSC has not changed. The main specialists have been given additional tasks of marketing some of the output. Mr. Micheev hires 4 guards for the time of sowing, a precaution that was not needed before. All the vegetable and milk is sold wholesale, so no additional sales force has been created for this purpose.
Mr. Micheev willingly preserved *social services* to the employees believing these to be good for the morale of the enterprise. He maintains an outpatient clinic, a music school and has recently opened a hair salon. He believes that expenditure of supporting these services (Rb. 500 million per year) is justified as it induces qualified specialists to stay with the enterprise. For the same reason he did not allow privatization of the JSC-owned apartments by the employees, as was decreed. “The apartments are necessary to attract new specialists, so why should I give them away?” Recently he has invested in a gas pipeline to the collective farm and to the village. “I paid for it by myself, nobody compensated me.”

Mr. Micheev tries to avoid barter transactions, the only manager among those interviewed in the SO-ER to do so. He says that barter constitutes no more than 15-17 per cent of his transactions, primarily for melons and watermelons. Mr. Micheev plans to use part of his vegetable production as a tax payment by delivering vegetables to budget organizations. He sees it as a profitable arrangement as there is no quality control with state deliveries of vegetables.

Livestock production is not profitable. It is preserved “to feed the people,” as employees get part of their payment in meat. Wheat, on the other hand, can be very profitable “if you have brains.” The cost of production, according to Mr. Micheev is Rb 18,000, the price of wheat is 420,000. So, on an investment of Rb 1.5 billion you get Rb 15 billion on 30,000 tons (Mr. Micheev uses the example of 30,000 tons of wheat as a
maximum annual production of a large wheat farm in the region. By SO-ER standards, "Berezovskoe" is a small collective producer).

Mr. Micheev does not depend on internal resources of the enterprise alone to finance his expenditures. He deals with 4 different commercial banks securing short-term loans, particularly in wintertime when there is little cashflow from agricultural production.

The fact that the employees have become shareholders has not changed the nature of the relationship between the management and the employees in the enterprise. "If I need to fire a shareholder I do, there is no difference." Mr. Micheev admits to holding 15 per cent of shares of the enterprise himself. There is no internal trading of shares in "Berezovskoe." Yet, there is payment of dividends. Dividends are calculated on the basis of salaries, a method which clearly favors administration of the enterprise and sounds more like a bonus than a dividend. "After we count all the profits for the year, we put aside a percentage for dividends. This year it will be 17-18 per cent of profits. The share of dividends one receives is calculated on the basis of one's salary. If a person does not take out the dividend in cash or in-kind, it is counted towards the increase of his share."

During winter 1996 the salaries were paid from a subsidized credit obtained through a Special State Fund granted by the bank SBS-Agro. Salaries to key employees, such as tractor drivers at the time of sowing and harvest are much higher than average and depend on the speed and quality of work." I pay them Rb 5 million a month for two
months. They know that if their equipment is not ready, they will not get it. So, I do not have to worry about broken or stolen parts. If anything is broken or stolen they will replace it themselves.” He believes that employment at the farm provides a good opportunity for employees with initiative to make a good living. “Those who know how to work do not have to depend on their household plot for a living. Some people know how to make up to Rb 15 million working at the farm [the average salary at the JSC it in the summer of 1997, according to Mr. Micheev, was Rb. 10 000 000 per year]. Those who do not simply do not have brains.”

Though Mr. Micheev thinks the Corporation to be a dangerous monopolist, he approves of the new Governor’s interventions into agricultural production. “The government turned again to the producers. Other enterprises need more help than I do.”

Other managers admit that Micheev is the most talented businessman of them all. They are discussing the possibility of his selling output on behalf of the other JSCs as well. As of summer 1997, these discussions had not yet been translated into actions.

“Berszovskoe” has succeeded in bypassing the oblast government’s control of grain prices. It also avoided indebtedness to the Corporation. The main reason for this unusual for the district achievement seems to be the outstanding entrepreneurial ability of Mr. Micheev. The changes did not stop there. Despite his protestations, there is a deep change in the ownership structure of the JSC. From observable facts this is the only JSC in the district that has a large concentration of shares in the hands of the manager. The
mechanism of distribution of shares guarantees that even if no other measures at concentration of resources are taken, the share of Mr. Micheev and of other top administrators is likely to grow, so, if not for the employees, the incentives for the management have been realigned.

**Pribrezhnoe**

Like "Berezovskoe", "Pribrezhnoe" is a small farm by Saratov standards. Its total landholding is approximately 5,000 hectares and remained at the same level throughout the studied period. About 200 hectares have been distributed to 30 employees who left the collective to start individual farms. Most of the land is ploughed, and about 300 hectares are allocated to pastures. The number of employees decreased between 1994 and 1997 from 234 people in 1994 to 168 in 1997. The number of tractors decreased from 33 to 24.

Grain output of "Pribrezhnoe" in 1994 was 2,274 tons, and then fell to 1,231 tons in 1995, to increase to 4,850 in 1997, a bumper crop year. The cattle herd consisted of 242 heads in 1994, decreased to 51 to increase to 228 in 1997. The cow herd, 45 head strong in 1994 and 1995, decreased to 5 cows in 1996, to increase to 100 in 1997. Productivity of the new milk heard has increased form an annual output of 1.2 tons per cow in 1994 to 3.2 in 1997. The number of hogs fluctuated from 288 in 1994, to 130 in 1995, 500 in 1996 and 200 in 1997.

In terms of financing, "Pribrezhnoe" experienced very uneven treatment throughout the years studied. In 1994 it obtained a substantial commercial credit
guaranteed by the *oblast* government, which stood at 90 per cent of COGS. In 1995 the size of credit decreased to 7 per cent of COGS. In 1996 the size of non-commercial crediting increased dramatically to 28 per cent of COGS. In 1997 non-commercial credits and subsidies constituted 15 per cent of COGS.

"*Pribrezhnoe*" was unprofitable in 1994-1996. In 1997 it broke even. Profits on agricultural production alone, excluding non-agricultural activities was positive.

"*Pribrezhnoe*" went through a change in management in 1996. In 1996 Mr. Kireev took over the management of the farm. Before taking the position he was an individual farmer. Prior to becoming an individual farmer he was an agronomist in a collective farm in another district. As a farmer he cooperated with three other farmers. The four farmers accumulated 260 hectares of land and were producing vegetables and had a hog farm with 100 hogs. Mr. Kireev participated in a farming exchange program and traveled to the US to study Western experience in individual farming.

Since Mr. Kireev's farm was adjacent to "*Pribrezhnoe*" which was left without management, district authorities invited Mr. Kireev to assume the management of "*Pribrezhnoe*." The main innovation in Mr. Kireev managerial style was to solicit the cooperation of 30 individual farmers working in the vicinity. The farmers help with equipment and contribute their time in exchange for a percentage of crops for their work and equipment. "The employees that I inherited do not know how to work, many of them stay home. In addition to 30 farmers, I hire 10 soldiers to help with harvesting." However,
Mr. Kireev cannot fire the employees that do not work. “I cannot just fire them. I have to find them new employment or pay severance in the amount of three annual salaries.”

The employees have not been paid salaries in cash for 2-3 years. They receive in-kind payments in goods. “If I give them grain, they do not know how to sell it and they will get low prices, so I sell it and give them payments in-kind in other goods, cigarettes, sugar, building materials.” There is a problem of theft at the farm. If they steal more, we raise prices (for internal sales and implicit prices in in-kind payments). “Now they steal less, they understand that the farm needs to survive in order to continue to sustain them.” Pensioners are getting support in the form of grain and hay deliveries as well.

Part of the payments is called dividends. Payment is calculated as 15 per cent of “working participation”, a Soviet accounting artifact that is calculated as output of the farm divided by the individual’s working hours, a formula that has nothing to do with ownership of land or any other property rights concepts associated with shareholding.

Mr. Kireev plans to restructure the enterprise. The specialization of the JSC was cattle fattening. All the cattle was sold to employees or stolen in 1994-1995, the time of change in management. “Now I try to get a new herd.” He expects the new oblast government to assist him in procurement of cattle and hogs. In the meantime, he has started to create a new milk herd, bartering grain for cattle with farmers. Organizational restructuring is necessary but very difficult to carry out. “We have 27 administrators and specialists. Considering that the whole workforce is less than 200 this is clearly too
much.” Yet, getting rid of redundant workers is very difficult. As quoted above, Mr. Kireev hires a cozak patrol of 10 men during harvest.

To finance the restructuring, Mr. Kireev would like to start using commercial credits, but the JSC cannot afford them. “To get a credit you have to pay a 30 per cent “otkat”, [literally a roll-back, a bribe].” “Without connections you cannot get a credit otherwise.” So, CC is the only option at this time. The state allocated a Rb 290 million CC in 1996 that consisted of fuel, fertilizer and piglets. He expects more support from the state in the future, now that the oblast government has announced that agriculture is a priority. “We are getting spare parts for our equipment from the Corporation as well. Their prices are too high, but this is the only option.” Getting subsidies is difficult, because it demands much legwork. “By the time you finish running around all the offices that are responsible for subsidies, the value of the subsidy will be eaten away by inflation, so, again, without connections, for a newcomer, this is a tough thing to do.” So, barter continues to be the main way both to sell output and to accumulate new assets. Mr. Kireev arranges barter transactions himself. “Barter takes 90 per cent of my time, it is a full time job.”

Currently, hog production is loss-making, but Mr. Kireev believes that it can be made profitable. “In the meantime I use it to influence people. They want payments in piglets.” So, barter in piglets is used not only as a means of exchange in the absence of cash, but also as a means of buying influence through the sales of a desired good at subsidized prices.
Mr. Kireev’s longer-term plan is to create an equipment repairing cooperative. Another plan is to procure a soy pressing equipment and use the by-products as feed for hogs. However, there is currently no financing available.

"Pribreznoe" is in an unusual situation and Kireev is an unusual manager. He is one of only two farmers in the district to take over a failing JSC. He is trying to turn it around, yet he has little control over his workforce and has to rely on his connections with other producers, usually neighboring farmers, to harvest. It is not just that firing redundant workers is very difficult; it is that by taking over the farm he inherited the obligation to provide the employees and local pensioners with in-kind support necessary for survival. It is not clear if restructuring under such circumstances is an achievable goal. One gets a sense that being a manager is part of a long-term strategy to accumulate better connections and, when the time is more favorable for individual farming, to go back to the farmer’s cooperative which he had left for his new position and which he describes with much enthusiasm. The long-term strategic plans also look like projects that are more appropriate for a small farm, like the one his partners are managing in his absence than for a big production unit like a JSC. The state support is important at this stage. There is also an expectation of more support to come after the manager ensures a better position in the exclusive club of the district JSC managers.
"Zavetnoe" has been unprofitable throughout the years of the study except for 1997 when it reached zero profitability.

"Zavetnoe" is one of the larger farms in the sample. Its land holdings have slightly decreased over the studied years from 14,107 hectares in 1994 to 14,059 hectares in 1997. Pastures constitute 1,180 hectares. The labor force decreased from 500 to 302. The number of tractors decreased steeply as well, from 85 in 1994 to 50 in 1997.

The main agricultural product is grain. Fluctuation in grain output is very high, even by the highly uneven grain production standards in the oblast: 4,623 tons in 1994, 849 tons in 1995, 2,872 tons in 1996, and 7,740 tons in 1997. The cattle herd has been decreasing every year of the study: 1,754 in 1994, 1,297 in 1995, 902 in 1996, and 550 in 1997. The decrease in the cow herd has followed the same pattern: 700 in 1994, 574 in 1995, 350 in 1996, and 170 in 1997. Milk output per decreased from 1994 to 1996 from 1.8 to 1.4 tons per cow and increased to 3.5 tons in 1997.

The role of subsidies and state credits decreased between 1994 and 1995, from 83 to 17 per cent of COGS, then increased to 31 per cent in 1996, to decrease to 4 per cent in 1997 (see comments in the discussion that follows). "Zavetnoe" was not using commercial credit during the studied period.
The manager of "Zavetnoe", Mr. Rodin has been working in the same collective farm all his professional life. He became manager before the beginning of the reforms. At the beginning of the meeting he was reading radiograms from the local government prescribing a timetable for the competition of harvesting. He believes the state control over production and sales to be excessive and sees no point in active restructuring.

"We are controlled by the center and we are trying to cheat on them. We are taking credits and trying not to return them. We also try not to pay into the social funds, nor do we pay taxes." Escaping the power of the state is possible, but requires a skill set that is extraordinary for the district. "The ones who know how to trade are independent, and they survive. Look at Micheev (manager of "Berezovskoe"). He casts his net all over Russia. He sells to the military, he sells abroad, he credits his buyers, but there is only one Micheev in our district."

Mr. Rodin sees the source of state control in control over prices: "The government and the Corporation have complete power over us. They are raising the energy tariffs at will. All the harvest this year (the bumper crop year) will be distributed. I have a good harvest this year, such a harvest comes once in five years. In the end, 80 per cent of it will go to pay salaries, and the Corporation, and again, I will have nothing left for next year."

"The prices are too low. Agriculture is financing other sectors. We deliver grain and they use money to play the financial market. I have to comply. If I do not, I will be fired." Mr. Rodin believes that the new Governor is supported by a powerful financial interest. He is a puppet of these structures. They put him there to better control agriculture."
Another source of control is the monopoly of the Food Corporation. “The Corporation does not allow other wholesalers into the market. They are the monopolist here.”

Mr. Rodin does not see how he can diminish his labor costs without having control over his sales. While he resists the control of the state, he regards his responsibilities to the collective and even to the village at large as natural and unavoidable. “Salaries have not been paid for 3-4 years (in cash). We passed to payments in-kind. If we recalculate it in roubles, it will be about Rb. 200 000 per month per person. We have 335 workers and 243 pensioners. What we owe them in salaries they take in services. The services amount to another Rb. 500 000 per person during harvest months. People then sell their output at the market. People with initiative actually live better.”

“30 per cent of my revenue is spent on social services. We have two schools, a kindergarten, a club, communal services. We support it together with local authorities. The JSC is ploughing plots for its members without a limit on the size. We are transporting children to school, the bus, the driver, we pay for it, not the state, not the parents.”

There is also a practical side to not being able to fire bad workers: “Those who do not work steal more. He is still a shareholder and he can claim output, yet, he is not constrained by fellow employees (in thieving).” Mr. Rodin sees theft as pervasive: “There
is a chain of theft. A tractor driver comes to me and tells me that a part is missing or out of order. I give him money to replace it. So, he goes and takes the part off another tractor, claiming he bought it. Then the next driver comes asking for a part and so on.” To combat that, an old Soviet system of *chozraschet* has been revived: the brigade gets 25 per cent of the output as payment. The brigades do not procure inputs and do not decide on the crop mix.

Mr. Rodin does not see how this burden can be made lighter: “It is impossible to get rid of the people you do not need in the countryside, they have nowhere to go. It is impossible to live in one house and not share. I am a head of an *obschina* (commune) here. Whether you are an individual farmer or a worker, you come to me. A wedding, a funeral, a farewell party for a recruit – I am financing this.”

*Shareholding* is a hollow concept, at least as far as the sense of ownership is concerned. Titles were not distributed. Yet, there is trading of land ownership certificates within the enterprise. The manager is the Chairman of the Council of Shareholders.

Whatever is left after the generous distribution of output is primarily bartered. “20 per cent of my time is spent on organizing barter transactions.” The bulk of production, especially milk, is sold to the old buyers, the former parastatals. Some of these sales continue to be prescribed by the state: “If I do not sell my milk to them, they will swamp me with inspections. Our herd is not perfectly healthy, so we do not want that.” “I have to
sell grain to particular wholesalers and they take it to the mill. I could take my grain to the mill myself.”

The state continues to grant ad hoc credits to the JSC. In 1997 according to the manager, a short-term subsidized credit of Rb 700 million was granted to the JSC by the oblast government on the basis of a special petition from the district government. (Maybe because of the special nature of the credit it does not appear in the balance sheet of the enterprise). If this credit is added to the calculation of the share of credits and subsidies to COGS, the share will increase from 4 to 30 per cent.

For all these reasons, Mr. Rodin points out, there is not much in terms of organizational change at his enterprise. “I now have a commercial director, but he is no good.” So much for structural changes!

Mr. Rodin does not believe that individual farming will succeed either. “The Russian peasant does not have a sense of ownership. He does not feel it as his. I do not feel it as mine either. The idea is that there is a barin, a landlord, he will decide for us.” His verdict on the existing system: “It is a hybrid between primitive communism and capitalism.”

The philosophical detachment of Mr. Rodin is of an extreme nature, his passive resistance to the reforms. Indeed, the JSC demonstrates decline in every indicator except for the ones that mostly depend on nature, like increase in grain crop. He continues to do
what he did before the restructuring: takes care of the village and sows and ploughs, letting the government take care of the rest. Yet, the fact that this survival strategy continues to work indicates that, in SO-ER, restructuring remains a choice to some extent, and not a necessity for JSC managers.

**General'skoe**

"General'skoe" last recorded balance sheet profitability in 1994. After 2 years of negative profitability it achieved zero profits in 1997. Moreover, if agricultural activities are taken separately it actually made a profit.

"General'skoe's" size in terms of land is average for the distinct. The land holdings remained stable between 1994 and 1997, at approximately 7,960 hectares out of which pastures are 1,190 hectares. The workforce of "General'skoe" has been decreasing at below average rate for the district, 464 in 1994, 456 in 1995, 427 in 1996 and 414 in 1997. The number of tractors declined from 80 to 60.

The JSC produces grain, meat and milk. The pattern of grain output fluctuation is the same as in other enterprises 3,945 tons in 1994, 1,873 tons in 1995, 2,884 tons in 1996, and 5,879 in 1997. The herd decreased, with the steeper decrease taking place in 1997, after an increase in 1996:793 in 1994, 789 in 1995, 869 in 1996, and 471 in 1997. The change in the number of cows followed the same pattern: 380, 356, 362, 358 heads. Milk output per cow has been increasing slightly from 1.7 tons in 1994 to 2.11 tons in
1996. In 1997, despite a steep decrease in the number of cows, milk yields per cow have decreased as well, to 2.04 ton. The number of hogs decreased by 200 from 1,200 to 1,000.

The role of state financing has been substantial but uneven. In 1994 all credits and subsidies obtained by the JSC constituted 46 per cent of COGS. In 1995 they went down to 17 per cent of COGS, only to increase in 1996 to 26 per cent and decrease again in 1997 to 8 per cent of COGS. Commercial credits were used in 1994 and 1995, but do not appear in balance sheets in later years.

The manager of “General’skoe”, Mr. Lukjanov has been with the enterprise throughout his whole professional life. He started in 1991 as a truck driver, then became a mechanic, then an engineer, then a chief engineer of the enterprise. Four years ago was been elected manager at a meeting of shareholders.

At the time of the interview in the summer of 1997, Mr. Lukjanov’s main restructuring activity had been changing the infected herd for a healthy one (having a sick herd is almost a universal problem for the SO-ER enterprises). However, he was complaining that this task was hindered by the oblast government. “The authorities are starting to dictate again what to produce. I have less freedom now. If a cow yields little milk, I have to keep it, as this keeps the head count stable. I slaughter 5 cows and the Head of District Administration calls and reprimands me.” “Dairy production with such yields is loss making. I lost Rb 120 million on my dairy farm in 1996. I can still make money on crops, though I need to hand it all in for debt repayment.”
With the instatement of the new Governor the *oblast* government has been controlling sales channels more rigidly. "The local milk processor has not paid me since 1995, yet if we do not take our milk there, they will send inspections our way. Their price of milk is laughable, 700 Rb/liter, while I can sell it at 1500 Rb/liter. We are selling illegally from 2 mobile containers, but if we are caught we are fined Rb. 3 million. We still do it; we need milk money. It is our main source of cash." Mr. Lukjanov shows a radiogram from the district officials that prescribes sales to a particular milk processor. The radiogram reads "You are obliged to provide skimmed milk to the Engels Milk Factory."

"We get these and other instructions, now that it is harvest time every day. We call it " a radio nanny" (after a popular children's radio program). If I misbehave, they will simply get rid of me."

The same with grain. "My farm has been brought to a standstill. We do not choose were to sell grain. The administration demands that we take all the grain to the same elevator."

Mr. Lukjanov feels that these policies do not allow agricultural enterprises to develop to their full potential. "We do not have any resources left for development. We cannot buy good fodder to fatten up our cattle. We have to start now. It takes 7-8 years to
built a good profitable herd of 600-700 heads. With crops it is easier, one can improve crop production significantly in 2 years.”

Relationship with the *employees* is perceived as very limiting as well. “427 people are listed as working in our enterprise. 250 actually do. We have to pay maternity leaves, and then preserve a position for the employee for a long time. People who stay home are still entitled to receive benefits from us. She can stay home to take care of the child until it is 6 years old, but she still gets our benefits, like produce at lower prices. I am Rb 200 million in arrears with salaries (about a year worth of arrears), yet, the employees owe me Rb 140 million for funerals, weddings, emergencies. We pay out salaries a little bit every day when there is money at the cashier’s, as soon as the money from milk sales is brought in.” “(In terms of relations with the employees) we are still in the same place as before the reforms: if someone is on the books, you have to provide for him.”

It is also difficult to get rid of bad specialists. “It took me a year to establish the right to appoint and confirm chief specialists to their positions. The workers simply will not let me get rid of bad specialists. They want those specialist to stay who will look the other way when they are stealing. They think of us (the managers) in the same way. Also, if I want to hire a specialist I cannot provide him with a place to live in. In my three years as a manager I managed to build one house for one family only.” In this case the employees are exercising their right as shareholders to influence the decisions about hiring of specialists but the incentive appears to be the preservation of their on work place, not the increased profitability of the enterprise they now own.
The most significant change in organization has been hiring guards from the city to patrol the harvest. Three people have been assigned to work as salespeople in milk retailing.

Shareholding is perceived by the employees as a means of making the management continue to provide inputs for private production, not as an incentive for increased interest in the profitability of the enterprise. There is no internal sale of shares, there is no concentration of shares in the hands of particular individuals.

In terms of financing, the main source is the Corporation, "I also try to barter where I can. For example, a milk processor paid me with bricks. At that time I needed logs, so I exchanged bricks for logs. Our ability to search for external financing has been ruined by our kartoteka status. We have to go through Pokrovskii bank, though this bank went bankrupt 2 years ago and froze our accounts. We do not trust it any more. We are in a viscous circle and the government makes it more difficult for us to get out of it. We are not allowed to keep more than Rb 3 million in cash at the farm in one time. We were fined for not taking our cash to the bank."

Mr. Lukjanov cooperates with one farmer, a former employee who helps him with harvesting.
Mr. Lukjanov feels controlled by the oblast government beyond the post-socialist government mandate. True, the state should be able to disallow the sales of infected milk. But then, why not ban it? If the nature of the problem is such that processing eliminates infection, why allow sales to any processor? Nor are restrictions in selling grain easily explained by legitimate health considerations.

Mr. Lukjanov appears to be much more pro-active than his "Zavetnoe" counterpart. He tried to start processing at his farm; he is actively substituting the unhealthy heard for a healthy one. Yet, success has been very limited. Milk output is increasing slowly; the processing line is not fully operational because of the lack of packaging capacity. And the problem with uncooperative redundant workforce has not even started to be resolved. The manager does not feel that he has the ability to sanction bad workers, as their interpretation of ownership is seen by the manager as a license to appropriate more of the farm resources for individual use.

From Mr. Lukjanov's description, it appears that the state in SO-ER is perceived as controlling both of the channels of inputs and of the channels of output. The control leads to lower than market prices of output and the inability to choose partners that are better for the enterprise from the point of view of the JSC management.

Okt'abr'skoe

"Okt'abr'skoe" is the only one among the surveyed farms in SO-ER that specializes in the production of vegetables. Throughout the studied years it demonstrated consistent

Grain output has fluctuated from 414 tons in 1995 to 1,653 tons in 1997. Surprisingly, fluctuations in the production of vegetables were as wide: 653 tons in 1995, 2350 tons in 1997. The herd has been consistently decreasing, from 437 heads in 1994 to 298 heads in 1997. The cow herd decreased from 149 heads in 1994 to 80 heads in 1997. The productivity of the herd decreased from 1994 to 1996 from 2.07 tons per cow in 1994 to 1.55 tons per cow in 1996, but increased to 2.3 tons per cow in 1997.

External financing of the JSC has been important and fairly stable in terms of its share of COGS: 17 per cent in 1994, 16 per cent in 1995, 12 per cent in 1996, and 15 per cent in 1997. The share of commercial credits was high in 1994, constituting about 15 per cent of COGS but steeply decreased to less than 1 per cent in 1995 and 1996, disappearing in 1997.

“Okt’abr’skoe” was created as a vegetable sovkhoz in 1979 under a special decision of the Federal Ministry of Agriculture. Mr. Trofimov has been appointed its first director. There was a break in his career as a manager of “Okt’abr’skoe”. In 1991 the employees of the newly formed JSC – the legally restructured sovkhoz “Okt’abr’skoe” elected
another manager. “There was no credit, no new equipment, there was all this talk about individual farming without much financial support, total idiocy. The people thought that I was the source of all evil.” Mr. Trofimov obtained a credit of Rb. 7.5 million with which he bought a tractor, a truck and seeds and became an individual farmer. Two other specialists from the village, a school director and an engineer, joined him. They pulled together their land allotments, used old contacts to lease more land and started a joint agricultural production. The size of the joint farm was 300 hectares. Trofimov started his own small herd (4 cows, 2 bulls 4 pigs, 30 piglets). Then, in 1996, employees of “Okt'abr'skoe”, disenchanted with the new managers asked him to come back and take over the farm again. Mr. Trofimov says he would have stayed in private farming if he were not asked back, though he admits that it is very difficult to make a living in individual farming. “If they had not elected me again, I would have stayed a farmer, but this JSC is my creation.”

Mr. Trofimov started to restructure. He has started 2 mini-processors, hull milling and an oil press. In addition to their own output, the mill mills buckwheat for individual farmers, a service for which the JSC charges a 30 per cent commission. Together with retail sales of milk and sour cream, these are the sources of (untaxed) cash for the JSC. One person has been added to the previously existing sales department. Mr. Trofimov hires 5 guards for the summer. There are patrols of the fields by the employees as well.

Mr. Trofimov also increased the tractor fleet depleted by his predecessor. He leased 3 tractors from a state leasing company. He is paying for the tractors in-kind with
vegetables. The reason for using the leasing arrangement is the *kartoteka* filing.

“Otherwise it is more profitable to sell and pay than to barter.”

Because of the *kartoteka* filing, which means that bank accounts cannot be used without the repayment of debt, there is a limit of Rb 1 million per day on the amount of cash that can be kept on the farm.

*Financing* of both production and some of restructuring is both internal and external, and, from what it sounds, continues in the tradition of being a subsidy rather than a credit. Externally, “*Okt’abr’skoe*” has accumulated a big debt to the state even by SO-ER standards, but the manager feels the constrains of repaying to be extremely soft. “We have a debt of Rb 5,700 million. The majority of it is fines. I have no intention of repaying, nor am I capable of repaying it even if I intended to. In five years it will all be written off in any event.” In the summer of 1997 Oktabr’skoe was in arrears to the Corporation for two years, which amounted to Rb 968 million. Mr. Trofimov is not sure if he will have to pay this year or not (data collected at the end of 1997 indicated he did). Credit from the Corporation was sufficient to cover 50 per cent of fuel costs. There is also access to credits and subsidies directly from the *oblast* government. “There is a person in Saratov who is lobbying Ayackov for us.” This contact helps with *oblast* allocations of subsidized equipment and herbicides. For example, in 1997 Mr. Trofimov received a subsidized credit of Rb 105 million, guaranteed by the *oblast* budget.
The changes in the interactions between the employees and the manager are not evident either. “We are Rb 370 million in arrears on wage payments. We give advances of Rb 50,000 to 100,000 from the “live cash” that we get from milk sales and processing. We also provide services in ploughing and fertilizing of private plots. We were giving out calves, sows and hogs last year. If people need buckwheat or sugar these are given out as in-kind payments.” There are a large number of other recipients of the JSC’s services in the village. “We provide pensioners in the village with forage, even those who are not shareholders. Say, they are parents of our employees, they are not shareholders, we still provide them with forage.”

Even with all this largesse reminiscent of old times, the worker’s attitude to the work at the farm is lax. “Our people do not work very hard. At harvest time I have to hire 100-150 people per day to harvest vegetables. The system of chozraschet has been reintroduced in the JSC. The brigades are getting a percentage of harvest for their work as payments.

Titles for land were not distributed to shareholders. The JSC is a specialized vegetable enterprise and it is governed by a special decree that does not allow partition of land of specialized and irrigated agricultural enterprises. The property shares are not traded or revalued. Movement of shares happens only through inheritance. “People do not feel themselves to be owners.”
Mr. Trofimov acknowledges that his attitude to the JSC would have been different had he owned it. “If I owned this land, things would have been much better. I would have established order.”

Mr. Trofimov sees that the new Governor is more involved in the government control of agriculture and believes it to be a good thing. “Market was too chaotic for the JSCs. The new Governor started to give credits and distribute technology again. The harvesting campaign is going smoothly, these are all good things.” Mr. Trofimov does not experience the negative sides of government controls to the extent other managers do because the profile of the JSC is unique for the district. Exports of vegetables outside of the oblast are not controlled. The demand for the vegetable output is high, so bartering vegetables does not present a problem. The grain is sold to a wholesaler with whom contacts were established several years ago. Oktabr’skoe avoided paying the Corporation for two years, so in the summer of 1997 Mr. Trofimov was not yet sure how serious the resolve of the Food Corporation to collect on accumulated debts was.

With the retailing of milk and processing for cash, a mix that guarantees survival, Mr. Trofimov says that, as of summer 1997, his enterprise was actually profitable and that current costs constituted only 70 per cent of revenue. Since balance sheets for 1997 still demonstrate non-profitability, one wonders at the accuracy of the reports submitted by the JSC. The reason for the discrepancy may also be that the listed losses from the slaughter of cattle are higher than the ones imputed by the manager. It is important to note that
other managers' accounts of the performance of their enterprises has been consistent with the balance sheet's reflection of their performance.

The majority of the transactions of the enterprise are in barter. Admittedly, all the time of the manager is spent on arranging barter deals.

It appears that "Okt'abrskoe" gets many of the benefits of the new regime without much of the costs. The manager continues to use his contacts to avail himself of cheap credits despite years of non-payment on previous obligations. Yet, the tightening of the government control over prices and sales channels experienced by other JSCs did not affect "Okt'abrskoe" because of its crop mix and, possibly, because of a traditionally unique legal status granted to irrigated collective agricultural units.

Interactions with the employees demonstrate that the employees interpret their ownership status as a means of having more control in obtaining inputs and other payments from the enterprise rather than an incentive to contribute more to the viability of the enterprise. Considering lack of constraints in terms of crediting that was evident in the summer of 1997, one could see the rationality of this position. This level of non-wage support extended to the employees of the JSC, its pensioners and to other villagers can only be sustained with substantial direct and indirect state support.
Leninskoe

“Leninskoe” is primarily a grain and a dairy producer that has been consistently non-profitable throughout the years of the study.

The number of employees decreased from 394 in 1994 to 314 in 1997. Total land holdings of the farm actually increased from approximately 9,600 hectares in 1994 to 9,800 hectares in 1997. The increase could be associated with the fact that many Volga Germans who lived in the village left the country and, unable to sell land, returned their land allotments to the collective. The size of arable land actually decreased, from 6,680 in 1994 to 6291 in 1997. The size of meadows has not changed and remained slightly above 600 hectares throughout the studied period. The number of tractors decreased from 70 to 47 in 1996 to increase again to 50 in 1997.

Grain output of “Leninskoe” was the lowest in 1995, 2,270 tons, and the highest in 1997, 5,093 tons. The size of the herd in 1997 is 10 times smaller than it was in 1994, declining from 1086 heads to 108. The number of cows decreased from 403 to 74. Milk yields per cow were the lowest in 1995 - 2.1 tons per cow, and increased to 3.6 tons in 1997. The number of hogs fluctuated from 1156 in 1994 to 371 in 1995, and 706 in 1997.

The pattern of credit allocation is typical for the district as well. In 1994 the size of credits constituted 118 per cent of COGS. The main credit allocated that year was a commercial credit. After the enterprise experienced difficulties with repayment, the JSC did not use commercial crediting, and in 1995 external financing consisted of subsidies
and non-commercial credits from the local government. The role of these credits as a share of COGS was fairly marginal, at about 3 per cent. With the new oblast administration the role of state support has increased again, to 26 per cent of COGS in 1996 and 16 per cent in 1997. Considering that production of grain and associated costs increased significantly in 1997, the level of state financing remained largely the same.

Mr. Petlin has been working in “Leninskoe” for 20 years, first as an agronomist and then as a manager. There is not much activity in the farm that can be termed restructuring. Rather, it is the downsizing of the herd, slaughtering the non-productive and sick animals. “It is good we started before this (oblast) administration (took over). Now they are trying to control that (the herd size).” Organizationally, since milk is primarily retailed, some of the employees double as salespeople. Cossack patrols are hired in summer to patrol the fields.

Mr. Petlin sees government controls as tightening, but he welcomes them since “maybe there will be order again.” One aspect of controls appears constraining: “It took me 1.5 months to get a leasing document to sell my own milk.” All the major purchases of cattle, equipment and of new production lines has been made through the government-owned Food Corporation. In 1996 “Leninskoe” purchased two tractors through the Corporation, and in 1997 1 tractor. These were barter arrangements with payments made in grain. “We have to pay 143 million for it through the Corporation. At the factory in Volgograd we could get it for 112 million. We will have to pay 230 tons of grain for one tractor.”
The oil pressing equipment has been procured in a leasing arrangement through the Corporation as well. The oblast Department of Agriculture assisted with the purchase of a new healthy herd. All fuel used by "Leninskoe" has been purchased through the Corporation. "There is no point in trying to find other wholesalers. No one raises prices above the Corporation's."

There is no effort at technological innovation. The enterprise is using its own seeds as seed material and is not trying to purchase more productive seeds. The quality of grain is low and this is another reason why going through the Corporation appears to be the only way, since the Corporation accepts forage quality grain. The manager tried to substitute the sick herd with a healthy one. Now that the license had been obtained, "Leninskoe" can sell milk officially, which means better prices, but no new channels for milk sales seem to have been created.

Relationship with the employees is characteristically based on provision of services that appear to be beyond the means of the enterprise. These services typically include ploughing of land for individual production and deliveries of hay and fodder at harvesting. Yet, the work of the employees does not appear satisfactory to Mr. Petlin. "They are not getting cash payments, so I cannot demand good work. The backbone of my workforce, the Germans have left. I cannot hire new good specialists as I cannot provide them with a place to live." There are 35 specialists and members of administration at the farm, but firing the redundant is difficult. "We are all from the same
village.” Firing in general does not seem to be an acceptable measure, though the cut in the workforce appears to Mr. Petlin as long overdue. “150 people would have been enough (currently 250 work), but they live here. Even if I fire them they will be at the farm. For example, I fire them using article 33 of the Labor Code for drinking. I will have to hire them back after a while anyhow, others will keep feeding them with the produce produced at the farm.”

Pensioners are also getting in-kind deliveries of hay and fodder. However, unlike other enterprises, the explanation has none of the sentimentality of the traditional patriarchal role of the manager: “I have to pay pensioners because they represent the majority of voices at the shareholder’s meeting.” According to Mr. Petlin, out of 950 shareholders, 250 are working at the JSC. “The number of shareholding pensioners is 450, so there it is.”

“Leninskoe” cooperates with a farmer who restored an old corn dryer that was at the farm and is getting ready to produce corn. “We are leasing a cornfield to him. He has his own connections through which he financed the repairs of equipment. He used good seeds, his corn is much better than ours. He already has sales contracts. The farm will get 15 per cent of revenue from the farmer’s payments.

It appears that the enterprise “Leninskoe” is living up (or down) to its name. Restructuring looks more like a fairly passive adaptation to the new reality. The government is providing much of the resources, inputs, and the sales channels. The

241

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employees feel no incentive to produce more effectively, but interpret their new rights as a right to continue to receive in-kind payments from the enterprise. A pro-reform development is the leasing of cornfields and corn dryer to the farmer who expects to be much more productive and profitable that the JSC he is leasing the land from: "In a year I will be feeding all these losers."

Mr. Petlin welcomes the return of control at the oblast level as it shields the enterprise from change and responsibility.

**Conclusions to SO-ER Case Studies**

On the basis of the presented case studies, here are some conclusions on the changes in key economic, social, and political interactions within the JSCs and between the JSC and its key outside political and economic associates. We will also examine what cumulative effect these interactions had on the pattern of restructuring in SO-ER.

- Relationships with the employees are predominantly traditionally post-Soviet and patriarchal. Five out of six managers reported that it is virtually impossible to fire an employee. Despite a long-term balance sheet non-profitability of all but one enterprise, its employees and pensioners are reported to receive an expanded array of agricultural services which in five out of six JSCs is not counted toward wage payments. All six enterprises continue to fulfill a number of social and social security functions, acting as a de facto local administration. Managers of three JSCs admit to providing services to the
villagers at large or to pensioners even if they are not shareholders and cannot claim these payments as payment for the use of their shares. In three JSCs managers reported preserving unprofitable livestock production so that they can use meat as a desirable form of in-kind payments, demonstrating that provision of services to the employees comes before profitability. Provision of social and agricultural services is egalitarian and does not serve as an incentive for the employees to improve their performance. Five out of six managers report lack of interest among the employees in the profitability of the JSC. The most successful JSC in the district reports that incentive structure at the JSC is such that the employees are more interested in their work at the farm than in their individual household production.

- The employees interpret their shareholding rights as a mechanism to force management to provide services regardless of the profitability of the enterprise. Four out of six JSC managers report that employees use their power as shareholders to extract payments. Six JSCs report that the employees indirectly control hiring practices of the specialists and of personnel. All six managers report that the employees are not developing a sense of ownership of the JSC. There is no active trading of shares at the enterprises. At one JSC significant concentration of shares in the hands of the manager was reported. In other JSCs the managers were not reporting significant shareholding in their enterprises.

- Relationships with the suppliers and buyers have not been innovative either. CC were the main source of external financing for five of six JSCs. The supply of the
majority of inputs is organized by the Food Corporation. There are new barter partners reported by the enterprises, but in four out of six enterprises these are ad hoc sales that have not developed into strong partnerships. One enterprise has succeeded in establishing lasting direct contacts with the buyers outside of the oblast. The other enterprise with consistent sales contracts, independent of the Food Corporation, is a vegetable producer, a crop that is rare for the JSC production in the district and which is not controlled by the Corporation.

- Relationship with the state is based on increased state interventions into the operations of the JSCs. While interpretation of state controls as positive or negative varies, all the enterprise managers report that state involvement has increased. Enterprise managers have registered state involvement in two areas: first, control over the prices and channels of sales for grain and, second, control over prices and channels of sales for milk. 

While comparing grain policies in the two districts is difficult due to a different scale of grain production, comparison of milk policies clearly demonstrates a greater effort control agriculture in SO-ER, where the oblast government prescribes which processors the output should be sold to and tries to control the pace of slaughter of the herd, even making an enterprise maintain low yielding cows.

- There are no reports of cooperation between collective farms in SO-ER. It may partly be explained by the controlling role of the oblast government which fulfills the coordination functions mandating mutual help with equipment at the time of sowing and “liberating” the JSCs from the need to cooperate. Almost all the managers cooperate
with neighboring farmers in harvesting and sowing, an easier cooperation, since these are usually owners of adjacent farms and former employees.

- **Organizational** changes are very limited as well. Special marketing departments have been created in only one enterprise. Some employees double as sales people for the retailing of milk in other enterprises and outside guards have been hired to guard crops. There are no other organizational changes reported by the managers.

- **Restructuring** is more a choice than a necessity. While one enterprise succeeded in restructuring its sales channels, the pattern of share distribution and incentives to produce, others are using the old channels or sell the larger portion of their output to the state. Major new lines of production have not been added in any of the reviewed enterprises. Two JSCs are trying to rebuild a depleted herd and two enterprises added small scale processing, a less impressive result than in LO-VR. Two managers are not trying innovative restructuring strategies at all because they believe that the state is controlling the market, which one manager believes to be a positive development and the other sees as negative.

- The managers, both the old ones and those only recently brought in to the enterprises, report being constrained in their restructuring initiatives on two fronts. On the one hand the *oblast* government’s policies, while guaranteeing survival of the enterprise, restrict free pricing and searching for new markets. On the other hand, employees expect provisions from the JSCs and watch over the JSC manager to make sure that such
payments continue despite their effect on the profitability of the enterprise. Lack of change in one type of interactions feeds into the preservation of the other.

Conclusions to Chapter 5A: Patterns of Restructuring in the Two Districts

Table 21 summarizes the differences in trends in interactions with employees, suppliers, buyers, and the state as observed in the two districts.
Table 21: Patterns of Restructuring in the Two Districts, 1997

<table>
<thead>
<tr>
<th>Relations with Employees/Shareholders:</th>
<th>SO-ER</th>
<th>LO-VR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary payments</td>
<td>ovision of traditional agricultural and social services</td>
<td>Primarily contractual</td>
</tr>
<tr>
<td>Shareholding</td>
<td>In-Kind Compensations</td>
<td>Provision of a limited number of agricultural services</td>
</tr>
<tr>
<td>Redundancies</td>
<td>Control over provision of services</td>
<td>Cash payments</td>
</tr>
<tr>
<td></td>
<td>Lack of interest in the profitability of the JSC</td>
<td>Lack of pressure of management to maintain provision of services if JSC is unprofitable</td>
</tr>
<tr>
<td></td>
<td>Laying off workers viewed as impossible</td>
<td>In some cases interest in the profitability of the JSC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Laying off workers is socially difficult but is necessary and will be carried out in the immediate future</td>
</tr>
</tbody>
</table>

| Relations with suppliers/buyers      | Primarily traditional channels | Multiple new partners, sometimes international |
|                                     | Ad hoc barter contracts | Provision of inputs through Food Corporation limited primarily to needs in fuel |
|                                     | Provision of inputs and sale of output through the Food Corporation | |

| Relations with the state             | Increased control over dairy and grain production | Decreasing role of the state, which includes: |
|                                     | Grain: control of input supplies and sales channels | Ad hoc subsidization |
|                                     | Milk: control of the size of the herd, sales channels of milk, sometimes milk prices | Assistance in legal changes of the use of land |
|                                     |                                                 | Assistance with search of international partners |

| Restructuring                        | Marginal changes, no deep restructuring of lines of production | Deep restructuring of lines of production |
|                                     | Addition of small scale processing | Addition of processing |

As Table 21 demonstrates, interviews with the managers reveal differences in the depth and direction of changes at the JSC level.

In SO-ER relations with the employees continue along the traditional lines of provision of a fused bundle of economic and social services. Employees use shareholding only as a means of reinforcing these traditional patterns. In LO-ER relations are moving in the direction of separating financial compensation from social service provision. Shareholders are not trying to hold management hostage to their new legal powers. The reason for this may be the realization that the management is not capable of providing such services in the new environment.

Relations with the suppliers and buyers also diverge between districts. In SO-ER channels of provision of inputs and outputs are largely state controlled. In LO-VR provision of inputs and sales of outputs is based on individual contracts with input providers and buyers. Commodity credits still exist in LO-VR, but their role is marginal. Managers of SO-ER JSCs underscore the power of the state over the production of the JSC and its output. Managers of LO-VR consistently rate the role of the state as insignificant.

Relations with the state are based on rigid top-down controls in SO-ER. The JSC managers report on state controls of the sales channels and input provisions. With grain, this control is ensured by provision of Commodity Credits and the use of the oblast government discretion in demanding debt repayment. With milk the control is command-
based, as compliance is ensured by the threat of firing of the management and the threat of inspections. In LO-VR the managers consistently report that the role of the state as a source of financing is decreasing and that neither local nor provincial authorities interfere with the managerial decisions at the JSCs.

Restructuring in SO-ER does not go beyond the occasional addition of small-scale processing. The only consistent change present in all enterprises is the addition of small-scale retailing of milk. Two of the LO-VR enterprises made an effort to change the profiles of their JSCs completely, two added significant processing capacities. All organized extensive retail networks to market and sell their output.

Analyzing these differences in the restructuring patterns, it is important to ascertain if the type of interaction with the state is crop-specific. Does the fact that one region primarily produces grain and another vegetables influence the observed patterns?

One can argue that grain production lends itself more easily to state controls, as grain is a wholesale commodity, which, unlike vegetables, cannot be retailed easily. We are suggesting in this study that such a logic would reverse the causality. Private grain sales are widely practiced and are a rule rather than an exception in international and, particularly, national markets. The history of grain distribution in the Saratov oblast knew nothing of the market. Grain administrators in SO were important and powerful grain distributors in the Soviet times and retained these positions in post-Soviet times. The fact that administration was experienced in grain management allowed it to reinstate

249
centralized distribution of inputs and centralized grain sales with relative ease. There is nothing deterministic about state controls over grain, yet there may be a commodity-specific ease of control that may need to be explored further with a larger sample of oblasts.

At the same time, the SO administration is reintroducing controls over milk and livestock production as well. Dairy and livestock specialization are identical in the two districts, yet, in the more interventionist district controls over milk production are much tighter than in the more laissez-faire oblast. This shows that controls are not primarily commodity specific, but are a function of the oblast-level agricultural policy as a whole.

In Chapter 5B we will test if the qualitative assessment of restructuring presented above helps interpret the balance sheet data of the JSCs. In analyzing balance sheet data we will try to see if they demonstrate a difference in behavior of the enterprises in terms of the hardness or softness of budget constraint.

Chapter 5b: Restructuring of the JSC: Balance Sheet Ratios

It is safe to say that up to the end of 1997, the last year for which data is available, almost no JSC in Russia was facing a hard budget constraint in an absolute sense, which includes a credible threat of bankruptcy from any creditor regardless of his institutional affiliation or the nature of debt. In the context of the elastic post-socialist political/economic interactions, some creditors are more equal than others, and some constraints are more binding than others. In this section, our goal is to capture the
difference in the elasticity of constraints imposed by the state on the JSCs in the LO-VR and in the SO-ER. Since federal policies are the same for both oblasts, it is assumed that the difference in the economic regime faced by the enterprises reflects the oblast's modifications of these policies.

To compare these oblast-level modifications, the current part of balance sheets of the JSCs in the two districts will be reviewed to establish if the means of financing production reflect the difference in policies between the oblasts and whether the behavior of collective enterprises has changed to fit these different constraints.

According to the analysis presented in the previous section, the balance sheet data is expected to indicate that the enterprises in LO-VR (the more laissez-faire oblast) receive less and diminishing financing from the state than SO-ER enterprises (the more interventionist oblast) and that the cost of production is more constrained by limited sources of financing. The SO-ER enterprises are expected to be subject to "elastic" state financing, with the flow of funds decreasing or increasing according to the political imperatives of the oblast administration. In short, the LO-VR enterprises are expected to operate more within their means because the state is getting disengaged from agricultural financing and the managers have to operate increasingly within the market driven sets of parameters, including decreasing reliance on soft state credits.
Changes in profitability presented in table 18 are not driven by changes in sales for all the years except for 1997 for the SO-ER. Chart 6 presents an index of sales from 1994 to 1997 deflated by the consumer price index:

![Chart 6: Real Sales Index](chart)


Chart 6 demonstrates that sales in the SO-ER increased only in 1997, a bumper crop year. Chart 7 demonstrates the difference in the rate of increase in variable costs deflated by the consumer price index. The variable costs used in these calculations are the sum of the cost of fuel, fodder, seed, fertilized, gas, and electricity.\(^7\)

\(^7\) Inputs used to approximate variable costs exclude labor costs for two reasons. First, the permanent nature of labor arrangements in the JSCs puts labor costs in the category of fixed rather than variable costs. Second, the complicated system of payments makes balance sheet information a poor approximation of true labor costs.
As is evident from Chart 7 real variable costs increased at a faster pace in SO-ER already in 1995 and 1996, years of a slight decrease in sales.

Table 22 presents the ratios of costs of production to sales. On average, the enterprises in SO-ER are not capable of covering their increasing variable costs with revenue. Even in the bumper crop year of 1997, with a 45 per cent increase in sales, ER enterprises did not generate sufficient revenue to cover the incompletely defined variable costs (second line from the top in Table 22). If the total expenditure of the enterprises is included in the calculation, the expenditure of the JSCs in SO-ER exceeded sales two to three times (see first line in Table 22):
Table 22: Ratio of Cost of Production to Sales, 1994-1997

<table>
<thead>
<tr>
<th>Expenditure to Sales</th>
<th>Vsevolozhsk Raion Leningrad Oblast</th>
<th></th>
<th></th>
<th></th>
<th>Engelskii Raion Saratov Oblast</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total costs to sales</td>
<td>0.98 1.01 1.36 1.31</td>
<td>2.07 2.21 3.29 2.56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable costs to sales (fuel, fertilizer, seed, fodder, gas electricity)</td>
<td>0.51 0.55 0.66 0.65</td>
<td>0.93 1.20 1.69 1.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel to sales</td>
<td>0.03 0.03 0.04 0.03</td>
<td>0.16 0.32 0.35 0.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seed to sales</td>
<td>0.05 0.06 0.11 0.12</td>
<td>0.11 0.09 0.27 0.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fodder to sales</td>
<td>0.32 0.35 0.39 0.37</td>
<td>0.45 0.59 0.78 0.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Financial statements of the collective producers filed with the Departments of Agriculture of the Vsevolozhsk and the Engels Raions, winter 1999.

In LO-VR, the situation is less dramatic; enterprises use half of their sales to cover their variable costs, with this ratio increasing to 1.3 if all of their expenditures are taken into account (first line in Table 22). Even including depreciation in total expenditure, an item, which, for reasons described below, may be overstating the average size of expenditure, these numbers are nowhere near sustainability in SO-ER and indicate a need for deep restructuring in LO-VR.

How reliable are the data obtained from income statements? Interviewed accountants of the JSCs in LO-VR as well as independent accountants who had experience working for the JSCs revealed that various tax evasion techniques result in a 10 per cent overstatement of cost and in a 10 per cent understatement of sales revenue.
The SO-ER managers admitted to no such distortions, claiming that strict controls introduced by the new governor over the harvest precluded any such irregularities.

If LO-VR version of events is accepted as a better reflection of reality an if it is assumed that techniques of tax evasion are similar in both districts, after the relevant adjustments for both districts, LO-VR average expenditure appears sustainable, i.e. the sales of the enterprises cover the necessary variable costs and allow for fixed cost expenditure, while SO-ER expenditure appears unsustainably high: the enterprises would need to “spend” almost all of their sales revenue covering variable costs with no resources left either for wage payments or for investment.

Table 23: Adjusted Expenditure to Sales, by Category, 1994-1997

<table>
<thead>
<tr>
<th>Year</th>
<th>Vsevolozhsk Raion Leningrad Oblast</th>
<th>Engelskii Raion Saratov Oblast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable costs (fuel, fertilizer, seed, fodder, gas electricity)</td>
<td>0.42 0.45 0.46 0.54</td>
<td>0.77 0.99 1.39 0.83</td>
</tr>
</tbody>
</table>


The continuous operation of enterprises with such a high expenditure to sales ratio can be explained only if some of the expenditure is financed externally and/or if a large portion of the financing does not have to be repaid. As the next step sources of financing
of production in the two districts will be examined to assess if one appears consistently "softer" than the other.

**Current Assets, Current Liabilities and Who Ultimately Pays**

In Russian agricultural reporting, the current part of the balance sheet is a fairly reliable source of information about the enterprise: liabilities to the state (to budget and the social fund) are already known to the state, so enterprises have no incentive to distort them. The same logic (pointed out by Russian collective farm accountants) applies to their liabilities to suppliers; distorting the records of debt to suppliers would mean complex coordination with suppliers and buyers.

In both *raions*, Table 24 presents a picture of increased indebtedness, but in SO-ER enterprises accumulated debt at a higher rate than the enterprises in LO-VR. In LO-VR between 1994 and 1997, current liabilities and obligations that contractually need to be repaid in a year or less, grew from one third of total sales to the amount that equals the value of total sales for the year; in SO-ER the ratio was already above unity in 1994 and increased to 3.59 in 1996 to fall one point in 1997, primarily due to a very good harvest and an increase in sales (see Table 18, line 1).
Table 24: Current Liabilities to Sales, by Type of Liability  
1994-1997

<table>
<thead>
<tr>
<th>Year</th>
<th>Vsevolozhsk Raion Leningrad Oblast</th>
<th>Engels Raion Saratov Oblast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current liabilities/sales</td>
<td>0.35 0.45 0.95 1.09</td>
<td>1.09 1.17 3.59 2.47</td>
</tr>
<tr>
<td>Short-term non-bank credits/sales</td>
<td>0.15 0.13 0.24 0.12</td>
<td>0.09 0.36 1.33 0.54</td>
</tr>
<tr>
<td>Short-term bank credits/sales</td>
<td>0.05 0.03 0.03 0.01</td>
<td>0.43 0.02 0.06 0.05</td>
</tr>
<tr>
<td>Accounts payable/sales</td>
<td>0.22 0.35 0.78 0.97</td>
<td>0.57 0.79 2.20 1.91</td>
</tr>
</tbody>
</table>


The level of indebtedness is higher in SO-ER than in LO-VR. A sharp fall in bank credits to sales ratio (line 3 in Table 24) in 1994 in SO-ER was a result of a write-off of centralized credits, carried out by the national government and, therefore, not relevant to a discussion of differences in regional policies. The fall in indebtedness in SO-ER in 1997 was driven by two factors. The first of these was the effect of the bumper grain crop mentioned before. The second was the policy of forcing the repayment of some of the credits granted by a preferred creditor and will be examined here in more detail.

Apart from the difference in the overall level of indebtedness, the most distinct difference in the shares of liabilities to sales by creditor in the two districts is the year-to-year rate of change of non-bank credits. In LO-VR, this category (2nd line in Table 24) fluctuates between 15 and 24 per cent of sales, while in SO-ER, current liabilities

257

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increased fourfold in 1996 and then decreased threefold in 1997. Part of the decrease in liabilities was driven by an exceptionally good grain harvest in 1997, which led to a 45 per cent increase in sales.

What does the 1996 SO-ER increase in the short-term non-bank credit actually mean? Why was it followed by a sharp decrease in short-term non-bank liabilities in 1997? The available data do not have a more detailed break-down of non-bank credits, but, according to the accountants of the JSCs, by far the greatest share of the non-bank credits were CCs. The steep increase in CCs in SO-ER coincided with the election of the new Governor and with the shift in the oblast-level agricultural policy back to hands-on participation. The repayment of credit is an expected effect of the enforced repayment campaign conducted by SO government and described in the previous section.

That sporadically enforced repayment coincides with increased state financing demonstrates an elastic budget constrain in action. In period 1, the state supplies inputs and credits in a "soft" manner, with the enterprise accumulating debt to the creditor state. In period 2, guided by a political and economic imperatives exogenous to agriculture, the government may chose to enforce the repayment of input credits. This enforcement, however, does not signal a change in paradigm, since the government does not stop supplying inputs to producers. Since the budget constraint is not changed, the ratio of costs to sales does not decrease (see chart 7), and the repayment of credits to the Corporation is compensated by the non-payment to other creditors and even by non-payment of other liabilities, expressed by the accounts payable to sales ratio.
As was discussed in Chapter 5A, the involvement of the state is sometimes welcome by SO-ER managers, often resented but not challenged. As has been shown, there is an unofficial hierarchy of the "softness" of incurred debts. The SO-ER managers consider arrears to the social funds and to the budget to be their least important priorities. In 1997, six managers in SO-ER admitted not having paid either of these agencies for more than two years! They justified this position by the fact that they provide social services to their employees and the whole village anyhow so paying to social funds would mean double paying.

Another debt that is low on the managers’ priority list is debt to the energy sector. The managers feel that if they have a good working relationship with the Corporation, then other creditors cannot touch them. In other words, subsidization by other sectors continues. In SO-ER in 1997, only one out of 12 agricultural producers, the only profitable one, decreased its liabilities to suppliers, despite a bumper grain crop and an increase in sales, while in LO-VR, five out of 10 JSCs (50 per cent of the total) decreased their liabilities to suppliers.

Some of the organizational changes described in Chapter 5a are captured by the aggregate district-level data on the profile of the new workers of the JSCs. Despite the overall decrease in the number of permanent workers, one category of employees has grown in LO-VR as opposed to SO-ER. These are workers in the category “salespeople and canteen workers.” Since the number of canteen workers has not grown in the four
years of the study, all the increase is due to an increase in sales and marketing staff. In SO-ER, four enterprises do not have a single person designated to deal exclusively with sales, while in LO-VR, all enterprises have employees who are assigned exclusively to the sales departments.

Table 25: Change in the Number of Employees Working in the Canteen and in Sales in 1994-1997

<table>
<thead>
<tr>
<th>Year</th>
<th>Vsevolozhsk Raion Leningrad Oblast</th>
<th>Engels Raion Saratov Oblast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees working in the canteen and in sales</td>
<td>6.3  7.7  8.3  10.3</td>
<td>4.75  3.6  3.9  4.0</td>
</tr>
</tbody>
</table>


The numbers presented in Table 25 do not include the increase in employees with higher education involved in marketing who are accounted for under the category "specialists." As was presented in the JSC level case studies in Chapter 5a, in LO-VR, all managers admitted to hiring new full-time employees to deal with sales and marketing or to re-deploying existing employees in marketing. The SO-ER managers claimed that they were still carrying out the majority of marketing themselves since the enterprise dealt mostly with the government. This difference is not just a result of a different crop mix in the two raions. Selling of grain to new private clients in the SO-ER is reported to be rare, while managers and commercial representatives of the JSCs in the LO-VR report a high share of new clients both among wholesalers and retailers.
How does this change in managerial strategies affect the interactions between the employees/shareholders and the JSCs? In the chapter that follows the benefits that the employees of LO-ER derive from their interaction with the collective enterprise will be compared to the benefits derived from this interaction by the employees in SO-ER.
Chapter 6: Reforms and the People

Chapter 5 described the kinds of compensations the managers see the collective enterprise as providing to their employees/shareholders. Here the employees' own assessment of benefits derived from the association with the collective enterprise as well as their estimates of material value of these benefits are presented.

Officially, salaries continue to be the main form of compensation in the JSCs in both districts. While reported wages in LO-VR appear sufficient to fulfill this role, the rationale of the SO-ER employees for staying with the collective is obscured rather than revealed by data on salary levels and on wage arrears:

Table 26: Salaries Paid to Collective Enterprise Employees, 1999

<table>
<thead>
<tr>
<th></th>
<th>LO-VR</th>
<th>SO-ER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average salary paid at the JSCs (Rb/month)</strong></td>
<td>1500</td>
<td>269</td>
</tr>
<tr>
<td><strong>Average wages in the Leningrad and the Saratov oblasts, November 1998 (Rb/month)</strong></td>
<td>1160</td>
<td>740</td>
</tr>
<tr>
<td><strong>Minimum subsistence income for the Leningrad and the Saratov oblasts, October 1998, (Rb/month)</strong></td>
<td>630</td>
<td>544</td>
</tr>
<tr>
<td><strong>Wage arrears (months)</strong></td>
<td>1.79</td>
<td>12-24</td>
</tr>
</tbody>
</table>

*Source: Supplement to the Socioeconomic Situation in Russia, Moscow, 1998; Survey of the households of the JSC employees/shareholders, the World Bank, SO-ER, LO-VR, 1999.

As Table 26 demonstrates, salary payments in SO-ER are well below the _oblast_ subsistence indicators, while in LO-VR, salary payments not only pass this minimum threshold, but are above the _oblast_ average. The regularity of payments is also
dramatically different in the two raions: in SO-ER wage arrears to the employees have doubled from approximately one year in 1994 to two years in 1997, while in LO-VR wage arrears decreased during the same period from 3 to 2.7 months. Reported salary payments are primarily cash payments. In-kind payments may be recalculated and included in the wage payment reporting, but this is not a widespread practice.

If our assumption of economic rationality of actors involved in agricultural production is correct, there should be reasons other than salaries that attract employees to JSCs in SO-ER.

The surveyed employees/shareholders of the collective farms rank the reasons for staying with the collective as opposed to starting individual production as follows:
Chart 8: Why do you not leave the collective farm to start an individual farm?
Organizational and Production Reasons:

Vsolozhsk Raion

1. (32%) - I will not be able to procure fuel, fertilizer, feed and hay by myself
2. (26%*) - I will not be able to buy/rent equipment
3. (22%*) - The JSC manages the enterprise better than I could have done it myself
4. (16%*) - I will not be able to afford services (veterinary, land tilling, etc.)
5. (4%) - The size of the plot is not sufficient
6. (12%*) - Other

Engels Raion

1. (39%) - I will not be able to procure fuel, fertilizer, feed and hay by myself
2. (44%*) - I will not be able to buy/rent equipment
3. (6%*) - The JSC manages the enterprise better than I could have done it myself
4. (4%*) - I will not be able to afford services (veterinary, land tilling, etc.)
5. (6%) - The size of the plot is not sufficient
6. (1%*) - Other

Note: * means significant at 5 per cent level according to z-test for a proportion

264

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As Chart 8 demonstrates, the employees in both SO-ER and LO-VR recognize that it would be very difficult to procure the inputs and equipment necessary for individual production (responses 1 and 2). In SO-ER, however, the employees believe these problems to be paramount almost to the exclusion of all the other reasons. The number of respondents who see these obstacles as primary in hindering individual farming is 25 per cent higher in SO-ER than in LO-VR, a statistically significant difference. Another major distinction in responses between the two raions is the respondents’ assessment of the performance of the JSC. One-fifth of LO-VR respondents (22 per cent) believe that the JSC actually manages agricultural production better than an individual farmer could. In SO-ER only 6 per cent of respondents believe that the collective farm is a better producer than an individual one.

Hence, the assertion that the JSC is better able to acquire inputs needs to be more closely examined. Since the employees, particularly in SO-ER, do not report to staying in the collective farm because they believe the JSC to be a superior, and potentially more profitable, agricultural producer, it is hypothesized that they are maximizing on the traditional ability of the JSC to provide inputs and services for private plots owned by the employees of the collective farm in parallel with their ownership of land shares in the JSC. In the sub-section that follows, the role of the JSC as an input provider will be the focus of the study.
Chapter 6A: Collective Farms as Input Providers

Soviet agriculture had one uncomfortable secret: despite the ideologically proclaimed superiority of planned collective agriculture, the state had to allow small-scale private agricultural production, since collective farms alone were never sufficiently efficient to feed the nation.\(^1\) Therefore, production on small private plots existed by default though they were officially named dying institutions. Because of the shaky ideological and legal status of private plots, no official channels were developed for supplying inputs to private producers. Under these circumstances, collective farms became the main unofficial source of inputs for the individual agricultural production of its employees. Karl-Eugen Wadekin describes various official and unofficial ways in which kolkhozy and sovkhozy provided their employees with in-kind inputs for private plot production.\(^2\) In the mid-30s collective farm managers were young urban communists brought into the countryside to instill the collectivist gospel. Over the years this profile changed from hostile outsiders whose main task was to promote collectivism regardless of cost, to paternalistic insiders who realized that for the survival of the collectivist structure, as well as for the survival of the households employed by the collective farm, they need to balance protection of their constituency with a tempered adherence to the fluctuating Soviet agricultural policy.\(^3\) This task prominently included open provision of

---


the kolkhoz and sovkhoz workers with inputs for their individual production or disregard for moderate theft.

In post-Soviet times, the JSCs continue to provide their employees, now shareholders, with inputs. In both districts of the survey, the employees/shareholders of the JSCs also grow crops and own cattle privately. However, the scale and importance of private production in household income differs dramatically between the districts.
Chart 9: Household Income by Source

1. (54%*) - cash wages paid by the JSC
2. (24%) - income paid by other employers
3. (2.6%*) - non-salary payments and other non-wage revenue from the JSC
4. (2.3%*) - revenue from individual agricultural production
5. (15.5%*) - other

Source: A household survey of the employees/shareholders of the JSCs, the Engels Raion of the Saratov Oblast, the Vsevolozhsk Raion of the Leningrad Oblast, 1999, The World Bank.

Note: * means significant at 5 per cent level according to z-test for a proportion.

268
As Chart 9 demonstrates, the sources of income for households in the two raions differ in two important ways. First, cash wage payments from the JSC in LO-VR constitute an important 54 per cent of total household income, while in SO-ER the same number stands at just 7.5 per cent.\footnote{The relative role of the sources of revenue does not change significantly if we control for the number of JSC employees per household.} The low reported wage income in the SO-ER is consistent with the farm-level records of wage payments presented in Table 23. In LO-VR, in–kind payments are an exception rather than the rule: 57 per cent of households in the LO-VR sample reported receiving no in–kind salary equivalents at all, while in SO-ER not a single household reported getting paid fully in cash.

The second important difference in the revenue structure in the two raions is the role of individual agricultural production: in SO-ER the JSC employees derive 45 per cent of their household income from sales of agricultural output from private plots, while in LO-VR only 2.3 per cent do.

The third difference is the role of non-salary transfers in the two raions. In SO-ER, non-salary transfers constitute 16 per cent of household income, while in LO-VR this number stands at 2.6 per cent. Predominantly, these are transfers in-kind. The expectation is that the in-kind transfers are the connecting link between the non-cash revenue from the JSC and the household-level production and the main reason why SO-ER employees stay with the JSC.
What are these payments? Unlike cash, agricultural in-kind payments have an important qualitative aspect to them. The majority of in-kind payments are given in lieu of cash salaries. Since the enterprise measures the amount of salary it paid out and the amount of salary for which it is in arrears, there is an implicit price attached to in-kind salary payments. There are market channels available for the purchase of the same commodities, and as the survey demonstrated, the employees are aware of the market prices of the commodities used as in-kind payments. The attractive aspect of in-kind payments, therefore, is the price discount that they receive on the market price of a particular commodity. Calculations of cash equivalents of in-kind transfers will be presented together with institutional trappings of these transfers.

Theoretically, prices in in-kind transactions can be set equal to, below or above the market price, making this form of payment an undistorted equivalent of monetized purchases, a tax or a subsidy. This is not a reciprocal gift-giving, as were the majority of transactions in pre-capitalist societies as well as informal transactions in capitalist ones. These are particular hybrid post-Soviet exchanges in which the power relations between the buyer and seller, their respective production or consumption objectives, and their opportunity sets determine the deviation of pricing from the market.

---

To understand the nature and the dynamics of transactions between the JSCs and their employees, the scale of in-kind payment will be assessed and, where possible, internal pricing will be compared to the market one:

**In-Kind Payments**

Transfers between JSCs and their employees have their own hierarchy and institutional history. The more these exchanges are removed from a reciprocal non-monetized basis and the closer they get to cash payments, the more transparent and straightforward in a market sense these transactions become. The reason for this progression is the source of cash in the post-Soviet environment. As I described earlier, the main source of subsidies to the JSCs during the studied period were CCs provided by the provincial governments. To obtain enough cash to pay cash wages to the employees, the JSC has to “go to the market,” in other words, to find buyers capable of purchasing agricultural output with “live money.” Such buyers do not exist among budgetary institutions. To find them, the enterprise has first to absorb the costs of the search and, second, to adhere to more rigorous contracts, since in a barter economy such buyers are in great demand and can choose among suppliers.6

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6 On the value of barter vs. cash transactions in Russia see Clifford Gaddy and Barry Ickes, *Russia's "Virtual" Economy* (Wantage: University Presses Marketing for the Brookings Institute, 1999).
In the absence of cash, the main in-kind transaction between the collective enterprise and its employees are in-kind wage payments. In the late Soviet period (late 1980s to the early 1990s), the employees of collective farms were receiving monthly cash wages that for ideological reasons of "smoothing the difference between the city and the village" were similar to the salaries of factory workers. After the collapse of the Soviet Union, the massive federal subsidies that made such payments possible were curtailed, but the contract – the formal salary entitlement and the informal expectation of regular year-long provision of basic necessities-remained.

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7 For more on the wage payments to agricultural workers in Soviet times see Medvedev, Soviet Agriculture.
Table 27 summarizes the main commodities that are given out as in-kind payments.

**Table 27: In-kind Wage Payments by Commodity**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>SO-ER</th>
<th>LO-VR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per cent of recipient households</td>
<td>Per cent of recipient households</td>
</tr>
<tr>
<td>Total number of households</td>
<td>96 / 100 per cent</td>
<td>89 / 100 per cent</td>
</tr>
<tr>
<td>Straw/Hay</td>
<td>83 1</td>
<td>1</td>
</tr>
<tr>
<td>Forage Grain</td>
<td>60 0</td>
<td>0</td>
</tr>
<tr>
<td>Bran</td>
<td>7 0</td>
<td>0</td>
</tr>
<tr>
<td>Food Grain</td>
<td>48 0</td>
<td>0</td>
</tr>
<tr>
<td>Cattle &amp; hogs</td>
<td>69 0</td>
<td>0</td>
</tr>
<tr>
<td>Poultry</td>
<td>22 0</td>
<td>0</td>
</tr>
<tr>
<td>Meat</td>
<td>70 39</td>
<td></td>
</tr>
<tr>
<td>Milk</td>
<td>21 4</td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>40 19</td>
<td></td>
</tr>
<tr>
<td>Bread</td>
<td>10 0</td>
<td></td>
</tr>
<tr>
<td>Watermelons / Melons</td>
<td>32 0</td>
<td></td>
</tr>
<tr>
<td>Sunflower oil</td>
<td>39 0</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>13 0</td>
<td></td>
</tr>
<tr>
<td>Industrial goods</td>
<td>8 0</td>
<td></td>
</tr>
</tbody>
</table>

Source: A household survey of the employees/shareholders of the JSCs, the Engels Raion of the Saratov Oblast, the Vsevolozhsk Raion of the Leningrad Oblast, 1999, The World Bank.

As Table 27 demonstrates, the in-kind wage payments received by households in SO-ER constitute a long list of commodities, while in LO-VR there are only two commodities that are “paid out” to more than 5 per cent of employees. In LO-VR the employees can choose between receiving all or part of their salaries in cash or in-kind.
The time lag for receiving cash payments is such that employees prefer to wait for an average of 1.8 months for a cash payment rather than receive an in-kind salary. They usually accept an in-kind payment when their household is short of cash, needs food for subsistence or when they plan to sell the commodity received in-kind at a premium at the market.

In SO-ER, waiting for cash payment is not a viable survival option. It may not be a preferred option either. The in-kind payments in SO-ER can be divided into two main groups. The first group consists of goods that can be primarily used for consumption such as meat, milk, vegetables, bread, melons, cheese and sometimes industrial goods such as construction materials and clothing, in other words, items received by the collective enterprise as barter payments. The second and the more widely used group of in-kind payments are those commodities that can be used as inputs in individual agricultural production, particularly livestock and dairy production, such as hay, straw, fodder, cattle, and bran:
Table 28: Physical Measurement of In-kind Payments per Recipient Household

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Unit</th>
<th>SO-ER In-kind payment per recipient household</th>
<th>LO-VR In-kind payment per recipient household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straw/Hay</td>
<td>ton</td>
<td>2.4</td>
<td>0</td>
</tr>
<tr>
<td>Forage Grain</td>
<td>kilo</td>
<td>741</td>
<td>0</td>
</tr>
<tr>
<td>Bran</td>
<td>kilo</td>
<td>214</td>
<td>0</td>
</tr>
<tr>
<td>Food Grain</td>
<td>kilo</td>
<td>129</td>
<td>0</td>
</tr>
<tr>
<td>Hogs</td>
<td>head</td>
<td>2.48</td>
<td>1</td>
</tr>
<tr>
<td>Poultry</td>
<td>head</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>Meat</td>
<td>kilo</td>
<td>31</td>
<td>66</td>
</tr>
<tr>
<td>Milk</td>
<td>liter</td>
<td>821</td>
<td>66</td>
</tr>
<tr>
<td>Vegetables</td>
<td>kilo</td>
<td>167</td>
<td>100</td>
</tr>
<tr>
<td>Bread</td>
<td>loaf</td>
<td>491</td>
<td>0</td>
</tr>
<tr>
<td>Melons</td>
<td>kilo</td>
<td>111</td>
<td>0</td>
</tr>
<tr>
<td>Sunflower oil</td>
<td>liter</td>
<td>14</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: A household survey of the employees/shareholders of the JSCs, the Engels Raion of the Saratov Oblast, the Vsevolozhsk Raion of the Leningrad Oblast, 1999, The World Bank.

Data in table 28 show that the physical volume of in-kind payments is much larger in SO-ER than in LO-VR.

The JSCs in LO-VR, where in-kind payments are a choice rather than a necessity, have another arrangement for a limited provision of employees with the subsidized foodstuffs. Importantly, the arrangement is aimed at transferring agricultural output to the employees rather than inputs for individual production. The LO-VR employees can buy a restricted amount of output from the JSC toward their salaries or in addition to their...
salaries at discounted prices. Table 29 summarizes the volume of discounted purchases from the collective enterprise. These are formalized exchanges, with clearly stated prices. 85 percent of employees reported that such payments exist, while 81 percent reported using them on a regular basis.

Table 29: Limited Purchases of JSC–produced Commodities in LO-VR

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Monthly ration (kilo)</th>
<th>Actual purchases Kilo/% of h'holds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat³</td>
<td>4.7</td>
<td>5.5 / 60</td>
</tr>
<tr>
<td>Milk</td>
<td>24.7</td>
<td>21.7 / 53</td>
</tr>
<tr>
<td>Potatoes</td>
<td>17.2</td>
<td>15.9 / 29</td>
</tr>
<tr>
<td>Cream</td>
<td>4.8</td>
<td>4.6 / 15</td>
</tr>
<tr>
<td>Cabbages</td>
<td>9.3</td>
<td>6.9 / 22</td>
</tr>
<tr>
<td>Carrots</td>
<td>4.9</td>
<td>4.6 / 14</td>
</tr>
<tr>
<td>Beets</td>
<td>4.5</td>
<td>4.5 / 14</td>
</tr>
<tr>
<td>Butter</td>
<td>2.3</td>
<td>2 / 13</td>
</tr>
</tbody>
</table>

Source: A household survey of the employees/shareholders of the JSCs, the Engels Raion of the Saratov Oblast, the Vsevolozhsk Raion of the Leningrad Oblast, 1999, The World Bank.

The benefit of in-kind payments is the discount at which commodities are “sold” to the employees.

³ Purchases of meat appear higher than the quota, which means that the quota is established per household member and the households that take advantage of the purchasing scheme have more than the average number of members.
Table 30: Prices of Commodities by Channel of Acquisition

<table>
<thead>
<tr>
<th>Units</th>
<th>SO-ER</th>
<th>LO-VR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Internal JSC prices</td>
</tr>
<tr>
<td>Straw/Hay</td>
<td>Rb/ton</td>
<td>56</td>
</tr>
<tr>
<td>Grain</td>
<td>Rb/ton</td>
<td>94</td>
</tr>
<tr>
<td>Hogs</td>
<td>Rb/hd</td>
<td>58</td>
</tr>
<tr>
<td>Meat</td>
<td>Rb/kilo</td>
<td>67</td>
</tr>
<tr>
<td>Milk</td>
<td>Rb/liter</td>
<td>20</td>
</tr>
<tr>
<td>Vegetable</td>
<td>Rb/kilo</td>
<td>38</td>
</tr>
<tr>
<td>Melons</td>
<td>Rb/kilo</td>
<td>31</td>
</tr>
<tr>
<td>Sunflower oil</td>
<td>Rb/liter</td>
<td>37</td>
</tr>
</tbody>
</table>

* In bold type are the prices that differ at a 10% significance level (t-test)

Source: Household survey; Winter, 1999.

Of the two market prices listed in Table 30, the first is a self-reported market price, the price at which the surveyed employees of the JSC reported selling their agricultural output or buying inputs through market channels. The second market price is constructed from monthly commodity prices collected at the oblast statistical agencies. The method of averaging depends on the pattern of receiving in-kind payments reported by the JSC employees. For example, meat in-kind payments in SO-ER are traditionally made before national holidays; therefore, meat prices are averaged by the month preceding the holiday. Table 30 contains data on commodities which 20 employees or more report to have...
received as in-kid payments. Table 30 shows that internal prices in SO-ER are lower and significantly different from market prices.

This study shows that both the volume of in-kind payments and the level of price distortions in in-kind arrangements are higher in the more distributionist SO-ER than in the more market-oriented LO-VR. What are the implications of these differences for the households in the two raions? How are the in-kind payments used by the households?

The Use of In-Kind Payments

Studying the structure and the volume of in-kind payments in Table 28, and the number of households that receive these payments presented in Table 30, it becomes evident that the majority of items can be used as inputs for livestock production. Are other channels of input acquisition available to the JSC employee? If the answer is “yes”, how important is the JSC in comparison to other channels of input acquisition?
Table 31: Procurement of Inputs by JSC employees by Source

<table>
<thead>
<tr>
<th>Sources of inputs</th>
<th>JSC (Average amount for the source / no of households)</th>
<th>Market Sources: stores, local markets, private sellers (Average amount from the source / no of households)</th>
<th>Informal Sources: friends, relatives, reproduction (Average amount from the source / no of households)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fodder Grain</strong></td>
<td>0.8 / 81</td>
<td>2.21 / 31</td>
<td>--</td>
</tr>
<tr>
<td>(ton/hhold)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Straw/Hay</strong></td>
<td>2.6 / 109</td>
<td>2.4 / 8</td>
<td>1.5 / 1</td>
</tr>
<tr>
<td>(ton/hhold)</td>
<td>2.5 / 61</td>
<td>3.9 / 15</td>
<td>4.1 / 25</td>
</tr>
<tr>
<td><strong>Hogs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(heads/hhold)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Poultry</strong></td>
<td>32 / 21</td>
<td>31 / 35</td>
<td>--</td>
</tr>
<tr>
<td>(heads /hhold)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bran</strong></td>
<td>20.3 / 13</td>
<td>17 / 15</td>
<td>18 / 21</td>
</tr>
<tr>
<td>(centner/hhold)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


As Table 31 demonstrates, the JSC is not the only available source of inputs for livestock production but it is by far the most commonly used one, particularly in SO-ER. In SO-ER, 81 households rely on the JSC for purchases of fodder. Out of these households 31 additionally rely on market channels such as individual salesmen, local markets or privately owned stores. Hay is predominantly provided by the JSCs as well; 109 respondents receive all of the hay their household uses in private production from the collective enterprise and only 8 additionally rely on private sales.

The fact that a significant number of hogs are given to employees in lieu of salary in SO-ER might be taken as a sign that the collective enterprises in SO-ER are focusing more on crop production, while the employees as private producers are concentrating on livestock production. However, in reality, the employees do not report any significant
increase in private livestock production: 52 per cent of SO-ER households reported having fewer cattle and poultry in 1998 than they had three years before. For 31 per cent of the households, the number had not changed, and only 17 per cent reported that their livestock production had increased.

This apparent contradiction may be explained by the limitations of the collectivist setup. The access that individual farmers have to inputs through the JSC is constrained by the egalitarian nature of the JSC as input provider. All the employees/shareholders are entitled to limited amounts of inputs but not to the larger shares that would allow some individual farms to grow faster than others. Input distribution at lower than market prices is in effect a rationing scheme that keeps the government happy by ensuring social stability and political support for the government in the countryside, and serves as an insurance and a subsistence scheme for the JSC employees. If any of the players were consistently receiving higher than average shares of inputs, the sustainability of the distribution mechanism would be undermined.

Information on the volumes of inputs procured from different channels corroborate this interpretation. The amount of grain and straw/hay provided by the JSC (the first column of Table 31) approximately represent the fodder and feed requirements per cow per year. If employees need inputs in larger quantities, they have to acquire them from other sources. Grain is a particularly restricted commodity because it has a higher and a
better defined market value than straw and hay and is not available in large quantities on
the market due to the policies of the SO government. As is evident from Table 31, to
purchase higher quantities of grain and hogs, i.e. to increase private agricultural
production beyond subsistence, the JCS employees have to use market channels.

**Land Share Payments and the Related Services**

The second type of transfers between the JSC and its employees is payment for the
lease of land shares. This type of transfers has a new “market” name and is codified in a
collective agreement between the JSC and its employees. Closer scrutiny reveals that in
SO-ER these transfers are need-based. As with the in-kind payments, in LO-VR these
transfers are closer to the market-oriented model and their scale and structure is more
related to the profitability of the enterprise.

On average, 40 per cent of shareholders in both districts are not paid directly for
leasing land to the collective. The percentage is higher in LO-VR. Does the lower
percentage of payments for land shares indicate less developed, less “pro-market” land
relations in LO-VR?

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9 "Nauchnaya sistema vedenija zhivotnovodstva v Saratovskoi oblasti" [Scientific livestock production in the Saratov
Oblast], Saratov, 1983, 66.

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Table 32: Does the JSC pay you for the rental of land shares?

<table>
<thead>
<tr>
<th>District</th>
<th>Yes Percentage of h'holds with shares</th>
<th>No Percentage of h'holds with shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO-ER</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>LO-VR</td>
<td>43</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: A household survey of the employees/shareholders of the JSCs, the Engels Raion of the Saratov Oblast, the Vsevolozhsk Raion of the Leningrad Oblast, The World Bank, 1999.

Payments for land shares in LO-VR exist in two forms, dividends and lease payments.

The concept of a dividend in LO-VR is close to its Western equivalent -- a percentage of the profit of an enterprise that is paid out to shareholders. Shareholders of the two most profitable and most prosperous farms in LO-VR reported receiving dividends; 9 out of 12 respondents in the JSC "Ruch' i" and 8 of the 12 respondents in the JSC "Prinevskoe" reported to have received cash dividends in 1997.
According to the manager of one of the two dividend-paying enterprises, his goal in paying dividends was "to awaken an owner in an employee (for more detail see interview with the manager of the JSC "Ruch'I," Chapter 5a)."10

Another form of payment to shareholders is a lease payment. Lease payments in LO-VR exist both in cash and in-kind. Only employees of the few profitable farms in LO-VR reported receiving cash payments. As Table 34 demonstrates, the size of cash payment is correlated with the profitability of the JSC.

In LO-VR, the recently unprofitable JSCs, those that became unprofitable for the first time in 1997, pay their employees in vegetables. Vegetable payments consist of a basket of vegetables produced by the JSC, primarily the ones that are easily sold at a local market or at a crossroads. The implicit price of vegetables in lease payments equals Rb. 1 per kilo. This is three to four times lower than the market vegetable price and about 50 per cent lower than the JSC prices used in the internal purchase arrangements. The reason for such low valuation of in-kind rent payments is that these payments are viewed as an inferior barter substitute for cash transactions that are accepted by the employees at times of monetary crunch.

10 Interview with Alexandr Trofinov, Director of the JSC "Ruch'I".
The consistently unprofitable collective farms in LO-VR do not provide any land share payments, either in cash or in-kind. The goal of the interviewed managers of these enterprises is to increase the profitability of the enterprise and only then to resume or introduce rent and dividend payments.

Table 33: Average Dividend and Rent Payments in the LO-VR

<table>
<thead>
<tr>
<th>Type of payment for land shares</th>
<th>Share of recipients (% of the total number of LO-VR surveyed h'holds)</th>
<th>Number of JSCs that provide payments</th>
<th>Size of payment (RB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividends</td>
<td>24</td>
<td>2</td>
<td>234</td>
</tr>
<tr>
<td>Rent payment</td>
<td>38</td>
<td>5</td>
<td>195</td>
</tr>
<tr>
<td>Incl.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash rent payment</td>
<td>17</td>
<td>3</td>
<td>153</td>
</tr>
<tr>
<td>In-kind rent payment (kilos of vegetables)</td>
<td>22</td>
<td>2</td>
<td>216</td>
</tr>
<tr>
<td>Total land share payments</td>
<td>56</td>
<td>6</td>
<td>226</td>
</tr>
<tr>
<td>Total number of households</td>
<td>89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of JSCs</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Land share payments in LO-VR in 1998 represented developed, varied and codified types of transactions. These are transparent payments separate from salary or bonus payments and specific to the new shareholding status of the worker, a payment that is different from similar Soviet time transactions that had little relation to the profitability of the enterprises. The size of LO-VR in-kind payments to shareholders are correlated to the profitability of the enterprise and the correlation coefficient is higher the more monetized the transactions:

Table 34: Correlation between the Profitability of the Enterprise and Land Payments in LO-VR

<table>
<thead>
<tr>
<th>Correlation between the margin of profit of a JSC and size of payments for land shares</th>
<th>Correlation index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash rent payments</td>
<td>0.80</td>
</tr>
<tr>
<td>In-kind rent payments</td>
<td>0.41</td>
</tr>
<tr>
<td>Total rent payments</td>
<td>0.64</td>
</tr>
</tbody>
</table>

Source: Household survey, Winter, 1999, the World Bank,

A household survey demonstrates that the logic of land payments is different in SO-ER. Dividends are paid out in one JSC. The size of in-kind lease payments is based on
collective agreements between the JSC and its shareholders. Collective agreements in the majority of the enterprises were drawn up in 1997, a bumper crop year. The agreements represent a reference point, an upper limit of what an employee as a shareholder is entitled to. Nine out of 12 collective agreements contain cash equivalents ranging from the total of Rb.99 to Rb.400, whereas actual land-share payments in 1998 averaged Rb.180 in cash equivalents using internal JSC prices. The lease payments listed in the collective agreements are not correlated with the profitability of the enterprise. Interviews with the managers indicated that the size of the payment specified in the collective agreements is representative of the bargaining position of the employees in relation to management; the actual payments, however, are correlated with the profitability of the enterprise.

Table 35: Correlation between the profitability of the enterprise and land payments in SO-ER

<table>
<thead>
<tr>
<th>Contractually specified lease payments</th>
<th>Average of lease payments</th>
<th>Correlation between the lease payment and profit margin of the enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractually specified lease payments</td>
<td>315.5</td>
<td>-0.22</td>
</tr>
<tr>
<td>Actual lease payments in cash equivalents in 1998</td>
<td>180.0</td>
<td>0.67</td>
</tr>
</tbody>
</table>


Another key difference between SO-ER and LO-VR is not just the size of the lease payments, but the way in which they are used. Vegetables given out in LO-VR in lieu of cash
payments can either be sold or consumed by the shareholder. In SO-ER, shareholders use in-kind lease payments (which almost always consist of hay, straw and grain) as inputs for private production. The apparent market-based lease payment in reality turns out to be a risk-mitigating device, a guarantee that the old input-providing contract is upheld even in the new economic environment.

Collective Farms as Shields from the State

The most bizarre part of the leasing arrangement is the shareholder's right to lease some of the land back from the JSC. In both districts, the household-level survey uncovered this peculiar phenomenon. After leasing land shares to the JSC, the employees rent part of it, smaller land allotments, back. These allotments are distinct from the private plots that collective farm employees officially possessed during Soviet times and continue to own. In the two districts, these rent-back arrangements have different names and are differently structured. Table 36 summarizes land ownership and use reported by the surveyed JSC employees in the two districts.

In LO-VR, the rented-back land is known by a traditional pre-Soviet name of land strips (borozdy), reminiscent of communal landholding. Land strips are allocated to the JSC employees in a common field and are annually reallocated by the council of shareholders together with the JSC administration. The field is ploughed, fertilized and sown by the JSC. The employees harvest the strips – usually vegetables or potatoes – and use the output either for household consumption or sales.
In SO-ER, the land plots rented to the employees are called *vegetable gardens* (*ogorody*). These plots are also redistributed annually. The main difference between the two arrangements is that vegetable gardens represent small individual plots rather than strips in the same field and, therefore, no coordination is required in choosing what crops to cultivate.

**Table 36: Land Use and Ownership by Raion**

<table>
<thead>
<tr>
<th></th>
<th>SO-ER</th>
<th>Vegetable gardens</th>
<th>Private Plots</th>
<th>Land Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of h’holds that hold this type of land</td>
<td>84</td>
<td>100</td>
<td>92.2</td>
<td></td>
</tr>
<tr>
<td>Size of the plot per household (in hectares)</td>
<td>0.066</td>
<td>0.064</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td>LO-VR</td>
<td>Land Strips</td>
<td>Private Plots</td>
<td>Land Shares</td>
<td></td>
</tr>
<tr>
<td>Percentage of h’holds in the district sample</td>
<td>88</td>
<td>29</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Size of strips/plots per household (in hectares)</td>
<td>0.063</td>
<td>0.095</td>
<td>1.72</td>
<td></td>
</tr>
</tbody>
</table>

* Averages are calculated for land-using households only.

In SO-ER, each shareholder is entitled to 0.03 to 0.045 of a hectare (3-4.5 *sotki*) of a garden plot at a symbolic price subtracted from his or her salary or free of charge. If the vegetable garden that a household rents from the JSC is bigger than the sum of
entitlements of all of the shareholders in the household, the household has to pay a higher price for the additional rental land. The same payment is expected from non-shareholding, full-time employees of the JSC. These additional charges are still much lower than the prices that outsiders would have to pay for comparable services.

In LO-VR, the JSC shareholders together with the JSC administration decide annually which field should be allocated for private use. The pricing arrangements are similar to those in SO-ER. The rented land is prepared for sowing by the JSC; the JCS equipment is used to plough the land and sow the seed and is often leased for free to the employees in exchange for their transporting the crop. The land rental prices include the price of ploughing, tilling and fertilizing services from the JSC. Table 37 demonstrates that in both districts discount for land and services for internal users are very high.

Table 37: Average Price for Land Rental and Land Service Provision

(RB per 1 sotka, 0.01 hectare)

<table>
<thead>
<tr>
<th>District</th>
<th>The JSC price</th>
<th>Market Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO-ER</td>
<td>21.1</td>
<td>76.25</td>
</tr>
<tr>
<td>LO-VR</td>
<td>9.0</td>
<td>32.5</td>
</tr>
</tbody>
</table>

Source: Household survey, the World Bank, Winter 1999. Land rental prices for outsiders were collected from the accountants of the JSCs in the Vsevolozhsk Raion and in the Engels Raion, Winter, 1999.
The benefits to the JSC employees of these land rental arrangements are apparent. However, there is another aspect of the rent-back arrangement that makes it even more attractive to shareholders. By renting some of the land back to its employees, the JSC provides one more important indirect service — it shields them from the scrutiny of the state. Individual land users become invisible to the tax office, the inspection agency and other state agencies.

The need for a shield is path-dependent. It is ironic to note that the role of the JSC in relation to the state ended up being the exact opposite of the original Soviet intention. In early 1930s, kolkhozy were to provide the state with a window on rural life, making the otherwise impenetrable communal life transparent to the Soviet planners. Gradually kolkhozy and their heirs, the JSCs became the exact opposite — a shield between state agencies and individual shareholder farmers.

James Scott uses the post-collectivization transformation of the Russian village as an example of the success of the state in fighting the impenetrability of rural life. However, this accurate description of the initial brutal successes of collectivization does not tell the second half of the story. As soon as the state created a transparent, factory-like system of collective agricultural production, the collectivized peasants themselves began a complicated and crafty fifty-year project to obscure the state’s view. Now, at the end of those fifty years, it is obvious that this project succeeded. Looking at a collective farm, the state cannot say with certainty which output was produced by the collective and which
by the individual, or even (as has just been demonstrated) which land is farmed collectively and which individually.

**Collective Farms as Safety Nets of Last Resort**

The JSC managers admit (see Chapter 5) that they perceive themselves as heads of a commune. This perception is stronger in SO-ER, but the more profit-oriented LO-VR managers universally recognize that their responsibility to the employees goes beyond (and often replaces) the obligatory social protection. Most directly the value of this support is revealed in an answer to the question: Does the JSC provide payments in case of urgent expenses/emergencies? The questionnaire specified such expenses as weddings, a farewell party for a recruit, illness or a funeral. Responses are summarized in Table 38:

**Table 38: Have you received an emergency payment from the JSC this year?**

<table>
<thead>
<tr>
<th>District</th>
<th>Number of recipients/per cent of the total</th>
<th>Size of payment (RB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO-ER</td>
<td>12/13%</td>
<td>519</td>
</tr>
<tr>
<td>LO-VR</td>
<td>20/22%</td>
<td>720</td>
</tr>
</tbody>
</table>


---

Thirteen per cent of employees in SO-ER and 22 per cent of employees in LO-VR reported having received emergency payments from the collective in the past year. Despite the cash crunch facing most of the JSCs, emergency payments were all made in cash. The relative size of these payments equals almost two average cash salary payments in SO-ER and a two-week salary in LO-VR. Furthermore, 52 per cent of employees in SO-ER responded that they feel they can count on such support in the case of an emergency. None of the respondents reported going to local village or municipal authorities with their problems.

To summarize, the JSC provides multiple services to its employees. Most of them are provided in non-cash forms. In SO-ER more than in LO-VR, these services codify the Soviet tradition. Historically collective farms served as a source of inputs for its employees. When collective farm employees started to have more impact on the decision making in the collective farm, the employees/shareholder’s idea of just and desirable restructuring was a double-tier pricing structure skewed in their favor. The continuous oblast-level subsidization described above has ensured that SO-ER employees can afford to operate within this post-Soviet mindset.

In LO-VR, one can see the beginnings of new institutional arrangements geared to making employees become true owners. True owners here mean those who are interested primarily not in the JSC as a provider of inputs but in the very profitability of the
enterprise to the extent that it is capable, at minimum, of paying cash wages to its employees and, at a maximum, of generating dividends to benefit them as shareholders.

In both raions, the employees feel sufficiently threatened by the state to avoid interacting with it by hiding behind the shield of the collective enterprise. This reaction is path-dependent. Indeed, if we were searching for a historical explanation of why Russian peasants do not want to become individual farmers, we would not need to look further. Throughout Soviet history, the state was proven to be a strong and consistent enforcer of the anti-peasant rules of the game and a weak and inconsistent protector and guarantor of peasants' rights. It has been argued that "...history creates an asymmetry of information: people know more about the institutions with which they have lived than about the institutions with which they have not lived."12 Russian peasants learned how to turn the state system of transfers and distortions to their advantage. They are making an effort to adapt the new institutions in ways that enable them to continue benefiting from this knowledge. It takes a consistent market-oriented policy to make it all but impossible for collective enterprises to continue to distort prices and services and continue in the role of an inefficient producer but a reliable subsistence input provider and a shield from the state.

Chapter 6B: Who is Better Off? The Relative Value of Cash Payments and In Kind Transfers

The previous section demonstrated that input provision and other in-kind transfers are core transactions between the JSCs and their employees in SO-ER but are marginal in LO-VR. One important sustainability and welfare question is: which arrangement is more beneficial to the employees both in terms of monetized equivalents and in terms of perceptions of welfare? Relative value of monetized payments as compared to the barter payments of restricted use is very difficult to assess, but the value of barter payments at the JSC and market prices can be calculated. This exercise will help establish the size of discount compared to market prices that each household receives from the JSC. As the next step the value of payments that the JSC employees receive in SO-ER will be compared to the salaries that are received by the employees in LO-VR.

Table 39: Transfers from the JSC by Source per Employee/Shareholder (in RB)

<table>
<thead>
<tr>
<th>District</th>
<th>In-kind payments</th>
<th>Cash Payments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emergency payments</td>
<td>JSC cash salary</td>
<td></td>
</tr>
<tr>
<td>SO-ER</td>
<td>1861</td>
<td>19</td>
<td>429</td>
</tr>
<tr>
<td>Percentage of total revenue</td>
<td>80</td>
<td>0.1</td>
<td>19</td>
</tr>
<tr>
<td>LO-VR</td>
<td>85</td>
<td>12</td>
<td>9106</td>
</tr>
<tr>
<td>Percentage of total revenue</td>
<td>1</td>
<td>0.1</td>
<td>98</td>
</tr>
</tbody>
</table>

The values in Table 39 are averaged per shareholder including the non-recipients of a particular service. In-kind payments are calculated using self-reported volumes of in-kind payments by commodity at \textit{internal} JSC prices. Table 39 confirms the self-reported assessment of the role of cash payments (see Chart 9, Chapter 6a). Salaries are by far the most important transfers that LO-VR employees receive from the collective enterprise, but salaries constitute just 19 per cent of transfers in SO-ER. The reverse is true of in-kind payments. On average, employees/shareholders in SO-ER receive 80 per cent of their revenue in-kind, while in LO-VR in-kind transfers constitute on average only 1 per cent per shareholder.

To obtain a more accurate market valuation of in-kind transfers, the value of in-kind payments is recalculated in market prices of the same commodities. The prices used for calculations are averages of the self-reported market prices by the source of acquisition if more than three respondents had reported a market price for a certain commodity. If the survey data did not contain sufficient information on the market price of a certain commodity, the oblast-level annual averages were used instead. As the survey in LO-VR was carried out three months later than the survey in SO-ER, the prices prevalent from March 1998 to March 1999 in LO-VR were used for the calculation of the oblast average, while in SO-ER the averages are monthly 1998 prices.

For LO-VR, the market value of in-kind transfers consists of the sum of the value of in-kind payments at market prices and of the difference between the value of purchases
of agricultural commodities from the JSC at internal prices and the market value of these purchases. Compared to Table 39, Table 40 has been expanded to include another quantifiable value that the JSC provides to its employees -- the market value of land lease payments. The benefit that the JSC employees receive from this transfer is calculated as the difference between the market price of land rental and tilling services as reported by the JSC accountants and the price that the JSC charged its employees for providing this service. Since the quantifiable value of emergency payments is insignificant relative to total transfers, this item has been omitted in Table 40.

Table 40: Market Value of Transfers per Employee/Shareholder

<table>
<thead>
<tr>
<th>District</th>
<th>In-kind payments</th>
<th>Land Lease Payment</th>
<th>JSC salary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO-ER</td>
<td>3812</td>
<td>80</td>
<td>429</td>
<td>4321</td>
</tr>
<tr>
<td>% of the total</td>
<td>88</td>
<td>2</td>
<td>9</td>
<td>100</td>
</tr>
<tr>
<td>LO-VR</td>
<td>369</td>
<td>220</td>
<td>9106</td>
<td>9695</td>
</tr>
<tr>
<td>% of the total</td>
<td>4</td>
<td>2</td>
<td>94</td>
<td>100</td>
</tr>
</tbody>
</table>


The true market value of transfers for SO-ER differs from the value of transfers calculated in internal JSC prices in two important ways. First, the share of cash JSC salary relative to the total value of transfers from the JSC to the employee goes down by 10 per cent, from 19 to 9 per cent of the total to constitute less than one-tenth of the average income that an employee/shareholder derives from a JSC. Second, the value of
the total income that an employee derives from the JSC in SO-ER increases by 87 per cent, reducing the difference between the two raions in the total size of flows from JSCs to their employees. An SO-ER employee implicitly receives approximately one-half the amount of transfers that an LO-VR employee receives, compared to just one-quarter in Table 39, where the transfers are quoted by respondents at internal prices.

In LO-VR, since the share of non-cash transfers is much lower, revaluation based on market prices does not change the picture as dramatically as in SO-ER. The share of cash transfers is reduced by 4 per cent and the total value of transfers per shareholder is increased by 6 per cent.

As has been described above, JSC employees, especially in SO-ER, often use in-kind payments as subsidized inputs. The interviewed JSC employees overwhelmingly –96 per cent of respondents in LO-VR and 82 per cent of respondents in SO-ER - claim that it is more advantageous to them to procure inputs internally than through any of the available market channels. How does access to cheaper inputs affect the net income that the employees can derive from individual agricultural production?
Table 41: Net Income from Individual Agricultural Production per Household
(Rb)

<table>
<thead>
<tr>
<th>Districts</th>
<th>Revenue from private plots</th>
<th>Cost of Inputs and Services</th>
<th>Net Income from Private Plots</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SO-ER</td>
<td>22,037</td>
<td>1,714</td>
<td>3,988</td>
</tr>
<tr>
<td>LO-VR</td>
<td>5,908</td>
<td>520</td>
<td>---</td>
</tr>
</tbody>
</table>


The role of individual agricultural production in the livelihood of households differs significantly between the two raions. In SO-ER, income from private agricultural production constitutes the single largest source of family income (column 2, Table 41). In LO-VR, the revenue from private production of the whole household is secondary to the salary that just one shareholder receives from the JSC (Rb. 9,203 averaged annual salary payments as compared to Rb. 5,388 revenue from private agricultural production).

Revenue from private agricultural production includes individual crop, dairy and livestock production in SO-ER but only crop production in LO-VR, since only 6 households out of 89 in LO-VR reported holding cattle. As private agricultural production is a collective household effort, revenue is calculated per household rather than per shareholder. The costs of the inputs provided by the JSCs include physical inputs at internal JSC prices as well as tilling services provided by the JSC at internal JSC prices.
Purchases at market prices include self-reported market purchases of inputs. Since very few LO-VR households report purchasing inputs through market channels, these costs were not included in the calculation.

How does the cost of the same set of inputs differ if a person is not employed by the JSC? To gauge the importance of subsidization in the cost of inputs for the JSC employees, prevalent market prices are used in the calculation of the cost of the inputs that the employees reported receiving through the JSC (Table 41, column 3); then the exercise is repeated using internal JSC prices (Table 42, column 3).

Table 42: Net Income from Individual Agricultural Production per Household with Inputs provided by the JSC Recalculated at Market Prices (Rb)

<table>
<thead>
<tr>
<th>Raions</th>
<th>Revenue from private plots</th>
<th>Cost of Inputs and Services</th>
<th>Net Income from Private Plots</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Market value of inputs provided by the JSC (Rb)</td>
<td>Market value of inputs purchased at market prices (Rb)</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>SO-ER</td>
<td>22,037</td>
<td>3,061</td>
<td>3,988</td>
</tr>
<tr>
<td>LO-VR</td>
<td>5,908</td>
<td>1,313</td>
<td>---</td>
</tr>
</tbody>
</table>


The costs of inputs procured from the JSC include the market prices of physical inputs and of land tilling services. This calculation is not meant to provide an accurate
estimate of the costs of all inputs and services used by a person who is not connected to a JSC. Tables 41 and 42 underestimate the total volume of inputs received from the JSC, since many of the inputs are stolen, an age-old tradition in collective farms. Table 42 demonstrates that the cost of procuring the same inputs outside of the JSC would be at least twice as expensive as procuring them internally.

Finally, it is important to estimate the actual amount of revenue that an employee receives directly from the JSC or indirectly, by using inputs procured from the JSC for individual production. Table 43 summarizes revenue from agricultural activity by source and compares the total to the self-reported totals of household income.

Table 43: Household Revenue Derived from the JSC or from Individual Agricultural Production (RB)

<table>
<thead>
<tr>
<th>Raion</th>
<th>Market Value of JSC revenue 2</th>
<th>Net income from individual agricultural production 3</th>
<th>Total revenue from ag. activity (2+3)</th>
<th>Reported household income</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO-ER</td>
<td>4,321</td>
<td>16,335</td>
<td>20,656</td>
<td>11,930</td>
</tr>
<tr>
<td>% of total revenue</td>
<td>21</td>
<td>79</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>LO-VR</td>
<td>9,695</td>
<td>5,388</td>
<td>15,083</td>
<td>25,188</td>
</tr>
<tr>
<td>% of total revenue</td>
<td>64</td>
<td>36</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>


The figures for self-reported household income in SO-ER are lower than the calculated agricultural income figures primarily because the households in both raions
included only the share of the private plot production that was sold but not the share that was consumed by the household.

Total revenue from agricultural production was higher in SO-ER than in LO-VR, despite much lower cash transfers between the enterprise and its employees and despite the fact that SO-ER collective enterprises were much less profitable! The high monetary value of in-kind transfers from the JSC to the employees in SO-ER is a demonstration of the soft budget constraint of the enterprise and of the lack of restructuring, as the enterprise foregoes potential revenue from market sales for the sake of satisfying the needs of employees in foodstuffs and in inputs for individual production.

The discounted in-kind payments that the JSCs in SO-ER provide for their employees allows the employees to act individually as profit-maximizing economic actors and to invest these payments in their own production. The LO-VR employees tend to choose another strategy. Since the salary from the JSC is their most important source of income, they are much less engaged in individual agricultural production and are more likely to turn their profit maximizing efforts to the JSCs outputs.

Chapter 6C: Attitudes towards Change and the Collective Farm

There are two discernable patterns of deriving revenue from collective farms. These patterns represent two models of post-Soviet transactions. The first is a path-dependent pattern, in which agricultural employees view the collective farm as a source of legally or
illegally procured inputs but do not consider the success of the enterprise as critical to their own well-being. The second pattern follows a more market-oriented model, in which the incomes of employees depend on the ability of the enterprise to generate revenue.

In which of the districts do the employees perceive the income as more adequate to the consumption needs of the household?
Table 44: Self-perceived Income Sufficiency

<table>
<thead>
<tr>
<th>Which of the statements do you agree with first?</th>
<th>SO-ER %</th>
<th>LO-VR %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--Is not sufficient even for food?</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td>--Sufficient only for food?</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>--Is sufficient for food and clothes?</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>--Is sufficient for food, clothes, repairs of the house and of appliances?</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>--Is sufficient for food, clothes, repairs of the house and of appliances and the purchase of new appliances?</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>--Is sufficient for food, clothes, repairs of the house and of appliances and the purchase of new appliances and savings</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>


Table 44 summarizes self-reported household income sufficiency in the two districts. In both raions, approximately one-quarter of respondents said that their household income is not sufficient to buy enough food, although this percentage is higher in LO-VR. However, 39 per cent of respondents in SO-ER believed that they could afford to consume goods beyond bare necessities, 16 per cent more than in LO-VR. These are imprecise attitudinal measurements, but they can serve as an indicator of the sufficiency of the received transfers and cash payments. The SO-ER employees, who benefit from the
continuous soft budget constraint, appear to be better off than their counterparts in more
market-oriented JSCs.

In analyzing the size and types of transactions between the collective enterprises and
their employees, an attempt was made to gauge the importance of these transfers as direct
or indirect sources of income for their employees. What is not known yet is how the
households themselves rate the impact of the JSC on their lives? Which transactions do
they rank as the most important?

For the self-assessment of reasons for staying in the JSC, the respondents were
offered a choice of 16 reasons and were asked to rate them on a scale from one to five.
Table 45 presents the highest rated (a score of five) eight choices. (Up to the eleventh
choice if the answers overlap with a higher rating in the other district). The last two
columns rates the percentile score of the first two columns, from the most frequently
chosen reason to the least popular one:
### Table 45: Reasons for staying with the JSC

<table>
<thead>
<tr>
<th>Reasons</th>
<th>LO-VR</th>
<th>SO-ER</th>
<th>LO-VR</th>
<th>SO-ER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary—the main source of income</td>
<td>52*</td>
<td>4*</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>There is no other place to work</td>
<td>51*</td>
<td>73*</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Do not want to part with the co-workers</td>
<td>27*</td>
<td>8*</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>JSC allocates land for individual production</td>
<td>25*</td>
<td>40*</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>In-kind payments, an important source of food</td>
<td>15</td>
<td>15</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>JSC deals with the state about taxation, etc.</td>
<td>13*</td>
<td>0*</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>JSC helps in case of emergency</td>
<td>8</td>
<td>15</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>In-kind payments can be sold</td>
<td>6</td>
<td>4</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>In-kind payments can be used for ag. production</td>
<td>3*</td>
<td>26*</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>JSC serves as a provider of hay</td>
<td>2*</td>
<td>26*</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>JSC serves as a provider of fodder</td>
<td>0*</td>
<td>22*</td>
<td>11</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Household Survey, Vsevolozhsk Raion, the Leningrad Oblast, Engels Raion, the Saratov Oblast, the World Bank, Winter, 1999.

*Values LO-VR and SO-ER are significantly different at 10%.

The rating of the majority of reasons is widely and significantly different between the districts. In LO-VR monthly wages are perceived to be the main reason for working in the JSC by 52 per cent of employees. In SO-ER only 4 per cent of employees assigned the highest score to this reason. In terms of rating, in LO-VR wages are the most frequently
chosen paramount reason for working in the JSC, while in SO-ER they are rated as a ninth.

As expected, the role of the JSC as an input provider for private agricultural production is rated high in SO-ER. This reason ranks third in SO-ER, and only ninth in LO-VR. In SO-ER the most important contributions from the JSC are hay and fodder, both inputs for livestock production.

*The ability to rent back from the JSC a plot of land* is seen as very important by employees in both LO-VR and SO-ER. The third service that is named as important at the same level of significance in the two districts is provision of *support in case of emergency* - seventh for LO-VR, sixth for SO-ER.

Apart from the just presented information on different kinds of material compensations for staying with the JSC, there are reasons for staying that are not easily quantifiable. The one associated with the desire to stay with a familiar team of workers shows no correlation between the collectivism and more patriarchal types of exchanges: the employees in LO-VR who depend more on structured contractual salaries value their connection to the team of employees much higher than the employees in SO-ER (27 vs. 8 per cent), where both the relationships and exchanges are more traditional and less codified.
Finally, in both raions the JSC is viewed as the employer of last resort and the employees admittedly stay with the collective for the lack of better opportunities; however in LO-VR this reason is secondary to the role of the JSC as the source of monthly wages, and is rated as very important by only half of the respondents, while in SO-ER the lack of other employment opportunities is rated as very important by three quarters of the respondents and is the leading cause of staying with the collective.

Pro-market changes are painful. The employees of the more traditional SO-ER appear slightly better off both in quantifiable terms and in attitude than their more pro-market counterparts. However, this marginally higher satisfaction comes at the cost of preserving a very inefficient system. At the center of such a system is an enterprise that rates economic efficiency as secondary or equal in importance to its other roles -- those of an input provider, a safety net of the last resort and a willing or unwilling supporter of the authoritarian ambitions of the provincial government. Uncertainty about the success of openly profit-maximizing behavior in this environment breeds well-justified skepticism among the employees and encourages them to stay within the JSC.

What lessons can be drawn from this multi-level analysis of changes that have taken place in the two raions since the beginning of the reforms? What are the implications of these changes for gauging the success of agricultural reform and what are the broader policy implication of these findings? Answers to these questions conclude this study.
Chapter 7: Conclusions

Chapter 7A: Hypotheses and Findings

Puzzles and Answers

As was stated in the beginning, this study was inspired by the puzzle of the preservation of ineffective and inefficient collective agriculture at a time of legally sanctioned land privatization and individualization of agricultural production. What sustained the longevity of Soviet agricultural institutions in the post-Soviet context? To find an answer to this puzzle, the study traced the mechanisms and incentives through which the reproduction of Soviet institutions was taking place. Interactions organizing agricultural production and distribution were examined at three levels – administrative (oblast-raion), the farm, and the household. These three levels of analysis entailed the examination of three groups of political and economic actors – local administration, agricultural managers, and collective farm employees-turned-shareholders.

This analysis showed that, first, the path of post-socialist development diverged between oblasts, and, second, that the pace and direction of these transformations depended more on policies and implementation practices designed and undertaken by local administrators than on the nationally legislated agricultural policies. It was discovered that in the oblast where local administration continued to invest in the reproduction of the Soviet-style distribution of agricultural inputs and output, agricultural production and distribution remained hierarchical and non-market oriented, with
unclearly defined “boundaries of the farm and a poorly defined bundle of political, social, and economic benefits skewed in favor of governing political actors. It was also discovered that in the oblast where local government relinquished control over agricultural financing and distribution, collective farms were undergoing restructuring much faster, becoming self-contained agricultural firms, with well-defined borders, a well-defined primary goal of profit maximization and evolving contractual relations both with their employees and with local administration.

Reviewed literature and anecdotal evidence indicated that post-socialist hierarchical structures are a more common path for post-socialist development of collective agriculture than the path of creating independent market-oriented firms. In the course of the study of these paths it became apparent that the question that is yet more intriguing than the outcome of the reforms is the questions about particular mechanisms that allow for such different outcomes, the techniques that are particular to each of the divergent patterns in their paradigmatic specificity. Paradigmatic specificity is defined within the context of the chosen path in terms of the whole chain of production on the one hand and the behavior of the main political and economic actors at the above-mentioned three levels on the other.

In summarizing the answers to the question about the outcomes of development and the mechanisms that make these outcomes possible, the hypotheses formulated in the
beginning of the study is revisited and a broader framework for analyzing the observed patterns is adopted.

Administrators and Managers

The first hypothesis stressed the shift of the initiative for reform implementation away from the national government down to regional actors. This study demonstrated that the federal government failed to create institutions that could have channeled the agricultural reform in a way so as to mandate that incentives were communicated directly to the producers. Without a better legal definition and practical elaboration of their roles, the few structures created in the localities for the purpose of directing the reform, such as local chapters of the federal Land Committee, became de facto conduits for policies of narrow local interests which in some instances supported collective agricultural institutions rather than their designated clients - individual farmers.

Another cause for the shift is path-dependent and started to take shape during the late Soviet period, between mid-70s and late 80s. During this period the distribution of resources continued to be officially guided by plan and command. Unofficially, however, the state, the official owner of all producing entities, was losing its ability to control and appropriate the fruits of production due to asymmetries of information about the true size of costs vs. the size of output. These asymmetries were associated with a rapid increase in the number of enterprises, and were often exacerbated by willful misinterpretations fed
through the chain by local administrators in cooperation with enterprise managers. Control was gradually shifting to sub-national administrative leaders and enterprise managers who had better information about the true state of local economy. In the absence of market pricing, access to resources was determined by a variety of these actors' needs and prominently included the necessity to sustain production on the one hand and the drive to consolidate power through the provision of better access to preferential clients on the other. It is during this period that alliances between local governments and industrial and agricultural managers were formed -- alliances that in many instances were carried over into the post-Soviet period.

What determined the strength and longevity of these alliances and under what circumstances did they manage to remain current and valid in the post-socialist environment? The examples of the two oblasts used in this study have demonstrated the evolution of two divergent patterns of interactions between the oblast administration and the collective farm management. In the Saratov oblast, after a brief period of disengagement in the early 1990-s, the government resumed active participation in the management of collective agriculture. Techniques of administrative control ranged from a prescriptive determination of the use of particular channels for the sale of milk, to the financing and distribution of inputs necessary for seasonal agricultural works, to the determination of prices of agricultural output.
The analysis of institutions on the ground has shown that this encompassing control became possible in a post-Soviet context after the oblast administration invested time and resources into reinventing institutions which allowed for the continuation of centralized sub-national redistribution. These newly created structures differed from their Soviet predecessors in that they had to operate in an environment of nationally liberalized prices and of legally sanctioned ability of privatized collective agricultural producers to search for suppliers and buyers at the market.

The center of the redistribution system in the Saratov agriculture has become the Food Corporation. The oblast government endowed the Corporation with vast legal powers and discretion in the use of public funds. Mechanisms of accountability for the Corporation’s activities were virtually nonexistent. By providing seasonal inputs, primarily fuel, the de facto bankrupt collective agricultural producers, the Corporation made collective producers dependent on its terms of crediting, and forced producers to accept its prices for inputs and output. The controlling position of the Corporation was determined by its superior access to fuel based on tax forgiveness on local taxes provided by the oblast administration in exchange for fuel deliveries to the Corporation. Commodity crediting coordinated by the Corporation also enables the evasion of constraints associated with cash shortages. Thus, a post-Soviet distributor was created.

In the Leningrad oblast, the more industrial and relatively less agriculturally endowed of the two, the local government has been extracting itself from the business of
managing the agricultural production. This study has demonstrated that agricultural producers in Leningrad oblast were pushed by this forced disassociation from familiar controls to search more actively for other sources of inputs and new sales outlets. They also had to restructure their production more aggressively, and to deal with their employees/shareholders on a more rigid and straightforward cash basis.

The selective attractiveness of forming a structure like the Food Corporation is explained through the examination of the benefits local governments, the initiators of post-Soviet redistribution networks accumulate from the exercise. These benefits are then compared to the costs of organizing centrally controlled and coordinated involvement into agricultural production and redistribution at a sub-national level.

Another hypothesis formulated in the beginning of the study stated that the level of benefits local administrations could hope to accrue from interventionism depended on two factors. The first was the agricultural endowment of the oblast. The larger the relative agricultural endowment, measured as the share of agricultural GDP of the oblast, the bigger the expected gain from interventionism. The second factor is the skill set of the oblast ruling elite. The more skilled the oblast elite in socialist-style redistribution of resources, the more it is interested in preserving the validity of its skill set and the less resources it needs to invest into managing such a redistribution.
In line with the stated hypothesis, in Leningrad oblast a low share of agricultural GDP was mirrored by a small number of former Soviet agriculturalists among key legislative and executive figures in the oblast government. The skill mix of the oblast political decision makers did not give them any specific post-Soviet advantages either in terms of coordination of an agricultural redistribution system or in terms of connections and networks among producers and input providers that could diminish the risk and the transactions costs associated with such a coordination. Whereas, in Saratov oblast, the agricultural GDP was more than double the national average and the majority of key positions in the oblast executive and legislative bodies belonged to former Soviet rural elite.

This study demonstrated that the assessment of costs and benefits of reconfiguring Soviet-style redistribution in the post-socialist environment was also associated with one more factor, namely, the particular physical endowments of the oblasts. Saratov oblast is a black soil region and grain is by far the most important crop produced by collective agricultural enterprises. As has been demonstrated, in Soviet times, meat and dairy were the main agricultural outputs of the Leningrad collective farms.

Differences in the nature of agricultural output proved important in determining the dramatic difference in the amount of inputs needed for the annual resumption of production as well as in the application of these inputs.
For meat production, the key inputs are feed, fodder, and fuel. In the cold northeast of Russia heating for sheds is critical as well. Soviet planning created large-scale meat production in the Leningrad oblast because of the necessity to feed the 4 million inhabitants of the city of Leningrad. Collapse of socialist distribution brought about two changes in access to these two critical inputs. Fodder became an import commodity. Not only was there not enough fodder grain produced on the territory of the oblast, but the chief supplier of feed for the Leningrad producers, Belarus, became a separate state.

Another difference between crop production and meat and dairy is the discrete versus continuous need for inputs. Both heating of sheds and feeding of animals are daily necessities, the interruption of which quickly becomes deadly for the herd. Even if the Leningrad administration possessed the necessary redistribution skills in agriculture, they would still be faced with a much more daunting task than that facing the administration of Saratov oblast. The first difficulty would be in organizing the centralized importation of fodder. The presence of the Russia-Belarus border excludes the possibility of tax forgiveness as a payment for deliveries. An effort to reconstitute centralized redistribution would have required either large-scale barter transactions or massive cash outlays. The former requires time-consuming continuous mobilization of resources, and, therefore, substantial skill in Soviet-type redistribution, to say nothing of a focused and powerful political will. In other words, it would have required massive outlays of budgetary resources and human involvement that a sub-national government was not prepared to invest.
The cost of heat for meat and dairy productions would have been much higher as well. Unlike the agricultural producers of the Saratov oblast, who need fuel for grain production only twice a year and who historically held much less cattle, heating the sheds for 10,000 head herds would require massive outlays, much higher than an amount securable through a tax forgiveness to a local oil refinery. The Leningrad oblast government, therefore, opted for an *ad hoc* expedient subsidization of a small number of politically important collective producers without investing into massive new structures that recreated old dependencies and power-based distortions.

On the sales side, the benefits associated with wholesale sales of grain also appear to be much easier to coordinate than the sales of vegetables and dairy, both perishable and retail commodities. While wholesaling meat could be a lucrative business for local governments, the costs of production and coordination outweigh the benefits the administration can receive from market sales.

On the other hand, distribution of a small number of key inputs twice a year, at harvesting and sowing, can be reconstituted to bring a bundle of political and economic benefits to its organizers, the local government. Such a bundle prominently includes the ability to politically and economically control collective agricultural producers and to use the monopolized crops to fulfill its food obligations to budgetary institutions, such as schools, hospitals, prisons, as well as to organize centralized sales outside of the oblast.
Such an arrangement also provides an oblast administration with opportunities to derive benefits from the sales of grain on the markets in Russia and abroad.

The analysis of the reasons for the continuation of the sub-national Soviet style redistribution and of the constraints that are associated with it confirmed another hypothesis, formulated in the beginning of the study, of the importance of low complexity of inputs for the reconstitution of post-socialist redistribution patterns at a sub-national level. The cost of coordination necessary for the preservation of the dominant position in agricultural production by the local government is prohibitively high in cases where the government has to provide multiple inputs continuously. Another complication arises from the inability to offer preferential treatment to suppliers outside of the oblast borders. For a reconstituted post-socialist distribution system to model its predecessor all the main actors need to be controlled by the same entity and the number of these actors needs to be small, so that coordination is within the economic and institutional capacity of local administration.

Understanding the incentives that drove the preservation of interventionist controls in one oblast and the introduction of a laissez-faire environment in the other makes it possible to go down the chain and examine the incentives that drove collective agricultural producers in the two oblasts to modify the organization of their respective collective farms in accordance with oblast-specific constraints.
The Managers and the Managed

The farm-level study revealed that different oblast level policies led to divergent collective farm responses. In the less interventionist Leningrad Oblast, agricultural enterprises (JSCs) undertook more radical restructuring, introducing new lines of production and establishing innovative sales channels. Internally, the JSCs’ managers undertook the difficult task of redefining their relationship with the employees. In some cases the change manifested itself in efforts to create a sense of ownership among the employees, in others the managers had to start firing the redundant force and reduce the level of non-contractual benefits that the employees could obtain from the collective.

In the more interventionist oblast the managers of the JSCs were more constrained both by restrictions placed by the government from the top and by demands for increased support coming from below – from employees. The government was compensating agricultural producers for a higher level of control by guaranteed subsidization and bailouts in time of need regardless of the profitability of the enterprise.

Despite similarities between Soviet and post-Soviet forms of subsidization reconstituted in the interventionist oblast, there are important conceptual and factual differences between the two. One difference is the mode of financing. In the post-socialist period the state is no longer a legal owner of land and other assets and as such is not legally obliged to finance production and distribution. Post-socialist financing also differs

318

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from a hard budget constraint in a market environment in that repayment of previous debt or other indicators of financial viability of an enterprise are not necessary prerequisites for obtaining new credit. Financing the enterprise as well as the demands to repay are fully at the discretion of local government and depends on the political and economic imperatives that it faces in a particular time period.

This type of financing could be best defined as an *elastic* budget constraint. The elasticity of the budget constraint is determined by the intertwined political and economic interests of the dominant actor - the local government. If the government needs political support from an enterprise or if it hopes to compensate crediting outlays with revenue from sales of agricultural output, full repayment is not demanded. However, if the government needs to increase its revenue, the budget constraint is hardened and prompt repayment of the credit, sometimes together with back payments, is required. This fluctuation in financing and in repayment imperatives were observed in Saratov *oblast*.

From the point of view of managers, these measures allow them to delay necessary restructuring and to continue their role as providers of social and economic benefits to their employees. The possibility of large state support in critical times of the year (harvesting and sowing) allows preservation of the chain of resource redistribution from government to employees. The balance sheet analysis demonstrated that in the Leningrad *oblast*, collective agricultural producers in aggregate were much more cost sensitive than
in the Saratov oblast, trying to restructure the production in the direction of lower costs and higher profits much more aggressively than their Saratov counterparts.

Finally, the employees treat the collective producer very differently in the two oblasts. In the Leningrad oblast, employees receive cash wage payments through a primarily contractual relationship with the collective enterprise. The benefits they derive from the association are separable into wage payments and dividends. The latter are explicitly paid out as a share of profits. Increasing clarity and separation of these two types of payments traces the evolution of a kolkhoznik into a salaried employee and an owner of property primarily interested in its profitability. In the Saratov oblast the employees/shareholders are aware of the continuous state involvement in agriculture and try to capitalize on it by pressuring the manager to distribute inputs for their individual production at subsidized prices. While official categories of payments differ (in-kind wage payments, dividends, or a land lease payments), substantively they represent the delivery of subsidized inputs for the individual production of employees/shareholders. Evolution in the direction of increased legal clarity is substituted by unclear arrangements that provide a fused bundle of social and economic benefits.

The household level survey of employees/shareholders of collective enterprises confirmed the hypotheses about the divergent effects of oblast specific paths of restructuring on the channels of compensation available to the employees of collective enterprises. This study revealed that the employees of collective farms in the
interventionist Saratov oblast indeed received a larger share of their payments in-kind. In-kind payments could then be used for private agricultural production, which in turn was either consumed or sold at the market. Such an input distribution scheme is fairly egalitarian, and, therefore, the growth of private agricultural production under this arrangement is limited.

In the Leningrad oblast the employees of JSCs reported that monetized salaries were the main source of income from the JSCs. In some enterprises employees started acting as shareholders and showing interest in the ultimate profitability of the enterprise. The development of a sense of ownership, however, is a slow process and was not observed in all of the studied Leningrad oblast enterprises.

Looking back at the two charts presented in the beginning of this study (Charts 1 and 2, Chapter 1) as models of post-Soviet development of an agricultural firm, it is possible to conclude that the hypotheses about the divergent region-specific paths of evolution of inter-and intra-firm interactions have been proven. This evolution has led to the development of two distinct paradigms of interactions both within the firms and with the outside world. The market-oriented paradigm starts with the government that removed itself from organizational and financial involvement in agriculture, a move that made the enterprises evolve, often begrudgingly, toward profit maximization as their first priority, one superior to their network obligations to the employees or the government. In a post-socialist model a reconstitution of the Soviet-type ties is taking place - ties between the
collective agricultural enterprise and the local government on the one hand and between the collective producer and its employees on the other. What we observe here is a firm-like structure complete with new reproduction technologies that allow administrators and managers to preserve their governance and managerial styles of maximizing political and economic benefits without unbundling the two. In this model profitability is one goal in a bundle that also includes social protection for the employees and the preservation of distributional control for local government.

Field observations and subsequent analysis of post-Soviet transformation of Russian agriculture has also encouraged an examination of broader issues. One issue concerns the choice of a unit of analysis most adequate to the study of institutional transformation in the post-Soviet context. The other is the conceptualization of the role of the described changes in the evolution of the Russian countryside.

Re-framing the Question

The research presented here demonstrates that the restructuring of Russian collective farms is taking place in the context of constraints imposed on the pace and direction of transformations by the political and economic networks that sustain Soviet agricultural production in each locality.
The role of networks in the pace and direction of post-socialist transformation has been studied in a very fruitful way by David Stark.1 In analyzing the role of networks in post-socialist transformations, Stark draws on evolutionary theory and network analysis. Examining the transition of post-socialist organizations, Stark questions the applicability of the premise of the survival of the fittest in economic and institutional contexts: "...evolution cannot simply be regarded as a one-dimensional process of optimization, a beneficent and unilinear journey from the lower to the higher form of organization, from the inferior to the superior. Natural selection does not yield the superlative fittest, only the comparatively and tolerably fit."2 If applied to post-socialist institutional transformation, it follows that at the current transitional stage it is important to allow for the multiplicity of evolving configurations so that the more flexible structures may develop and creatively adapt to the ever-changing environment. Stark's solution for fostering such a multiplicity of outcomes is to allow for a less prescriptive evolution of path-dependent post-socialist institutions. If such a development is substituted by a superimposition of pro-market structures "...purging of organizational legacies to gain allocative efficiency can come at the cost of undermining dynamic efficiency just as a narrow adaptation to a specific economic environment can jeopardize the economy's adaptability."3 The "...variations and mutations emerging from the recombination of the inherited forms with the emerging

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2 Ibid., 4.
3 Ibid., 5.
ones' allow for the variety and diversity within the "genetic pool" of post-socialist organizational evolution.⁴

The idea of richer variance of mutations that follows socialism seems particularly appropriate for this study. In the two oblasts we observed both higher and lower levels of penetration of the market-oriented new growth into the embedded old frames of collectivist production. The interesting question, therefore, is, does the more path-dependent trajectory of a locality allow for more flexible adaptive behavior? There is, however, another question that emerges. In which cases does adaptation leads to evolution? Here, after Clifford Geertz, qualitative value is attached to change, differentiating between evolution and involution.⁵ Involution, according to the definition Geertz borrowed from Alexander Goldenweiser, describes "...those culture patterns which, after having reached what would seem to be a definite form, nonetheless fail either to stabilize or transform themselves into a new pattern but rather continue to develop by becoming incrementally more complicated."⁶ The result of such ever increasing inward looking complexity is

... a variety within uniformity, virtuosity within monotony. This is involution. A parallel instance ... is provided by what is called ornateness in art, as in the late Gothic. basic forms of art have reached finality, the structural features are fixed beyond variation, inventive originality is

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⁴ Ibid., 6.
⁶ Ibid., 81.
exhausted. Still, development goes on. Being hemmed in all sides by a crystallized pattern, it takes
the function of elaborateness. Expansive creativeness having dried up at source, a special kind of
virtuosity takes its place, a sort of technical hairsplitting.7

In the cases studied for this research, the Leningrad oblast and the Saratov oblast, it
appears that the oblast that developed more rigid pro-market constraints, surprisingly,
allowed for more variability, not for higher immediate success of enterprises. It is in the
Leningrad oblast that individual farming has taken root more firmly with the number of
individual farmers increasing annually, while in the Saratov oblast the number of
individual farmers has been decreasing since 1996, despite the higher agricultural
potential of the locality. Yet, in both oblasts creative adaptations to region-specific
political and economic environments were observed. The question, therefore, becomes,
what is the difference not only in the path but also in the quality of adaptations observed
in the two regions and, if these observations permit, what new constraints do these
divergent qualitative and quantitative paths impose on the enterprises that operate within
differently evolving networks?

Discussing the quality of networks that emerge in the post-socialist universe of
interactions, Stark, after Granovetter, comments on the advantage of weak ties as more
environmentally adaptive in comparison to tighter and more rigid couplings. The benefit
of weak ties at a time of large scale institutional transformations is that such networks

adjust more easily to the imperatives of a changing environment, creating overlapping and ambiguous connections which may act as a sort of an “immune system” for the network. If these two approaches are united, the question becomes when does institutional complexity lead to a developmental, evolutionary outcome, and when does complexity become inward looking and result in involution? Stark quotes another author in the volume, Judith Sedaitis who stresses the entrepreneurial qualities of networks as opposed to the entrepreneurial qualities of its individual members. More entrepreneurial networks in turn are composed of weaker ties and allow its members a higher freedom of maneuver. Where does the freedom of maneuver come from? What makes some ties more rigid than others? Stark connects the rigidity of ties to direct contacts that originated in socialist times and are overtly or covertly preserved in the new environment. The path-dependent nature of the contacts is manifested in the ambiguous nature of property rights where the boundary between private and state property remains blurred.

In the empirical study presented here two localities hosted two differently configured networks. In the Leningrad oblast, the strength of post-socialist ties were loosened and the prescriptive rigidity of interactions had been replaced by a more free and independent, search on the part of collective enterprise management for inputs, markets for outputs, financing, and means of compensation for their employees. This path has proven more entrepreneurial, allowing for a more creative variance of outcomes. In Saratov Oblast, ties among collective producers, their buyers, local administration and the

employees remained much more regimented. Path-dependency did not allow for much variability in institutional outcomes. This research ties this lack of freedom of maneuver to the continuation of the top-down controls that the local government continues to impose on collective agricultural production in the oblast. It is not that collective institutions in the Saratov oblast fail to adapt to the new environment. It is that the oblast-specific environment has been modified through the discretion of the local government to preserve the path-dependent dominant position of the latter. Stark and other authors of the volume stress the importance of the entrepreneurial nature of the locality as opposed to the roles of entrepreneurs in the locality. This study shows that the presence/absence of the latter can become manifest only in absence of a regional dominant actor which, in the context of a weak national government modifies the nature of local interactions and the environment itself dictating the type and tenor of the system to its other participants.

Furthermore, this study has shown that a rigid system that continues to be based on strong ties shows signs of creative adaptation. Local government in the Saratov oblast needed to create a powerful Food Corporation to do its bidding and to organize its exchanges, collective farm managers needed to create new forms of interactions with their employees based on in-kind payments variously called wage payments, dividends, or land lease payments. These systems are legally and logistically complex, yet, as I was trying to show in this study, their main goal has been to allow for as much institutional change as is necessary to preserve the rigidity of the hierarchical structure, with the local

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9 Ibid., 13.
government continuing to distribute a fused set of political and economic benefits to client enterprises and client enterprises mirroring the oblast administration in providing a fused set of benefits to its employees. The organizational complexity that exists for the sake of sustaining an inefficient status quo is an instance of institutional involution, a case of a balancing as opposed to a developmental complexity.

In much of Russia, post-Soviet agriculture seems to be mired in an involutionary complexity rather than in a developmental one. Much more study is needed to examine the paths of post-Soviet transformations with this perspective in mind.

Chapter 7 B: Limitations of the Study and Possible Extensions

Before proceeding with the policy implications of the presented findings, it is important to discuss the limitations of this study.

The first limitation comes from the number of oblasts included in the study. Only two out of 89 Russian provinces were included in the study. In deciding on a narrow in-depth study of the two oblasts as opposed to a broad national examination I hoped to discern complex unofficial interactions. Aggregate data on productivity of the JSCs, for example, has been studied by other researchers and, while confirming low productivity of JSCs, these did not explain the nature of interactions that led to their preservation.

10 Ibid., 20.
Another concern is the different agricultural profiles of the two oblasts. As was discussed above, the oblasts were chosen so as to represent opposite ends of the spectrum of agricultural production in European Russia so that institutional differences in the pace of the reform in agriculturally different settings could be assessed. The findings indicated that, indeed, agricultural endowment matters in shaping the incentive structure of local politicians, who, in turn shape the incentive structure for agricultural producers in their jurisdictions. To assess if this difference is systematic, a larger study based on a nationally representative sample would have to be carried out. Anecdotal evidence points to the presence of such a relationship at the national level. For example, the grain belt of Russia is also called “the red belt”, meaning that the majority of grain producing oblasts are run by Communist or pro-Communist governors. On the other hand, the South Western region, part of which is Leningrad oblast, is known to have more pro-reform governments. A more systematic study will allow a mapping of interventionist versus non-interventionist agricultural policies at the provincial level, ascertain if they are crop-specific or not and, importantly, allow the use of differentiated policy tools in further reform implementation. As was discussed above, tracing the causality between the policies and agricultural endowment will be very difficult even for a national sample, as, at this point in history, it could go ways.

Another important extension of this study is the examination of the oblast-specific environment in which individual farmers operate. Are they excluded from state-run
networks? Do they operate in cash or in-kind, as the JSCs do? Do the relationships that develop allow for more entrepreneurship and evolution or for more balanced and inward-looking complexity? A more in-depth analysis of the dynamics of change will allow for an exploration of these vital developmental questions in more detail.

A recent survey of 200 individual farmers in three districts of SO – all the individual farmers in the three districts – has been just completed. Data analysis will concentrate on the comparison of self-reported sales and input procurement channels used by individual farmers to those used by collective producers as well on input prices and transactions costs faced by these two types of producers. A similar survey has been planned in LO.

Chapter 7C: Policy Implications

Policy implications of official and unofficial interactions within Russian agriculture and the implications of the outcomes of these interactions can be divided into two categories. The first includes the policy actions that can be carried out by the Russian government provided the Russian government re-examines agricultural policies. The second category concerns assistance to Russian rural restructuring that can be provided by external donors if Russian agricultural policies remained unchanged.

This research demonstrated that top-down legislation that reassigns ownership of agricultural land and property does not lead to equivalent changes in resource distribution.
on the ground. The deep-rooted path-dependent incentives combined with new opportunities for gain may, under certain circumstances, lead to the recreation of the old patterns – an outcome opposite to the one desired or expected by the reformers.

To secure reform implementation, the national government needs to introduce a national pro-reform discussion. Concentration of interest around certain issues will make it possible to gauge the type of interest groups that promote different outcomes in the reform process. This and other measures are needed to increase the government’s awareness of the reform-related discourse as it exists at the sub-national level. If a more extensive investigation demonstrates that agricultural policies have been reinterpreted to mean different levels of interventionism in different oblasts then the government should realistically assess, first, its ability to create channels for reform implementation, and, second, its ability to create counter-incentives to make true implementation of reform a possibility. Short of such thorough bottom-up mobilization, effective government led progress of agricultural reform is a very uncertain proposition.

Within the existing framework, the government should strengthen the mission and mandate of institutions responsible for reform implementation. Control over the operations of these institutions should be increased as well. The role of Land Committees as representatives of the interests of individual farmers should be redefined. Specifically, their operation should be made more transparent by creating an oversight body consisting of representatives of civil society as well as government officials. Information about the
activities of Land Committees and their interactions with all types of producers should be made public knowledge. Information about operations of Land Committees should be made regularly available to the provincial and national government for regular thorough examinations and policy adjustments.

Another national level institution and the one that has served to preserve post-Soviet distribution patterns is the Federal Food Corporation. As was reported, in 1997 its role was curtailed. However, under the Primakov and the current Russian governments state procurement has increased. This is a troubling sign, considering that non-market distribution is most likely to lead to a broad-based reintroduction of Soviet patterns of redistribution and non-market crediting of large agricultural producers.

The increased importance in some of the oblasts of the Oblast Food Corporation is another anti-reform development. However, since CCs distributed by the Corporation are used indirectly to provide for the needs of employees of the JSCs, elimination of Food Corporations at the oblast level cannot be carried out as a stand-alone exercise. It must be combined with the reform of the provision of social services by local governments to the rural community.

Another related issue is the implementation of sub-national government reform, one that would reorient local governments toward service provisions as opposed to
participation in agricultural production. Such a reform would require a realignment of incentives for the local government that goes beyond the scope of this research.

All these actions require a mobilization of political will by the national government. If such mobilization is not forthcoming, external donors and advisors need to adjust their advice and distribution of resources to the true realities of sub-national rural interactions.

The approach based on the logic of maximization of returns on investment dictates that support to agricultural reform should concentrate on the regions that are better endowed agriculturally. In the post-Soviet Russian context, however, it becomes important to differentiate between support to agriculture and support to agricultural reform. If the goal is higher returns, then involvement with a better endowed region under specially negotiated conditions of government non-interference may indeed be a desired course of action. However, if the goal is more reform, a careful advance examination of the level of the oblast government involvement in agricultural decision making and financing is called for. Careful examination of the local government incentives will help determine first, whether it is in the interest of local government to promote reform or support old patterns of financial dependency of agricultural producers and, second, what benefits the provincial government expects to receive from the preservation of old patterns.
The next step is to assess whether the resources a donor or a project is capable of mobilizing are sufficient to create a credible counter-incentive to the existing incentive structure. Provided that projects are usually shorter lived than the perceived potential of extracting resources from sustaining non-market distribution, it is highly unlikely that a regional project will be able to succeed in significantly altering incentive structure in such an environment. It may be advisable, therefore, to concentrate support and scarce resources on those oblasts that have given up direct involvement in agricultural production. In such oblasts the marginal social and long-term economic value of an investment is likely to be much higher as the funds and technical assistance are more likely to be spent on strengthening rural market development rather than on the oblast-level agricultural elite.

Finally, there is a national level project that foreign governments are currently involved in and which undermines Russian agricultural producers and reinforces distribution vs. market environment. This project is Food Aid.

Food Aid was accepted by the Russian government in 1998 and 1999, and there is talk of increased aid in the year 2000. This benign-sounding program was initiated by US and European governments as a response to reports of draughts and poor grain harvests. However, as was later recalculated, harvests were underreported by producers. Yet the aid was accepted and distributed. As was discussed previously, aid distribution brings federal government back into resource distributing modality, something the federal government
has not been involved in since the early 1990s. The danger of such an arrangement is to delay reform implementation without increasing food security, an important issue that needs to be discussed and acted upon before the new round of grain aid has been shipped into the country.

All these measures mean acting through the Russian governments at different levels. However, as this study demonstrates, agricultural problems and incentive structures in agriculture importantly affect rural communities. In the studied districts, and reportedly in other Russian provinces, rural communities act as recipients of policies rather than their initiators. Post-socialist legacy is the dependence of communities on vertical ties to the production unit and then to the government rather, not horizontal ties within the community that could allow for resource mobilization outside of the government-agricultural producer framework.

Given the weakness of horizontal relations within the communities, international donors need to concentrate on helping communities strengthen these ties. Strengthened communities, it is hoped, will be able to react critically to top-down policies generated by the government as well as hold the government accountable for the support or rejection of the proposed policies.

Community development projects have been launched in a number of post-socialist countries. Projects carried out in Romania, for example, another country with a
totalitarian past, demonstrate that in more successful cases sufficient trust can be built within the community to mobilize resources in a new way. Communities learn to become more equal partners in state – citizen interactions, not just passive recipients of state policies. It is this bottom-up development that has been lacking in Russia. It may turn out that small projects in a big country will bring more and more tangible results than big national level projects that do not affect the incentive structure and resource distribution.

All these policy initiatives need to take into account the uneven distribution of agricultural reforms in the country. The reason for this uneven distribution is the outcome of different stages of transition the Russian countryside is going through. Here some reasons behind this unevenness were uncovered. More research is needed to fully understand the effects of socialist legacies on current reform implementation. Hopefully, better understanding will lead to increasingly better advice that could in turn successfully guide the next generation of reform-minded Russian policy makers.
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Engelsk Raion, Saratov Oblast:

Adol'mishin, Nikolai
Bogosar'an, Amvar
Chernich, Vladimir
Dal’, Grigorii
Izmailov, Kisim, Private Bakery
Losev, Andrei, Head of the raion Association of Private Farmers (AKKOR)
Nikonov, Aleksander
Shigajev, Farid
Zhilaulov, Ibragim
Vsevolozhsk Raion, Leningrad Oblast:

Aver'janov, Victor
Aver'janova, Elena
Bakhtiarov, Grigori, Head of raion Association of Private Farmers (AKKOR)
Blockaya, Tamara
Cvetkov, Aleksandr
Feoktistov, Michail
Grigor'ev, Nikolai
Gunt, Grigori
Karkinen, Konstantin
Koval'ev, Viktor
Ksenofontov, Nikolai Ivanovich
Lopatin, Mikhail
Pletnev, Mikhail
Podgornii, Nikolai
Punt, Ingmar
Satin, Valerii
Sen'kov, Georgii
Vorobiev, Aleksei


Engelsk Raion, Saratov Oblast:

Kireev, Nikolai Ivanovich, Director, JSC "Pribreznoe"
Lukjanov, Nikolai Nikolaevich, Director, JSC "General'skoe",
Mikheev, Aleksandr Fedorovich, Director, JSC "Berezovskoe"
Petlin, Yuriy Nikolaevich, Director, JSC, "Leninskoe"
Rodin, Anatolii Petrovich, Director, JSC "Zavetnoe"
Trofimov, Anatolii Vasil'evich, Director, JSC "Okt'abrskoe"

Vsevolozhsk Raion, Leningrad Oblast:

Belajev, Sergei Vladimirovich, Director, JSC "Romanovka"
Golokhvastov, Yuriy Ivanovich, Director, JSC "Primevskoe"
Ivanova, Vera Viktorovna, Chief Accountant, JSC "Scheglovo"
Lal'chenko, Aleksandr Andreevich, Director, JSC "Bugri"
Matisev, Aleksandr Egorovich, Deputy Director, JSC "Avloga"
Minajev, Vladimir Alekseevich, Director, JSC "Sputnik"
Mitenev, Igor' Leonidovich, Director, JSC "Viborgskii"
Shavarov, V'acheslav Viktorovich, Director, JSC "Vsevolozhskoe"
Trafimov, Alexandr Grigor'evich, Director General, JSC "Ruch'i"
Federal and Regional Legal Documents


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11 All Russian Federation references unless otherwise noted. Unless otherwise noted, the source is website of Ministerstvo Sel'skogo Khoz'iaistva i Prodoval'stvia Rossiiskoi Federacii [Ministry of Food and Agriculture of the Russian Federation] (accessed March 2000); available from http://www.aris.ru/N/WIN_R/ONAS/T6/POSTAN/doc_98.html.


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Appendix 1: The Meanings of the Terms *Kolkhozy* and *Sovkhozy* in the USSR and Their Modification over Time

*Kolkhozy*, or collective farms, were first organized in 1918. *Kolkhozy* were created by consolidating individual land holdings (*nadely*) into collectively farmed fields. The land was legally owned by the state and was leased to *kolkhozy* for permanent use. Each family had the right to a small private plot usually adjacent to the house, the size of which was regulated by decrees. Over time, the legally allowed size of the plot was growing smaller, from 0.5-0.25 hectares according to the regulations of the 20s to 0.1 hectares by the 70s. As of mid 80s officially sanctioned size of individual plot started to grow again. According to the regulations of 1935 a household was allowed to keep one cow, two heifers or calves, one pig with piglets and four sheep, some poultry. Equipment and larger herds were collectively owned by the *kolkhoz* members.

Personally, *kolkhoz* members were *de facto* bonded to the *kolkhoz*. Until 1976 *kolkhoz* members were denied internal passports, which effectively restricted their ability to leave the *kolkhoz*. The payment structure tied the employees to the *kolkhoz* yet further, since, according to the regulations, cash earnings of a *kolkhoz* were to be applied first to the investment fund, then to the purchase of parts and equipment. The remaining funds were allowed to be distributed among the *kolkhoz* members. This meant that the *kolkhoz* employees were often paid in kind once a year, with cash earnings being an exception.

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12 Unless noted otherwise, information on the *kolkhozy* and *sovkhozy* is based on Zhores Medvedev, *Soviet Agriculture* (New York: Norton, 1987).
rather than the rule. In the 50s a system of advance payments, consisting of a cash and an in-kind component was introduced. The payment was inadequate for subsistence and theft of inputs and output from the kolkhoz continued.

In terms of its role as an agricultural producer, after the forced collectivization of the early 30s a kolkhoz became the major production unit of Soviet agriculture. The primary obligation of a kolkhoz was to deliver agricultural output to the state according to the production plan. If a kolkhoz was incapable of carrying out its obligations and could not provide itself with seed after it delivered towards state procurement, the state provided it with the necessary inputs as loans against next year deliveries. Dependence on the state was exacerbated by low state procurement prices for agricultural output, which were ideologically motivated and had little association with the cost of production. As the result, the majority of the kolkhozy were permanently indebted to the state.

The state was ambiguous about massive subsidization of kolkhozy, as kolkhozy were legally considered to be cooperatives belonging to their members. In the 50s many of the kolkhozy were transformed into sovkhozy, an abbreviation which means “Soviet farms”, an enterprise belonging to the state where peasants serve as employees. The legal transformation took place without a formal consent of the kolkhoz member meeting.

The transformation did not give the new sovkhoz employees equal rights with urban workers since they still did not have internal passports and were restricted in their ability
to leave the sovkhoz. As state employees they were entitled to smaller private plots, and to small monthly wages.

Sovkhozy were originally organized on the basis of large estates which before the Revolution belonged to the landed gentry and were first meant to become producers of specialized crops and grounds for agricultural innovation and progress. In the language of the Communist party leaders this meant mechanization and the closest possible approximation to industrial modes of organization. Gross mismanagement and skewed incentives did not allow these plans to materialize. Starting with the 50s and throughout the life of the Soviet system kolkhozy started to be agglomerated into larger sovkhozy. Those in turn were made part of an increasingly more costly and less efficient agro-industrial complex controlled by a number of poorly coordinated ministries.

In the 80s both sovkhoz and kolkhoz were allowed to introduce additional monetary incentives to more productive brigades. The difference between sovkhozy and kolkhozy effectively disappeared.
Appendix 2: Social and Professional Profiles of Households in the Survey:

In the Saratov oblast, 96 households in 12 different farms were interviewed. On average, each household has 4 people, including 1 child younger than 16. Every five households have a pensioner. In this sample, the total number of children in the Saratov oblast is 95, and the number of pensioners is 17. In the Leningrad oblast, 89 households in 10 different farms were interviewed. The average size for a typical household is slightly over 3 (3.239) members, and 70 percent of households has a child younger than 16. Altogether 62 children and 3 pensioners form part of households in the Leningrad oblast sample.

One major respondent is interviewed in each household. Among the 96 respondents in Saratov, there are 49 female respondents with 40 of them married and 9 single. 46 male respondents are married and only 1 is single. In the Leningrad oblast 65 major respondents are female with 45 married and 20 single. Among male respondents, 20 are married and 4 are single.

Major respondents and their spouse, if there is one, were asked about their age and educational level. Men in Saratov are on average close to 45 years old, with the youngest 23 and the oldest 60. Average age of women is 41, with the youngest 18 and the oldest 60. It's interesting to note that women are better educated than men in Saratov. A higher percentage of women have secondary special education, while most men have secondary
high school education. Respondents in the Leningrad oblast are on average older and better educated than their counterparts in Saratov, with men 48 years old and women 46 years old. The oldest men in Leningrad is 68, and the oldest women is 70. The youngest men and women in Leningrad are 28 and 21 respectively. Like in Saratov, women are better educated than men. But an average woman in both Saratov and Leningrad oblasts did not receive any college education.

The average time a major respondent and his/her spouse worked at the JSC is above 10 years. Saratov men have worked at the JSC longer, close to 16 years. The difference in time spent on the JSC is significantly larger in Leningrad, with men working 11 years and women working almost 18 years. In Saratov, of 75 male respondents or spouses of major respondents work at the JSC. Out of this number, 43 were previously employed by another employer. 76 female respondents or spouses of main respondents work at the JSC with 40 having previous employment experience with another employer. In the Leningrad oblast, 27 out of 40 males had worked for a another employer previous to their current employment at the JSC, and 47 out of 75 females had previous employment experience with another employer.

Professionally, in both oblasts more women work as specialists or livestock workers than men (49 female specialists compared to 22 males, 50 female livestock workers compared to 30 males). In Leningrad, the majority of crop workers are females (25 females compared to 2 males). Men work more as machine operators in both oblasts.

355
35 people in 96 households in Saratov and 47 people in 89 households at Leningrad are working outside the JSC. The ratio of number of people in a household working outside the JSC to the household size is 0.099 and 0.164 in Saratov and Leningrad respectively. This profile indicates that the Leningrad oblast households are less attached to JSC than the Saratov oblast households.
Appendix 3: Questionnaire for the Employees/Shareholders of Collective Agricultural Enterprises, Vsevolozhskii Rajon, Leningrad Oblast, Engels Rajon, Saratov Oblast

Questionnaire
Subsidiary Household Production of Farm-employee Households
Vsevolozhsk Raion, Leningrad Oblast
Engels Raion, Saratov Oblast

Questionnaire number

Agricultural enterprise

Village

Date

Interviewer

English Translation Version

March 2001
1. HOUSEHOLD

1.1. Household characteristics

<table>
<thead>
<tr>
<th>Resp.</th>
<th>Household member</th>
<th>Age (full years)</th>
<th>Educational level*</th>
<th>Number of years working at farm</th>
<th>Position in farm**</th>
<th>Other place of work/employment of family members not working at farm</th>
<th>Previous employment before joining the farm***</th>
<th>Years of employment at farm (full years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(Man)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>(Woman)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other members over 16 years old:**

3.  
4.  
5.  

**Children (under 16):**

6.  
7.  
8.  
9.  

---

3*Education

<table>
<thead>
<tr>
<th>Code</th>
<th>5**Position in JSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Specialist</td>
</tr>
<tr>
<td>2</td>
<td>Mechanic</td>
</tr>
<tr>
<td>3</td>
<td>Worker in livestock sector</td>
</tr>
<tr>
<td>4</td>
<td>Worker in crop sector</td>
</tr>
<tr>
<td>5</td>
<td>Worker in social sector</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
</tr>
</tbody>
</table>
6 & 7 *** Secondary employment and employment of family members not working at the farm

<table>
<thead>
<tr>
<th>Other collective farm enterprise</th>
<th>1</th>
<th>Housekeeper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual enterprise in agriculture</td>
<td>2</td>
<td>Pensioners previously employed at JSC</td>
</tr>
<tr>
<td>State enterprise in social sphere</td>
<td>3</td>
<td>Pensioner not previously employed at JSC</td>
</tr>
<tr>
<td>Government</td>
<td>4</td>
<td>Student / scholar</td>
</tr>
<tr>
<td>Industry</td>
<td>5</td>
<td>Temporary unemployed</td>
</tr>
<tr>
<td>Commerce and trade</td>
<td>6</td>
<td>Other</td>
</tr>
</tbody>
</table>

1.2. Have your parents been members of the farm (sovkhoz or kolkhoz)?
Yes 1  No 2

1.3. Where do you live?
City (St. Petersburg, Vsevolozhk, Saratov or Engels) 1
Town - adjacent to the farm (within radius of 5 km*) 2
Town - farther from farm (over 5 km*) 3
Village – adjacent to farm (within radius of 5 km*) 4
Village – farther from farm (over 5 km*) 5
Other 6

* estimated distance from house to farm administration
2. LAND

2.1. General Questions:

2.1.1. How many land plots does your household have in use (number)?

2.1.2. What is the total area of land plots in use (100 square meters)?

2.1.3. Give the number of land plots per category (number)

<table>
<thead>
<tr>
<th>Land strips</th>
<th>Household plots*</th>
<th>Vegetable gardens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garden plots</td>
<td>Hay fields</td>
<td>Other</td>
</tr>
</tbody>
</table>

*plot in ownership or lifetime use.

2.1.4. Give the area of these land plots per category (100 square meters)

<table>
<thead>
<tr>
<th>Land strips</th>
<th>Household plots*</th>
<th>Vegetable gardens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garden plots</td>
<td>Hay fields</td>
<td>Other</td>
</tr>
</tbody>
</table>

*plot in ownership or lifetime use.

2.1.5. For what period did you receive the land plot in use?

<table>
<thead>
<tr>
<th>Category of plot</th>
<th>Lifetime</th>
<th>&gt;10 year</th>
<th>5-10 year</th>
<th>1-5 year</th>
<th>Year or less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household plots*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetable gardens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garden plots</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land strips</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hay fields</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.1.6. Who do you pay for the use of the plot?

JSC - 1  Village administration - 2  Other - 3  Do not pay - 4

2.1.7. Do you pay taxes over the use of the land?

Yes  1  No  2

If no, go to 2.1.9

2.1.8. How much tax do you pay per category of land plot?

<table>
<thead>
<tr>
<th>Land strips</th>
<th>Household plots*</th>
<th>Vegetable gardens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garden plots</td>
<td>Hay fields</td>
<td>Other</td>
</tr>
</tbody>
</table>

TOTAL PAYMENT

*plot in ownership or lifetime use.

2.1.9. Does the JSC pay the tax instead?

Yes  1  Not  2  Don’t know 3

2.2. Questions about land plots per category of plot:
### 2.2.1. Land strips

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who decides on the distribution of these plots?</td>
<td>Shareholders’ meeting, Farm manager, Local administration, Other way, Don’t know</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>What is the underlying principle for distribution?</td>
<td>The years of employment at the farm, By individual application, Fixed area per farm worker, Fixed area dependent on size of family, Other</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Has size of the land plot changed during the last three years?</td>
<td>Decrease, Increase, No change</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>Has the number of plots changed during the last three years?</td>
<td>Decrease, Increase, No change</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>Do you pay for the use of the land plot? – If yes how much?</td>
<td>Yes (rub/100 sq. meter), No</td>
<td>1, 2</td>
</tr>
<tr>
<td>Do you pay other than cash means for the use of the land plot?</td>
<td>Yes, No</td>
<td>1, 2</td>
</tr>
<tr>
<td>If yes, what do you pay?</td>
<td>In-kind, In-services, Other</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>Does the farm help with the cultivation of the land plots?</td>
<td>Yes, No</td>
<td>1, 2</td>
</tr>
<tr>
<td>If yes, how much would it cost to have the service done by someone else?</td>
<td>Would be more expensive, Would be cheaper, Cost would be the same, Would do it myself</td>
<td>1, 2, 3, 4</td>
</tr>
</tbody>
</table>
### 2.2.2. Household plots

#### 2.2.2.1 Who decides on the distribution of these plots?
- Shareholders’ meeting: 1
- Farm manager: 2
- Local administration: 3
- Other way: 4
- Don’t know: 5

#### 2.2.2.2 What is the underlying principle for distribution?
- The years of employment at the farm: 1
- By individual application: 2
- Fixed area per farm worker: 3
- Fixed area dependent on size of family: 4
- Other: 5

#### 2.2.2.3 Has size of the land plot changed during the last three years?
- Decrease: 1
- Increase: 2
- No change: 3

#### 2.2.2.4 Has the number of plots changed during the last three years?
- Decrease: 1
- Increase: 2
- No change: 3

#### 2.2.2.5 Do you pay for the use of the land plot? – If yes how much?
- Yes: 1
  - (rub/100 sq. meter)
- No: 2

#### 2.2.2.6 Do you pay other than cash means for the use of the land plot?
- Yes: 1
- No: 2

#### 2.2.2.7 If yes, what do you pay?
- In-kind
  - % harvest: 1
  - kilogram vegetables: 2
- In-services: 3
- Other: 4

#### 2.2.2.8 Does the farm help with the cultivation of the land plots?
- Yes: 1
- No: 2

#### 2.2.2.9 If yes, how much would it cost to have the service done by someone else?
- Would be more expensive: 1
- Would be cheaper: 2
- Cost would be the same: 2
- Would do it myself: 4
2.2.3. Vegetable gardens

2.2.3.1 Who decides on the distribution of these plots?
- Shareholders’ meeting
- Farm manager
- Local administration
- Other way
- Don’t know

2.2.3.2 What is the underlying principle for distribution?
- The years of employment at the farm
- By individual application
- Fixed area per farm worker
- Fixed area dependent on size of family
- Other

2.2.3.3 Has size of the land plot changed during the last three years?
- Decrease
- Increase
- No change

2.2.3.4 Has the number of plots changed during the last three years
- Decrease
- Increase
- No change

2.2.3.5 Do you pay for the use of the land plot? – If yes how much?
- Yes
  - (_____rub/100 sq. meter)
- No

2.2.3.6 Do you pay other than cash means for the use of the land plot?
- Yes
- No

2.2.3.7 If yes, what do you pay?
- In-kind
  - % harvest
  - kilogram vegetables
- In-services
- Other

2.2.3.8 Does the farm help with the cultivation of the land plots?
- Yes
- No

2.2.3.9 If yes, how much would it cost to have the service done by someone else?
- Would be more expensive
- Would be cheaper
- Cost would be the same
- Would do it myself
### 2.2.4. Garden plots

#### 2.2.4.1 Who decides on the distribution of these plots?
- Shareholders’ meeting 1
- Farm manager 2
- Local administration 3
- Other way 4
- Don’t know 5

#### 2.2.4.2 What is the underlying principle for distribution?
- The years of employment at the farm 1
- By individual application 2
- Fixed area per farm worker 3
- Fixed area dependent on size of family 4
- Other 5

#### 2.2.4.3 Has size of the land plot changed during the last three years?
- Decrease 1
- Increase 2
- No change 3

#### 2.2.4.4 Has the number of plots changed during the last three years?
- Decrease 1
- Increase 2
- No change 3

#### 2.2.4.5 Do you pay for the use of the land plot? - If yes how much?
- Yes 1
  - (rub/100 sq. meter)
- No 2

#### 2.2.4.6 Do you pay other than cash means for the use of the land plot?
- Yes 1
- No 2

#### 2.2.4.7 If yes, what do you pay?
- In-kind 1
  - % harvest
- In-services 3
  - kilogram vegetables
- Other 4

#### 2.2.4.8 Does the farm help with the cultivation of the land plots?
- Yes 1
- No 2

#### 2.2.4.9 If yes, how much would it cost to have the service done by someone else?
- Would be more expensive 1
- Would be cheaper 2
- Cost would be the same 2
- Would do it myself 4
### 2.2.5. Grassland

<table>
<thead>
<tr>
<th>2.2.5.1. Where do you graze your cattle?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not have cattle</td>
</tr>
<tr>
<td>Land in ownership/use</td>
</tr>
<tr>
<td>Land of a private land owner</td>
</tr>
<tr>
<td>Land of the local administration</td>
</tr>
<tr>
<td>Land of the farm enterprise</td>
</tr>
<tr>
<td>Land of another land owner (specify)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2.5.2. Do you pay for grazing your cattle?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2.5.7. If yes, what do you pay?</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-kind</td>
</tr>
<tr>
<td>% harvest</td>
</tr>
<tr>
<td>kilogram vegetables</td>
</tr>
<tr>
<td>In-services</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2.5.4. Who herds the cattle?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The farm enterprise’s residents</td>
</tr>
<tr>
<td>A herdsman paid by the farm enterprise</td>
</tr>
<tr>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2.5.5. Do you make hay for winter?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2.5.6. If yes, where do you usually make hay?</th>
</tr>
</thead>
<tbody>
<tr>
<td>From own land</td>
</tr>
<tr>
<td>From the land of another private owner</td>
</tr>
<tr>
<td>Land of the local administration</td>
</tr>
<tr>
<td>Land of the farm enterprise</td>
</tr>
<tr>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2.5.7. Do you pay for the use of hay land?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2.5.8. If yes, how much do you pay?</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-kind</td>
</tr>
<tr>
<td>% harvest</td>
</tr>
<tr>
<td>kilogram vegetables</td>
</tr>
<tr>
<td>In-services</td>
</tr>
</tbody>
</table>

365
2.2.6. Land Shares

2.2.6.1. How many land shares does your family hold? _______

2.2.6.2. What is the total area of these land shares? ______ ha
   - Average size a land share ______ ha

2.2.6.3. Did you receive a certificate for these land shares?
   Yes 1  No 2

2.2.6.4. Have your shares been delineated?
   On a map 1  Value-in-kind 2  No 3

2.2.6.5. Are you leasing out your land share?
   Yes 1  No 2

2.2.6.6. If yes, how many shares are you leasing out (number)?_____

2.2.6.7. Whom are you leasing land shares?
   Farm enterprise 1  Individual farmer 2  Neighbor 3  Relatives 4  Other 5

2.2.6.8. Does the farm enterprise pay for the land lease?
   Yes 1  No 2

2.2.6.9. If yes, in what form does the farm enterprise pay for the lease and, how much?
   Cash 1  ______ rub/ha/year
   In-kind 2  ______ % harvest
   3  ______ kg vegetables
   Services 4  (which service)
   Other 5  (what)

2.2.6.10. Do the other leaseholders pay for the lease of the land shares?

<table>
<thead>
<tr>
<th></th>
<th>A. Individual farmer</th>
<th>B. Neighbor</th>
<th>C. Relative</th>
<th>D. Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>=1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>=2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2.6.11. If yes, what form of payment and how much?

<table>
<thead>
<tr>
<th>Payment type</th>
<th>A. Individual farmer</th>
<th>B. Neighbor</th>
<th>C. Relative</th>
<th>D. Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash (rub./ha/year)</td>
<td>% of harvest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-kind</td>
<td>Kg vegetables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Why don’t you leave the farm enterprise with your land share and establish an individual? (give up to 2 main reasons from each category)

A. Legal issues
The law prohibits exit 1
The farm’s charter prohibits exit from the farm 2
The farm administration does not allow us to leave the farm taking the land 3
Other (specify) 4

B. Organizational issues
No access to equipment 1
No access to fuel, fertilizer, seed and fodder 2
Impossible to pay for services (e.g. veterinary services) 3
JSC performs better than I could possibly do 4
The land size is not enough for a profitable business 5
Other (specify) 6

C. Personal
Do not want to have anything to do with the state (tax inspectors, land committee) 1
Want to stay within the farm enterprise 2
Do not have the enough experience of independent business 3
Do not want to change work style 4
Other 5

2.2.6.13. Are you planning to exit within three years?
Yes 1
No 2

2.2.6.14. What should change, in order to exit the farm enterprise taking the land shares? (choose the three most important conditions)
The prices should be stable 1
The tax burden should decrease 2
The state should not interference (inspections, taxes) in ind. farmers’ businesses 3
I should be able to acquire fuel, seed, fertilizer etc. without the support of the JSC 4
I should be able to lease machinery elsewhere than from the JSC 5
I should be able to get loans elsewhere than from the JSC 6
I would not want to exit, even if conditions would change 7
Other 8
3. MANAGEMENT OF THE FARM ENTERPRISE

Production

3.1 Who in practice takes the decisions at the farm enterprise on issues concerning production (investment, crops to be sown, etc.)?

- Farm administration: 1
- Farm administration and shareholders’ meeting: 2
- Shareholders’ meeting: 3
- Other: 4
- Don’t know: 5

3.2 Has the influence of shareholders over the last 3 years changed?

<table>
<thead>
<tr>
<th>Increased</th>
<th>Decreased</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Employment

3.3 Who in practice takes the decisions at the farm enterprise on issues concerning employment (hiring and firing)?

- Farm administration: 1
- Farm administration and shareholders’ meeting: 2
- Shareholders’ meeting: 3
- Other: 4
- Don’t know: 5

3.4 Has the influence of shareholders over the last 3 years changed?

<table>
<thead>
<tr>
<th>Increased</th>
<th>Decreased</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Service provision

3.5 Who in practice takes the decisions at the farm enterprise on issues concerning service provision to employees (e.g. ploughing of plots)?

- Farm administration: 1
- Farm administration and shareholders’ meeting: 2
- Shareholders’ meeting: 3
- Other: 4
- Don’t know: 5

3.6 Has the influence of shareholders over the last 3 years changed?

<table>
<thead>
<tr>
<th>Increased</th>
<th>Decreased</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Payments to workers

3.7 Who in practice takes the decisions at the farm enterprise on issues concerning dividend, lease, wage and other payments to workers?

- Farm administration: 1
- Farm administration and shareholders’ meeting: 2
- Shareholders’ meeting: 3
- Other: 4
- Don’t know: 5

3.4 Has the influence of shareholders over the last 3 years changed?

<table>
<thead>
<tr>
<th>Increased</th>
<th>Decreased</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
4. SUBSIDIARY HOUSEHOLD PRODUCTION

4.1. Crop production

4.1.1. What crops do you cultivate?

<table>
<thead>
<tr>
<th>No.</th>
<th>Crop</th>
<th>Area, 100 square meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Potatoes</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Open ground vegetables</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cabbages</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Carrots</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Beets</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Greenhouse vegetables (m²)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cucumbers</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Tomatoes</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Peppers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Grains (specify)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Fruits and berries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water melons</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Melons (other)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Berries</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Grass for hay and green fodder</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>

4.1.2. What is your average annual production?

<table>
<thead>
<tr>
<th>No.</th>
<th>Crop</th>
<th>Tsentners (100kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Potatoes</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Open ground vegetables</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cabbages</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Carrots</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Beets</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Greenhouse vegetables (m²)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cucumbers</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Tomatoes</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Peppers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Grains (specify)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Fruits and berries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water melons</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Melons (other)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Berries</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Grass for hay and green fodder</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>
4.1.3. How has your crop production changed over the past three years?

<table>
<thead>
<tr>
<th></th>
<th>Increased 1</th>
<th>Decreased 2</th>
<th>No change 3</th>
</tr>
</thead>
</table>

4.1.4. If changed, how come?

- Weather 1
- Economy 2
- Other 3

4.2. Livestock production

4.2.1. What livestock do you have?

<table>
<thead>
<tr>
<th>No.</th>
<th>Animal</th>
<th>Heads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cows</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Bulls</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Young cattle</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Pigs</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Chicken and other fowls</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Other (specify; for example, rabbits, bee-families..)</td>
<td></td>
</tr>
</tbody>
</table>

4.2.2. What is last year’s livestock production?

<table>
<thead>
<tr>
<th>No.</th>
<th>Animal</th>
<th>unit</th>
<th>quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Milk</td>
<td>Litter/day</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Dairy products</td>
<td>Kg/month</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sour cream (sметана)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cream (сливкі)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Butter</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Meat</td>
<td>Kg/year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Beef and veal</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pork</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Eggs</td>
<td>Eggs/week</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Animals</td>
<td>Heads/ year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Piglets</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calves</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cows</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pigs</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chicks</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2.3. How has your crop production changed over the past three years?

<table>
<thead>
<tr>
<th></th>
<th>Increased 1</th>
<th>Decreased 2</th>
<th>No change 3</th>
</tr>
</thead>
</table>

370
4.2.4. If changed, how come?

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather</td>
<td>1</td>
</tr>
<tr>
<td>Economy</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
</tbody>
</table>
5. FARM EQUIPMENT

5.1. Available equipment and buildings

5.1.1. What equipment and buildings does your family have?

None 1
If none, go to 6.1

<table>
<thead>
<tr>
<th>Equipment</th>
<th>amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td>2</td>
</tr>
<tr>
<td>Car</td>
<td>3</td>
</tr>
<tr>
<td>Barn / shed</td>
<td>4</td>
</tr>
<tr>
<td>Draft animal</td>
<td>5</td>
</tr>
<tr>
<td>Truck</td>
<td>6</td>
</tr>
<tr>
<td>Equipment*</td>
<td>7</td>
</tr>
<tr>
<td>Plough</td>
<td>7a</td>
</tr>
<tr>
<td>Harrow</td>
<td>7b</td>
</tr>
<tr>
<td>Feed-cutter</td>
<td>7c</td>
</tr>
<tr>
<td>Mower</td>
<td>7d</td>
</tr>
<tr>
<td>Other</td>
<td>7e</td>
</tr>
<tr>
<td>Cellar</td>
<td>8</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>9</td>
</tr>
</tbody>
</table>

5.1.2. What year did you acquire the equipment or building?

<table>
<thead>
<tr>
<th>Equipment</th>
<th>year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>Barn / shed</td>
<td></td>
</tr>
<tr>
<td>Draft animal</td>
<td></td>
</tr>
<tr>
<td>Truck</td>
<td></td>
</tr>
<tr>
<td>Equipment*</td>
<td></td>
</tr>
<tr>
<td>Plough</td>
<td></td>
</tr>
<tr>
<td>Harrow</td>
<td></td>
</tr>
<tr>
<td>Feed-cutter</td>
<td></td>
</tr>
<tr>
<td>Mower</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Cellar</td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>

5.1.3. If you remember, what was the price you bought the equipment for?

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>Barn / shed</td>
<td></td>
</tr>
<tr>
<td>Draft animal</td>
<td></td>
</tr>
<tr>
<td>Truck</td>
<td></td>
</tr>
<tr>
<td>Equipment*</td>
<td></td>
</tr>
<tr>
<td>Plough</td>
<td></td>
</tr>
</tbody>
</table>

372
<table>
<thead>
<tr>
<th><strong>Harrow</strong></th>
<th><strong>Feed-cutter</strong></th>
<th><strong>Mower</strong></th>
<th><strong>Other</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cellar</strong></td>
<td><strong>Other (specify)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.1.4. **How did you pay for this equipment or buildings?**

<table>
<thead>
<tr>
<th>Form of payment</th>
<th>Tractor</th>
<th>Truck</th>
<th>Car</th>
<th>Equipment</th>
<th>Barn/shed</th>
<th>Cellar</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-kind</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.1.5. **Where did you buy this equipment or buildings?**

<table>
<thead>
<tr>
<th>Source</th>
<th>Tractor</th>
<th>Truck</th>
<th>Car</th>
<th>Equipment</th>
<th>Barn/shed</th>
<th>Cellar</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm enterprise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual farmer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State enterprise – but not the producer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.1.6. **Did you take a loan for the acquisition of equipment or buildings?**

if not, go to → 5.1.9

5.1.7. **What where the terms, conditions and size of the loan?**

<table>
<thead>
<tr>
<th>No</th>
<th>Draft animals</th>
<th>Tractor</th>
<th>Truck</th>
<th>Car</th>
<th>Equipment</th>
<th>Barn/shed</th>
<th>Cellar</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Size of loan (rubles)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Period (months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Annual repayment rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Source*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Repayment form**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* - bank 1
- farm enterprise 2
- relatives 3
- neighbors 4
- other (specify) 5

** Cash 1 rubles
In-kind 2 % harvest
3 kilogram vegetables
5.1.8. Did you repay the loan?
Yes 1  Continue to repay 2  No 3

5.1.9. Do you acquire equipment by leasing?
Yes 1  No 2

if not, go to → 6.1

5.1.10. What are the conditions for the lease of equipment?

<table>
<thead>
<tr>
<th>No.</th>
<th>Draft animals</th>
<th>Tractor</th>
<th>Truck</th>
<th>Equipment</th>
<th>Cellar</th>
<th>Shed/barn</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Price (rubles)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Period of lease (months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Form of payment*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Cash 1 ___ rubles
In-kind 2 ___ % harvest
3 ___ kilogram vegetables
In-services 4 ___ (specify which)
Other 5 ___ (specify what)
6. **WAGE PAYMENT**

6.1. **Wage payment**

<table>
<thead>
<tr>
<th>No.</th>
<th>question</th>
<th>shareholder</th>
<th>spouse</th>
<th>Other family members working at the farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is your average wage? (ruble/month)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What is the average delay in wage payment? (months)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>How much of the wage is paid in-kind? (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.2. *What goods does the farm enterprise pay in-kind?*

<table>
<thead>
<tr>
<th>No.</th>
<th>Good</th>
<th>quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vegetables</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Fruits and berries</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Squashes</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Animals</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Meat</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Hay and straw</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Forage</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Flour</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Manufactured goods</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>services</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Only cash wage</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>payment</td>
<td></td>
</tr>
</tbody>
</table>
6.3. **What other payments and services exist in the farm enterprise?**

(First give the kind of payments, second estimate the value in rubles per year)

- Preparation of land plots for sowing: 1
- Dividend payments: 2
- Lease payments: 3
- Assistance in emergency situations (e.g. wedding, funeral, etc.): 4
- Bonus payments for farm labor: 5
- Other (specify): 6
- No other payments exist: 7
7. RESOURCES ACQUISITION

7.1. Can you buy foodstuff on discount from the farm enterprise?
   Yes 1  No 2

7.2. Do you buy foodstuff on discount from the farm enterprise?
   Yes 1  No 2

7.3. Does the farm enterprise sell any other products?
   (processed or manufactured goods)
   A. At a discount: Yes 1  No 2
   B. On credit Yes 1  No 2

7.4. If yes, for what price?

<table>
<thead>
<tr>
<th>Product</th>
<th>Price, rub./kg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Summer</td>
</tr>
<tr>
<td>1. Potatoes</td>
<td></td>
</tr>
<tr>
<td>2. Cabbage</td>
<td></td>
</tr>
<tr>
<td>3. Carrots</td>
<td></td>
</tr>
<tr>
<td>4. Beets</td>
<td></td>
</tr>
<tr>
<td>5. Other open ground vegetables:</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>6. Greenhouse vegetables:</td>
<td></td>
</tr>
<tr>
<td>7. Cucumbers</td>
<td></td>
</tr>
<tr>
<td>8. Tomatoes</td>
<td></td>
</tr>
<tr>
<td>9. Pepper</td>
<td></td>
</tr>
<tr>
<td>10. Other:</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>11. Water melons</td>
<td></td>
</tr>
<tr>
<td>12. Melons</td>
<td></td>
</tr>
<tr>
<td>13. Berries</td>
<td></td>
</tr>
<tr>
<td>14. Meat</td>
<td></td>
</tr>
<tr>
<td>15. Milk</td>
<td></td>
</tr>
<tr>
<td>16. Cream (slivky)</td>
<td></td>
</tr>
<tr>
<td>17. Sour cream (smetana)</td>
<td></td>
</tr>
<tr>
<td>18. Butter</td>
<td></td>
</tr>
<tr>
<td>19. Vegetable oil</td>
<td></td>
</tr>
<tr>
<td>20. Sugar</td>
<td></td>
</tr>
<tr>
<td>21. Flour</td>
<td></td>
</tr>
<tr>
<td>22. Grain</td>
<td></td>
</tr>
<tr>
<td>23. Hay</td>
<td></td>
</tr>
<tr>
<td>24. Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>

7.5. Is the amount of products to be bought from the farm enterprise limited?
7.6. If yes, what is the maximum quantity?

<table>
<thead>
<tr>
<th>Product</th>
<th>Maximum Kg/month</th>
<th>Actual purchase Average Kg/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Potatoes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Cabbage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Carrots</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Beets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other open ground vegetables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenhouse vegetables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Cucumbers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Tomatoes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Pepper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Water melons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Melons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Berries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Meat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Milk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Cream (slivky)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Sour cream (sметана)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Butter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Vegetable oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Sugar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Flour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Grain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7.7. Kind and quantity of products possible to acquire from the collective farm through unofficial channels?

<table>
<thead>
<tr>
<th>Products</th>
<th>Kg/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Potatoes</td>
<td></td>
</tr>
<tr>
<td>2. Cabbage</td>
<td></td>
</tr>
<tr>
<td>3. Carrots</td>
<td></td>
</tr>
<tr>
<td>4. Beets</td>
<td></td>
</tr>
<tr>
<td>5. Other open ground vegetables:</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Greenhouse vegetables:</td>
<td></td>
</tr>
<tr>
<td>6. Cucumbers</td>
<td></td>
</tr>
<tr>
<td>7. Tomatoes</td>
<td></td>
</tr>
<tr>
<td>12. Pepper</td>
<td></td>
</tr>
<tr>
<td>13. Other:</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>10. Water melons</td>
<td></td>
</tr>
<tr>
<td>11. Melons</td>
<td></td>
</tr>
<tr>
<td>12. Berries</td>
<td></td>
</tr>
<tr>
<td>13. Meat</td>
<td></td>
</tr>
<tr>
<td>14. Milk</td>
<td></td>
</tr>
<tr>
<td>15. Cream (slivky)</td>
<td></td>
</tr>
<tr>
<td>16. Sour cream (smetana)</td>
<td></td>
</tr>
<tr>
<td>17. Butter</td>
<td></td>
</tr>
<tr>
<td>18. Vegetable oil</td>
<td></td>
</tr>
<tr>
<td>19. Sugar</td>
<td></td>
</tr>
<tr>
<td>20. Flour</td>
<td></td>
</tr>
<tr>
<td>21. Grain</td>
<td></td>
</tr>
</tbody>
</table>

7.8. Do you receive from the farm enterprise, officially or unofficially: fuel, fertilizer, seed necessary for the subsidiary production?

Yes 1  Sometimes, seldom  2  No  3

7.9. Which of these resources do you receive from the farm enterprise? (average over the last three years)

<table>
<thead>
<tr>
<th>No.</th>
<th>Resource</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fuel</td>
<td>Ton</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Seed</td>
<td>Kg</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Fertilizer</td>
<td>Ton</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Seedlings</td>
<td>A piece</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Potatoes (seed)</td>
<td>Kg</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Hay / straw</td>
<td>100 kg</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Kombikorm</td>
<td>Kg</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Fodder grain</td>
<td>100 kg</td>
<td></td>
</tr>
</tbody>
</table>
7.10. Where do you think these resources can be acquired least expensive?
At the farm enterprise 1
At the market (e.g. shop) 2

7.11. Give the quantity of resources per input channel.

<table>
<thead>
<tr>
<th>No.</th>
<th>Resource</th>
<th>Unit of measurement</th>
<th>Collective farm enterprises</th>
<th>Local administration</th>
<th>Traders / middlemen</th>
<th>Shop</th>
<th>Local market</th>
<th>Neighbor</th>
<th>Relatives</th>
<th>Own production</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cows</td>
<td>Head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Young cattle</td>
<td>Head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Pigs</td>
<td>Head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Fowls</td>
<td>Head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>Seed</td>
<td>Kg</td>
<td></td>
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<tr>
<td></td>
<td>Seed material</td>
<td>100kg</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Seedlings</td>
<td>Pieces</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Fertilizer</td>
<td>Kg</td>
<td>Calcium 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Phosphor 2</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Azomurol 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Complex 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other 5</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Fuel</td>
<td>Liter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Kombikorn</td>
<td>Kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Forage</td>
<td>100kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Hay / straw</td>
<td>100kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Veterinary services</td>
<td>Rubles</td>
<td>delivery 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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7.12. How did you pay for the acquisition of these services?

<table>
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<tr>
<th>No.</th>
<th>Resource</th>
<th>Cash</th>
<th>Credit</th>
<th>Barter</th>
<th>In-kind wage payment</th>
<th>Agreement with farm</th>
<th>Free from farm</th>
<th>On commodity</th>
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</table>

7.13. Did you take any loans for the acquisition of resources the last three years?

Yes 1  No 2

if not, go to \( \rightarrow \) 8.1
### 7.14. If yes, who gave you this loan?

<table>
<thead>
<tr>
<th>No.</th>
<th>Resource</th>
<th>Farm enterprise</th>
<th>Local administration (e.g. commodity credit)</th>
<th>Bank</th>
<th>Neighbors</th>
<th>Relatives</th>
<th>Other</th>
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</table>
8. PRICE OF SERVICES

8.1. What services do you make use of?
Give value and provider of service.

<table>
<thead>
<tr>
<th>No.</th>
<th>Service</th>
<th>Value Rubles / year</th>
<th>Provider of service*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Storage of production</td>
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<td>2</td>
<td>Cultivation of land</td>
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<td>3</td>
<td>Veterinary services</td>
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<td>4</td>
<td>Transport</td>
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<td>5</td>
<td>Building and repairs</td>
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<tr>
<td>6</td>
<td>Processing</td>
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<tr>
<td>7</td>
<td>Other</td>
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</tbody>
</table>

* farm enterprise 1
local administration 2
middleman 3
relative 4
neighbor 5
individual farmer 6
other (specify) 7

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9. SALE OF PRODUCTION

9.1

<table>
<thead>
<tr>
<th>No.</th>
<th>Product</th>
<th>Quantity kg</th>
<th>Average price Rubles per Kg/liter</th>
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<tr>
<td></td>
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<td>Summer</td>
<td>Winter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Summer price</td>
<td>Winter Price</td>
</tr>
</tbody>
</table>

1 Potatoes
   Open ground vegetables
     Cabbage 1
     Carrot 2
     Beet 3
     Other 4

2 Hothouse vegetables
   Cucumbers 1
   Tomatoes 2
   Peppers 3
   Other 4

4 Grains

5 Fruits and berries
   Melons 1
   Water melons 2
   Berries 3
   Other 4

6 Hay, straw and green fodder

7 Milk

8 Dairy products
   Sour cream 1
   Cream 2
   Butter 3
   Other 4

9 Meat
   Beef / veal 1
   Pork 2
   Other 3

10 Eggs

11 Animals
   Piglets 1
   Calves 2
   Cows 3
   Pork 4
   Chicken 5

12 Hay / straw

13 Other
9.2. Where do you usually sell your production? (rate in order of importance)
1. in a busy street
2. middleman
3. farm enterprise
4. neighbor
5. at local market
6. processing enterprise
7. other

10. COOPERATION

10.1. Do you cooperate in the execution of agricultural work?
Yes 1  No 2
if not, go to → 8.1

10.2. If yes, who do you cooperate with and in what fields?

<table>
<thead>
<tr>
<th>Type of work</th>
<th>Neighbors (give number of households)</th>
<th>Relatives (give number of households)</th>
<th>Farm enterprise</th>
<th>Individual farmers</th>
<th>Other (specify)</th>
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</thead>
<tbody>
<tr>
<td>Preparation of land</td>
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<td>Other (specify)</td>
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</table>

10.3. How has the level of cooperation changed over the past three years?
Decreased  1  Increased  2  No change  3
11. SOURCE OF INCOME

11.1. From which sources does your household usually receive income?
- Wage payment from farm enterprise (cash) 1
- Other payments and non-monetary income from farm enterprise 2
- Wage payments from other sources 3
- Pensions 4
- Social transfers (stipends, child allowances, disability, etc.) 5
- Income from subsidiary household production 6
- Income from other commercial activities 7
- Other 8

11.2. Source of income per household member (rubles per year)

<table>
<thead>
<tr>
<th>No</th>
<th>Household member</th>
<th>Wage payment (actually paid)</th>
<th>Other payments from farm enterprise</th>
<th>Sale of household production</th>
<th>Other commercial activities</th>
<th>Leasing out of land</th>
<th>Provision of agricultural services</th>
<th>Other</th>
<th>Average per month</th>
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</table>

11.3. How did the real household income change over the last three years?
- Decreased 1
- Increased 2
- No change 3

With which of the following statements would you most agree?

- The current household income is:
  - Insufficient for food 1
  - Only sufficient for food 2
  - Only sufficient for food and clothes 3
  - Only sufficient for food, clothes and necessary repairs of appliances 4
  - Only sufficient for food, clothes, necessary repairs of appliances and house repairs 5
  - Sufficient for food, clothes, necessary repairs of appliances, house repairs house and savings (give savings as % of household income) 6

11.4. With which of the following statements would you most agree?

Three years ago the household income was:
- Insufficient for food 1
- Only sufficient for food 2
- Only sufficient for food and clothes 3
- Only sufficient for food, clothes and necessary repairs of appliances 4
- Only sufficient for food, clothes, necessary repairs of appliances and house repairs 5
- Sufficient for food, clothes, necessary repairs of appliances, house repairs house and savings (give savings as % of household income) 6
Appendix 4: Maps of the Leningrad and Saratov Oblasts
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