



CONSTRAINTS TO GROWTH IN RUSSIAN AGRICULTURE

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The Transition

THE POLITICAL REVOLUTION OF 1991 opened a new era for Russia in both government and economics. The path to a well-functioning market economy has not been smooth, however, and problems have been particularly acute and persistent in agriculture. A decade after the initial reforms of the former Soviet economy, the results in agriculture remain disappointing. Despite food price liberalization, barriers to marketing agricultural output are still present in many regions, and access to modern inputs is very limited almost everywhere. Agricultural output remains about one-third below the pre-reform levels of 1989-91. Despite these problems, the last few years have seen the emergence of innovative ways of introducing entrepreneurship into Russian farming that may counter some existing constraints. Nonetheless, the long-term economic health of agriculture will require significant changes in governmental policies.

The transition of Russian agriculture from collective farms directed and subsidized by the state to entrepreneurial farms capable of survival in competitive markets was never expected to be quick and easy. Yet the obstacles to successful reform have proven exceedingly persistent and difficult to surmount. Given the size of Russia's agricultural labor force and the share of the economy committed to agriculture, it will be hard to achieve overall economic growth in Russia without a major contribution from agriculture.

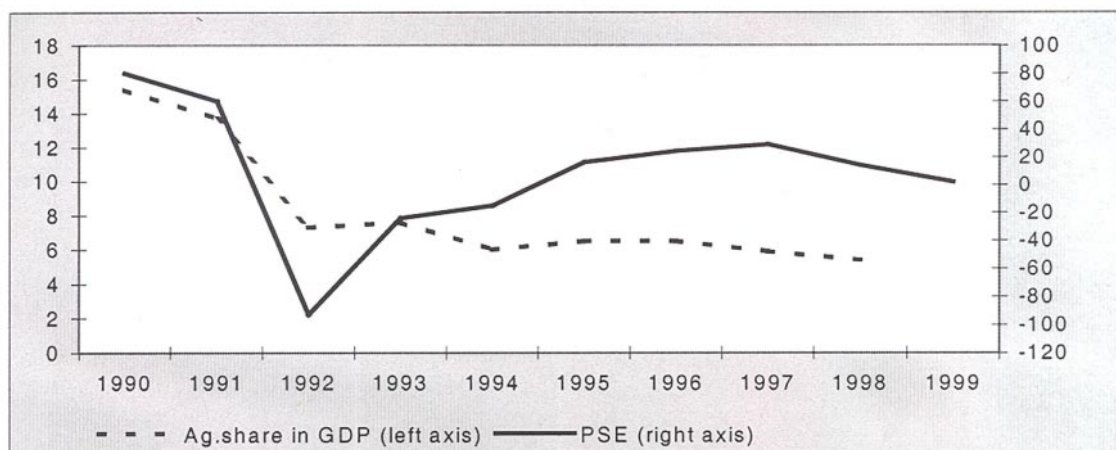
By understanding and documenting the nature and extent of current economic problems, analyzing their underlying causes and consequences of the transitions in agriculture, BASIS can offer analysis indicating policy approaches that are most promising for placing Russian agriculture on a sustainable path to economic viability and growth.

The Crisis

The goal of market-oriented reform was the central motivation for changed policies, but this goal was not fully endorsed by many people in agriculture and in government. Liberalization of food commodity prices, in January 1992, introduced market uncertainties at the same time that national government support to agriculture declined. Figure 1 shows the decline in support, as measured by producer subsidy equivalent (PSE). As can be seen, the PSE declined from an estimated 80% of agricultural gross domestic product (GDP) in 1990 to 1% of agricultural GDP in 1999. As a result, both agricultural output and the price of that output relative to nonagricultural products declined.

Also underlying these events during the 1990s were other disruptive changes. Collective farms were reorganized, formerly subsidized inputs were no longer reliably available, provision for pensioners and others on farms was sharply cut back, and private farming was introduced. All these changes occurred differently in different regions, and the pace of change varied greatly.

Figure 1. Share of agriculture in GDP and PSE



The results have been as mixed and inconclusive as the preceding policy story would lead one to expect. Restructuring former collective farms has not been accomplished in many areas, and, after an initial spurt to 270,000 farms, the growth of private farming has stagnated. Indeed, indications are that private farms in 2001 are no more numerous than in 1995, and many of the ones established early on have failed. Neither crop nor livestock output has yet recovered to the levels of 1989-91, and incomes of workers employed in agriculture remains depressed. Yet significant changes have occurred, and some market responses can be observed in the period since the ruble devaluation that accompanied the financial crisis of 1998. Increased economic activity over a longer period has been particularly noteworthy on household subsidiary plots, especially where farm enterprises that succeeded collective farms are weakest. The fall in agricultural output would have been greater but for the stabilizing role of these subsidiary plots, which served as a buffer for food consumption in the most difficult periods of reform.

The role of factor and input markets

Many of the most serious of the obstacles to growth in Russian agriculture involve access to factor and input markets—with tenacious problems in each of the main input categories of land, credit, labor, and purchased inputs. In spite of quite liberal federal land legislation, property rights on land are insecure and the land market is not well developed. There are substantial regional variations in legal and practical capabilities

to lease land, consolidate holdings, and capture the fruits of investment. These regional differences, and changes in recent years in some areas, provide experience that can enable us to investigate the economic gains achievable through reforms of land law and practices that fall short of full, transferable property rights in farmland.

Russian farmers typically have little wealth, and access to purchased inputs (such as fertilizer) and capital goods requires use of credit. Credit to farm enterprises (former collective farms) has been provided at subsidized rates, with occasional write-offs of past debts. Such credit is unsuitable either for consistent financing of current production or longer-term investment. Capabilities for borrowers to obtain commercial credit at reasonable real interest rates require assurance to lenders against default, and this could be most readily provided in the Russian context by using individuals' shares in their former collective farms as collateral. The uncertainty of individual property rights in land or other enterprise assets is thus a major hindrance to the development of Russian farming. Markets for key purchased inputs also are not functioning well, so that even if land and credit market problems were fixed, access to inputs needed for efficient production likely would be severely constrained.

In labor markets, existing problems are again a legacy of the pre-1991 organization of Russian agriculture that post-1991 institutions have been unable to cope with satisfactorily. Constraints include the social-insurance role of collective farms (which

the successor enterprises still retain in many areas), restrictions on residential migration and employment mobility between regions, and a lack of entrepreneurial skills among rural people.

Despite these limitations, new economic arrangements are springing up in some localities in which input suppliers or other businesses related to agriculture are establishing vertically integrated or other contractual arrangements with agricultural producers. These arrangements are managing to supply much-needed fertilizer, chemical, and energy inputs in ways more promising than the barter arrangements that have characterized the dealings of many former collective farms and the *ad hoc* and unpriced ways in which owner-employees of these farms often acquire inputs for their own farming enterprises on private plots. Despite the lack of fully developed landownership rights, rental and purchasing transactions under which new operators may acquire the use of increased acreage are increasing and are beginning to be economically important.

Searching for the true obstacles to growth

The reasons for both the good news and bad news of what has transpired in Russian agriculture since 1991 are in dispute. Reviews and studies undertaken to date

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indicate how difficult it is to draw conclusions about the extent, effectiveness, and consequences of even quite well documented and widely implemented reforms. For example, even to this day there remains substantial disagreement about how far Russia has gone in establishing a functioning market economy.

Research can quantify how serious these constraints are, in the sense of what these market imperfections cost Russian agriculture, in both capability to produce and efficiency of production. There is a crucial need for research that assesses the available data in order to solidify the quantitative knowledge of facts about Russian agriculture, overall and regionally.

What causes obstacles to growth for Russian agriculture? There are multiple competing hypotheses:

1. *Low product prices relative to input costs.* If farm output could command more input services, the current structure of Russian farming, both new private farms and the “joint-stock companies” created from former collective farms, could survive and perhaps even flourish.
2. *Incompleteness of reforms.* The assets of collective farms, most notably farmland, have not been distributed to members as private property that can form the nucleus of family farming, and liberalization of product and factor markets has been largely a sham. Thus the collective farm structure remains frozen in place, even though largely non-functioning, and incentives for individuals to take productive action on their own are lacking (beyond the household plots).
3. *Too much change, too soon.* Reforms have pulled the rug out from under the former collective farms by withdrawing governmental support through input supply and drastically reducing the guaranteed market for products that was provided through deliveries to the State.
4. *Weaknesses in the rest of the economy.* It isn’t just that inputs cost too much relative to output, but, more fundamentally, inputs are not being made available in sufficient quantity and quality at costs that could be covered by any reasonable prices. There is too much labor on farms to be remuneratively employed in agriculture because of the lack of nonfarm employment opportunities.

Underlying factors behind these problems are likely to be found in three main areas: the macroeconomic environment, Russian agricultural policies and institutions, and conditions inherent in the historical situation in Russian agriculture. BASIS research aims to help resolve the dispute over what obstructs agricultural growth in Russia.

Striving for consensus

There can be no hope of agreement among analysts, much less policymakers, on appropriate near- and long-term steps for agricultural development until at least a critical mass of Russian economists and other strategically placed advisors become convinced of the main explanations for the events that have transpired.



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Publication made possible
by support in part from
the US Agency for
International Development
(USAID) Grant No.
LAG-A-00-96-90016-00
through BASIS CRSP.

All views, interpretations,
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Edited and layout by
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BASIS research will be directly relevant to Russian economists and policymakers struggling with the decline of agricultural output and farm income. It is intended to sort out the validity of the causes of the constraints and to quantify the consequences of market and government failures in each of the areas discussed.

Which of the four hypotheses stated above is true will have radically different policy implications. For example, if the second hypothesis proves to be true, then promoting household plots and contracting with agribusiness may be effective strategies for coping with current constraints on access to input markets. Over the longer term, however, are these viable substitutes for full ownership rights in land, full mobility of labor, and well-functioning commercial credit and input markets? Put another way, what is the cost to Russian agriculture of delaying or forgoing these key elements of Western agricultural economies? BASIS researchers will specify concrete policy options, offer clear statements of the advantages and disadvantages of each, and assess, from an economic perspective, both efficiency and equity considerations.

It also is important to demonstrate the importance of factor market constraints as compared to other sources of economic problems. Perhaps, for example, a more basic problem is managerial—the inputs, capital, and technologies that are available are not being allocated to commodities, fields, or in the way that maximizes the return that can be achieved from these inputs. It is possible that neither factor market constraints nor managerial inefficiency is the biggest problem, and that Russian agriculture could be much more productive if only agricultural output prices were higher, or input prices lower.

BASIS research will quantify the extent to which factor market constraints have impaired the ability of Russian agriculture to function efficiently and profitably, establish which constraints are most

important in both the short- and long-run perspectives, and provide the analytical knowledge needed to formulate policies to remedy obstacles and constraints.



Suggested reading

- Gardner, B. 2001. "A Framework for Investigating Issues in Factor Markets and Economic Organization of Russian Agriculture." Mimeo. Presented at BASIS conference, Golitsino, Russia, 6-7 July 2001.
- Kiselev, S. 2001. "The Macroeconomic and Structural Shifts in a Context of the Rural Labor Market Development." Mimeo. Presented at BASIS conference, Golitsino, Russia, 6-7 July 2001.
- Leonard, C., and Eu. Serova. 2001. "The Reform of Agriculture." In *Russia's Post-Communist Economy*, edited by B. Granville and P. Oppenheimer. Oxford: University Press.
- Rylko, D. 2001. "New Agricultural Operators, Input Markets and Vertical Sector Coordination." Mimeo. Presented at BASIS conference, Golitsino, Russia, 6-7 July 2001.
- Serova, Eu., Joachim von Braun, and Peter Wehrheim. 1999. "The Impact of Financial Crisis on Russia's Agro-food Sector." *European Review of Agricultural Economics* 26(3): 349-371.
- Serova, Eu., N. Karlova, and V. Petrichenko. 2001. "Russia: The Market of Purchased Inputs for Agriculture." Mimeo. Presented at BASIS conference, Golitsino, Russia, 6-7 July 2001.
- Shagaida, N. 2001. "Land Market." Mimeo. Presented at BASIS conference, Golitsino, Russia, 6-7 July 2001.
- Uzun, V. 2001. "Organizational Types of the Agricultural Production in Russia." Mimeo. Presented at BASIS conference, Golitsino, Russia, 6-7 July 2001.
- Yastrebova, O. 2001. "Credit, Finance and Investment in Agriculture." Mimeo. Presented at BASIS conference, Golitsino, Russia, 6-7 July 2001.