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WORKING PAPER OF THE WORLD BANK

Agricultural Policy of Russia

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FOREWORD

The Russian agricultural sector has tremendous untapped productive potential, and assisting countries with their agricultural development is a mainstay of the work of the World Bank. It would appear, therefore, that the prospective benefits for cooperation in this sphere would be great. But after what appeared to be a promising beginning, this cooperation has foundered. Early in Russia's transition, after a series of Rehabilitation Loans, the World Bank helped finance two projects specifically to support agricultural reform. The Agriculture Reform and Implementation Support Project (ARIS) has helped develop market information systems, wholesale markets, and capacity for production of quality seeds. The Land Reform and Implementation Support Project (LARIS) has assisted land registration in a limited number of oblasts. But further support from the Bank for the agricultural sector has been quite limited, with no major investment projects in the current pipeline. The reasons for this are many, but the single most important constraint has been the failure to reach agreement on the key elements of a reform program.

This volume summarizes the conclusions reached by a World Bank team that carried out a study of recent and current Russian agricultural policy. The authors would like to acknowledge the assistance and insights they received from the Ministry of Agriculture staff, and in particular the staff of the Ministry and other participants in the organized discussions of this report.

The objectives of carrying out such a study were three-fold:

- To engender debate regarding agricultural policy among the Bank, other donors, the Russian government, and Russian non-government representatives, in order to stimulate thinking about that policy;
- Through the publication of the Bank's report, to contribute to greater understanding of the Russian agricultural sector outside of Russia;
- To define a framework for further collaboration between the Russian government and the Bank in the rural sector.

The above objectives are important because there has been very little debate among Russians and Russia's partners on rural development strategy; knowledge of the agricultural sector is very weak in most of the World; and there is presently little collaboration between the Bank and the government in the rural development sphere. It is also important because Russian agriculture has great under-exploited potential.

The study formed the basis for an in-depth discussion in a workshop hosted by the Ministry of Agriculture of the Russian Federation and the World Bank in October of 2001. Participants included several ministries of the Russian Government, the OECD, academics, and representatives of civil society. While it would not be accurate to say that there was a virtual consensus on the direction that should be taken by future policy, there was nonetheless a widespread recognition that many of the policies of the past have been counterproductive and should be reformed. The Government wishes to prepare a

program to do this. While the recommendations of the World Bank team differ in significant respects from the current policies, there are a number of areas of agreement. This report attempts to reflect the areas of consensus as well as the differing views, based on the discussion in the workshop. But more importantly, it attempts to offer suggestions for further policy actions in a constructive manner in those cases where the Bank team feels that further reforms are needed.

It is our hope that through a continuation of this dialogue, there will be a further convergence of views, so that the World Bank can deepen its work in partnership with the Government to support Russian agriculture in realizing its full potential.

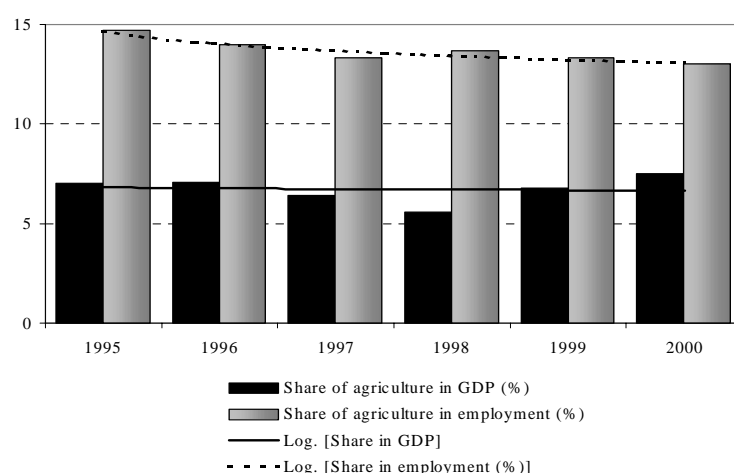
Chapter 1: Performance of the Agricultural Sector

John Nash, Vera Matusevich, and Holger Kray

I. PRIMARY AGRICULTURE IN THE NATIONAL ECONOMY

The Russian agricultural sector fared poorly during the transition period of the 1990s. In 1990, at the beginning of the reforms, agriculture accounted for 16.4% of the Russian Federation's Gross Domestic Product (GDP), and was a large and very important sector in the national economy. By 1998, the share of agriculture in GDP had fallen below 6% and recovered only slightly in 1999, when it reached 6.8% (see **Figure 1.1** and **Table 1.1**)¹. In 2000 the share of agriculture grew to 7.5% of GNP.

Figure 1.1: Share of Agriculture in GDP and Employment



Source: Goskomstat; World Development Indicators, the World Bank, 2000

According to official figures, there was a 61.2% decline of the Gross Agricultural Output (GAO) in constant prices in 2000 compared to 1990². While there are reasons to question the comparability of the figures from the early 1990s with those of more recent years, and so the official figures may overstate the decline, it is nonetheless clear that production has fallen significantly. It is also clear that this decline of the sector's share in GDP was accelerated by a notable change in relative prices in favor of the input sector³, i.e. a negative development of sectoral terms of trade. However, agricultural output has been growing since 1999 (see Table 1.1), mostly due to crop production. The physical index of agricultural production increased by 4.1% in 1999 and 5% in 2000, including 9.1% and 8.9%, respectively, in crop production.⁴

¹ The decline of the sector's share in GDP – a phenomenon observable in almost all advancing market economies – is on its own not necessarily an indicator of inferior sectoral development, but might also be driven by increasing contributions of other sectors to the total GDP.

² Russia in Figures, 2001, Goskomstat, p.200

³ Tradable inputs, such as e.g. mineral fertilizers, pesticides, mineral supplements to livestock feed.

⁴ Agro-Industrial Complex of Russia, Goskomstat, 2001, p. 14

Table 1.1: Position of Agriculture in the National Economy

	1995	1996	1997	1998	1999	2000
Share of agriculture in GDP	7.0	7.1	6.4	5.6	6.8	7.5
Share of agriculture in employment	14.7	14.0	13.3	13.7	13.3	13.0
Share of food and agricultural raw materials (except textile) in total exports	3.4	3.7	2.8	3.2	2.7	2.6
Share of food and agricultural raw materials (except textile) in total imports	28.3	25.3	25.0	24.9	26.1	21.8
Share of food and agricultural raw materials (except textile) in exports to non-CIS	3.5	3.8	2.6	2.8	2.4	2.2
Share of food and agricultural raw materials (except textile) in imports from non-CIS	29.4	24.9	26.0	27.3	28.4	23.9
Share of food and agricultural raw materials (except textile) in exports to CIS	2.8	3.2	3.6	4.0	4.4	5.3
Share of food and agricultural raw materials (except textile) in imports from CIS	25.4	26.1	22.6	18.1	20.0	18.2
Gross agricultural output, nominal	203.9	286.9	309.2	304.5	606.1	844.9
Gross agricultural output, real	66.9	63.5	64.5	56.0	58.3	61.2
Share of crop production in GAO	53.1	54.6	55.5	49.4	53.5	58.3
Share of livestock production in GAO	46.9	45.4	44.5	50.6	46.5	41.7

Source: Goskomstat, Agriculture In Russia. 2000, p. 18, 19, 32, 33, 34, 137, 140. Shares in total imports and exports were calculated by authors on the basis of this source, pp.137, 140;

The 2000 data is calculated using "Russia in Figures", 2001, Goskomstat of Russia, pp. 199 – 200 and corrected by the amount of fish export outside CIS countries that was not accounted by the Customs statistics in 2000.

The GAO index in constant prices can be driven by distortions in the constant prices relative to international prices. However, it will not be affected in the short run by the dynamics in domestic trade in agricultural goods and other commodities and services. As stated in Valdes (2000),⁵ variations of the real exchange rate or in sector or commodity specific relative prices can cause a change in the sector's share in GDP separately from variations in an index of gross output. If agricultural prices decrease relative to other prices in the economy, agriculture's share in GDP will decline even if output remains constant. If the shift in relative prices is sustained, it is likely to feed into production incentives and to contribute to a decline in the index of gross output. In Russia over the period studied in Valdes (1994-97), gross output declined, the real exchange rate varied, and agricultural prices for input and output were subject to a number of pressures. Some of the factors influencing prices originated in imperfections of the rather chaotic Russian market environment, while others can be attributed to governmental policies adopted during this period.

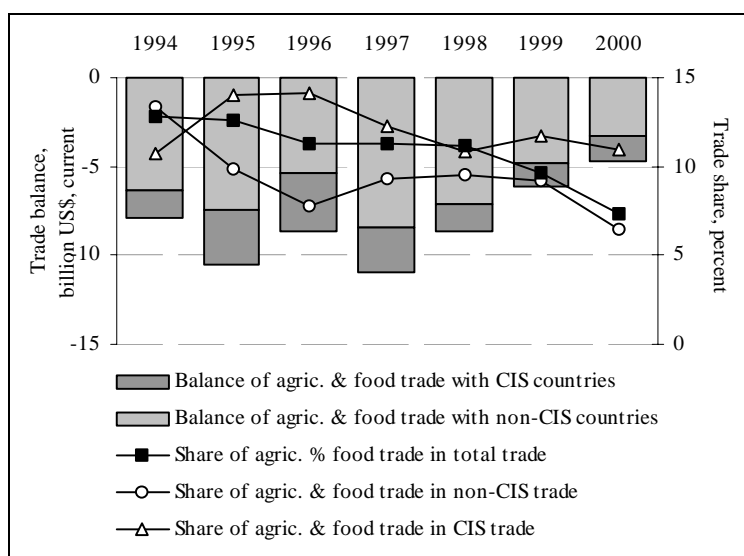
In some Europe and Central Asia Region (ECA) countries, similar trends were observed after the previously artificially high allocation of production factors to agriculture was left to the decision of free market forces. In essence, output fell as resources exited from the sector. In contrast, in Russia, the share of agricultural workers in the total of the economically active population (12.9% in 1990, 13.3% in 1999) has remained fairly steady and quite high⁶; the share

⁵ Alberto Valdes, ed., Agricultural Support Policies in Transition Economies, The World Bank, 2000.

⁶ Taking the aforementioned shares in the Gross Domestic Product into account, it indicates a drop in output per worker since 1991, an average labor productivity significantly below the national average, and suggests growing hidden unemployment in rural areas.

of the agricultural sector in total (i.e., national) fixed assets fluctuated year to year, but remained relatively constant (11.5% in 1990, 13.9% in 1996, and 10.2% in 2000⁷); and the rural population has remained at about 27% of Russia's total population – most of it dependent on agriculture to make its living. Thus, more than a quarter of the population has to make a living from far less than a tenth of the national income. Although cultivated area has declined somewhat, primary factors of production have not left the sector in proportion to their fall in production, which indicates that their productivity has declined dramatically.

Figure 1.2: Foreign Trade with Agricultural and Food Products, 1994-2000



Source: Russian Economic Trends – www.recep.ru

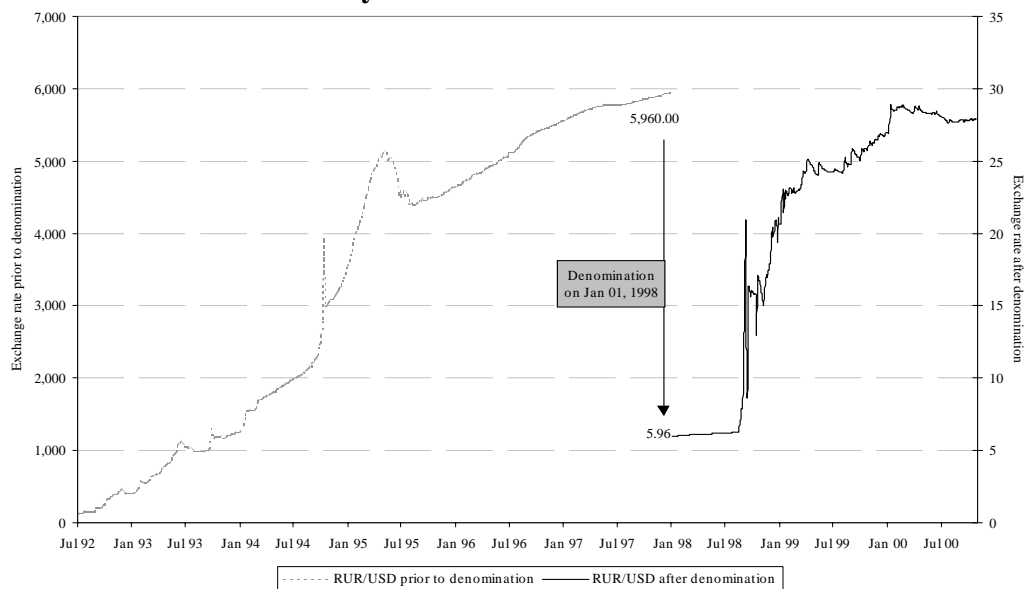
Russia's foreign trade relations have also been subject to important institutional changes throughout the 1990s⁸. Food and agricultural products traditionally represented a substantial part of Russia's foreign trade. At the end of the 1990s, the sector accounted for around 11% of total trade turnover (see **Figure 1.2**). In 2000, food and raw agricultural commodities (without raw skin, fur and textile) accounted for 7.3% of Russia's foreign trade turnover, including 11% of trade turnover with the Commonwealth of Independent States (CIS). It had a large share in total imports, but only a small proportion of exports: in 2000, the shares stood at 21.8% and 2.6%, respectively (see **Table 1.1**). The agro-food trade deficit amounted to \$4.7 billion compared to \$6.1 billion in 1999, down from \$11.0 billion in 1997. In value terms, Russian agro-food imports fell again in 1999 and were 40% below the pre-crisis levels of 1997. Besides the weak performance of domestic producers, potential reasons for the earlier rise in imports were the

⁷ Goskomstat, 2000, op.cit., p.23.

⁸ Russia was forced to negotiate new trading arrangements with each of its traditional partners after the collapse of the Council for Mutual Economic Assistance (CMEA) and the disintegration of the Soviet Union. Among the new trade agreements that have been concluded the most important are the Partnership and Co-operation Agreement with the European Union (EU) and various agreements with the New Independent States (NIS). Russia is also in the process of negotiating accession to the World Trade Organization (WTO).

appreciation of the ruble, as well as subsidies applied by some exporting nations to exports to Russia. After the 1998 crisis, the subsequent depreciation of the ruble led to an import substitution in favor of domestically produced agricultural and food products. The Organization for Economic Cooperation and Development states that the Russian food industry output rose by 7.5%, benefiting from the sharp depreciation of the ruble⁹ (**Figure 1.3**). Despite lower household incomes, fall in agro-food imports indicates higher aggregate demand for domestically produced food products. According to this report, this import-substitution effect enhanced production of margarine, canned meat, granulated sugar, cigarettes, baking yeast, beer, pasta, and food concentrates whose output rose by between 20% and almost 60%; meat and dairy production (with the exception of canned meat and ice cream) were reported to have declined.

Figure 1.3: Exchange Rate of Russian Ruble Against US Dollar – July 1992 - October 2000



Source: Russian Central Bank – www.cbr.ru

There was a further growth of food industry output in 2000. The highest growth rates were observed in the production of vegetable oil (1.5 times), mayonnaise (28%), beer (22%), wine (30%), sausages (12%), cheese (15%), and whole milk products (9%). According to expert assessments, the food industry is Russia's most dynamic sector in 2001, and its output is predicted to grow by 8.9% relative to 2000. The production of meat and sausages is expected to increase by 14%, granulated sugar by 16%, and beer by 28%.¹⁰

During the first post-reform years, the geographical structure of Russian imports changed substantially; while agro-food imports from OECD countries, especially the EU, increased, the imports from traditional suppliers, such as the Central and Eastern European Countries (CEECs),

⁹ "Agricultural Policies in Emerging and Transition Economies 2000" OECD, Paris, Jan. 2000.

¹⁰ *Vedomosti*, November 21, 2001, page A3

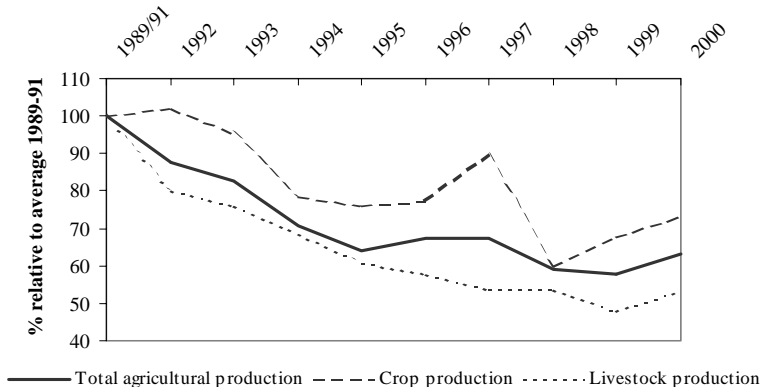
have declined. Since the mid 1990s, Russia's main food suppliers were Ukraine, the USA, Germany, Moldova, Kazakhstan and the Netherlands. By now, the relative share of imports from the Commonwealth of Independent States (CIS) and non-CIS countries have returned almost to pre-crisis levels, i.e., both groups of countries have been affected by the fall in Russian imports by about the same proportion.¹¹ But there is a big difference in the composition of imports: pre-crisis, Russia was importing mostly processed foods, and post-crisis, processed food imports dropped sharply in favor of unprocessed agro-food products, such as raw sugar, carcass meat, raw tobacco, wheat, corn, and soybeans. This trend is likely to continue in 2001 because Russian agriculture cannot provide domestic processing plants with adequate supplies of necessary raw materials, particularly meat, milk, sugar. Grain is the only exception, and its exports may exceed 4 million tons in 2001. Exports of raw agricultural commodities have also been growing faster than exports of processed food, and this trend is unlikely to be reversed in the near future. In addition to a production not always being competitive by international standards, the Russian food industry does not have an adequate access and linkages to international markets.

As becomes obvious from these introductory comments on the position of Russia's agricultural sector in the total economy, agriculture remains tremendously important in Russia, but its efficiency (as reflected in the low share in GDP compared to its high share in resource allocation) seems to have dropped significantly since 1990, relative to other sectors of the economy. Even if the traditional long-term trends in the development of market economies (increased importance of industrial and service sectors, alongside with a decrease in importance of the agricultural sector) are likely to occur in the Russian Federation, the rural sector (with agriculture as its main component) remains – in a medium term outlook – a critical sector for rural incomes and thus for the national economy.

General Trends in the Performance of Primary Agriculture

Agricultural production not only decreased relative to the national product, but it did so also in absolute terms of GAO. By 1999, agricultural production was only 57.7% of its average 1989-91 level (see **Figure 1.4**). In 2000 it grew to 62% that indicates a slight recovery in the sector. Moreover, **Figure 1.4** indicates that the performance of the food and agricultural sector has been rather different for individual subsectors.

Figure 1.4: Dynamics of Gross Agricultural Output 1990-2000
[1989-91=100]



Source: Goskomstat - www.gks.ru

¹¹ "Agricultural Policies in Emerging and Transition Economies 2000" OECD, Paris, Jan. 2000.

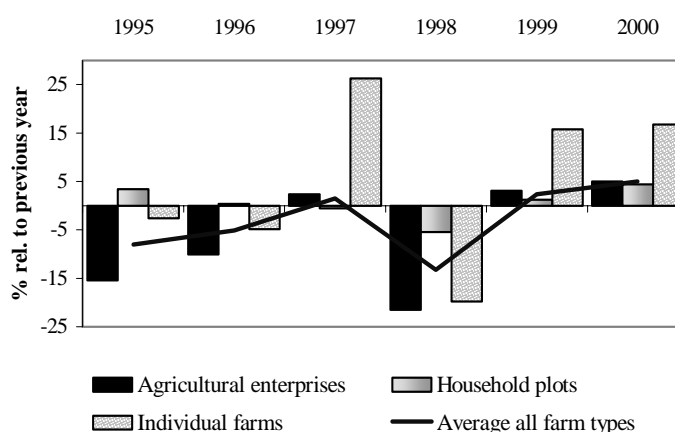
Crop production, which is the dominant sector in terms of GAO contribution, did contract less than the average of the agricultural sector but it experienced a higher fluctuation (**Figure 1.4**) – most probably in response to weather conditions in the main production regions¹². This main trend, i.e. a secular reduction in crop production, is the combined effect of a decrease in both area sown (see **Table 1.2** and **Figure 1.6**) and per-hectare yields (see **Table 1.3**). Due to a sharp decline in the number of animals and small changes in yields per animal, livestock production also declined over the same period.

According to data in **Figure 1.5**, the most significant portion of these negative developments are attributable to the poor performance of the agricultural subsector that succeeded most of the traditional *kolkhozes* and *sovkhozes*, i.e., the current subsector of *agricultural enterprises*¹³. Compared to 1990, the 2000 agricultural output decreased by 38.8% in constant prices, including a reduction of 61.1% in output of agricultural enterprises, while the output of household plots rose by 20.7% over the same period.¹⁴

Agricultural enterprises account for 82% of the total agricultural land area, including 86% of arable land, and produce about 90% of Russia's cereals, sunflower seeds and sugar beets. In livestock production, agricultural enterprises account for, depending on the particular commodities, one-half to two-thirds of the national production – with the remainder carried out on household plots and individual farms.

Household plots account for 6% of agricultural land, including 4% of arable land, and produce about 1% of cereals, sunflower seeds and sugar beets, over 90% of potatoes, more than 2/3 of vegetables, and over 1/2 of milk, livestock and poultry production. Overall, household plots produced 54% of all agricultural products in 2000 (versus 32% in 1992).¹⁵ This is a hint at the high productivity of these plots. However, it should be noted that households use a significant area of municipal and other lands for agricultural production: exact figures are not available, but according to the best estimates, the area actually used by them amounts to 12-15% of agricultural land.

Figure 1.5: Dynamics of GAO by Farm Type [rel. to prev. year]



Source: Agriculture in Russia, Goskomstat, 2000

¹² In 1998 especially, farmers suffered from extremely adverse weather conditions which brought about a very poor harvest (see **Figure 1.4**).

¹³ A more detailed discussion of farm restructuring issues is provided in **Chapter 3** of this report.

¹⁴ Russia in Figures, Goskomstat, 2001, p. 200

¹⁵ Russia in Figures, Goskomstat, 2001, page 199

In 2000, individual farms accounted for 3% the total agricultural output (including 3.8% of crop production and 1.8% of livestock production) by official figures; in 1992, that share was 1%. There are some reasons to believe that the sector's actual share is 5-6% rather than 3%, but in any case the private sector does not play a significant role in rural development. The reformers' hopes for a rapid 'farmerization' of the country, which they expressed in the early 1990s, did not come true. However, at present there is a risk of a priority development of large agricultural enterprises to the detriment of the other types of agricultural production (see Chapter 5).

As indicated by Figure 1.6, the share of the most important crops in arable land did not change much over the second half of the last decade, with the exception of a large expansion of sunflowers. **Table 1.2** indicates that there was also an increase in the area occupied by vegetables and fallow land in 1992-2000.

Table 1.2: Area Sown, All Farm Types, 1995-2000, thou. hectares

	1992	1995	1996	1997	1998	1999	2000	2000 to 1992 %
Total area sown	114591	102500	99626	96554	91660	88272	85419	74.5
Cereals	61939	54700	53388	53634	50724	46525	45636	73.7
Wheat (winter- and spring-)	24284	23900	25707	26056	26100	23013	23204	95.6
Rye	7574	3200	4147	4005	3777	3385	3531	46.6
Barley (winter- and spring-)	14564	14700	11800	12500	11300	9900	9177	63.0
Oats	8540	7900	6900	6400	5200	5300	4518	52.9
Corn	810	643	622	918	787	703	813	100.4
Millet	1875	700	1228	1086	975	1609	1588	84.7
Buckwheat	1709	1600	1369	1112	1226	1338	1577	92.3
Rice	265	171	172	151	146	173	175	66.0
Leguminous plants	2266	1800	1430	1340	1185	1071	922	40.7
Flax	327	177	153	114	107	104	108	33.0
Sugar beets (industrial)	1439	1100	1060	933	810	900	806	56.0
Sunflowers	2889	4100	3874	3588	4168	5585	4629	160.2
Potatoes	3404	3400	3405	3352	3265	3256	3252	95.5
Vegetables	862	758	737	749	743	820	833	122.1
Fallow land	13026	17400	17800	17800	18600	17600	18042	138.5

Source: Russia in Figures, 2001, Goskomstat, p. 207

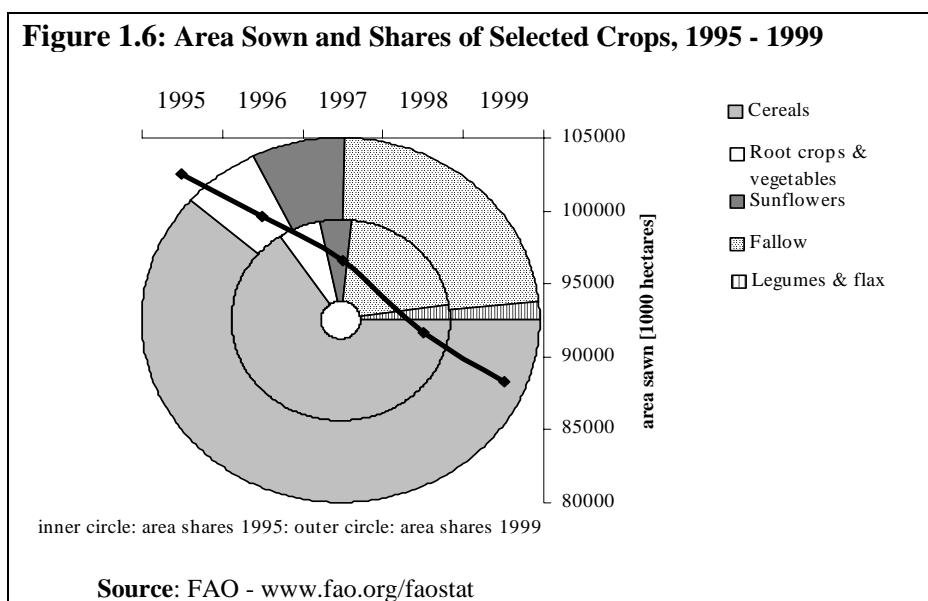


Table 1.3: Yield of Selected Crops, All Farm Types, 1991 – 2000, in tons per hectare

	Average		1995	1996	1997	1998	1999	2000
	1991-1995	1996-2000						
Grains (after cleaning)	1.57	1.51	1.31	1.49	1.78	1.29	1.44	1.56
Flax-fiber	0.38	0.40	0.44	0.43	0.25	0.43	0.36	0.55
Sugar beet (factory)	17.9	17.7	18.8	17.4	18.6	15.3	18.5	18.8
Sunflower	1.05	0.85	1.06	0.81	0.86	0.84	0.83	0.90
Potatoes	11.0	10.5	11.8	11.4	11.1	9.7	9.7	10.5
Vegetables	14.5	14.6	14.8	14.5	14.7	14.1	14.9	14.6

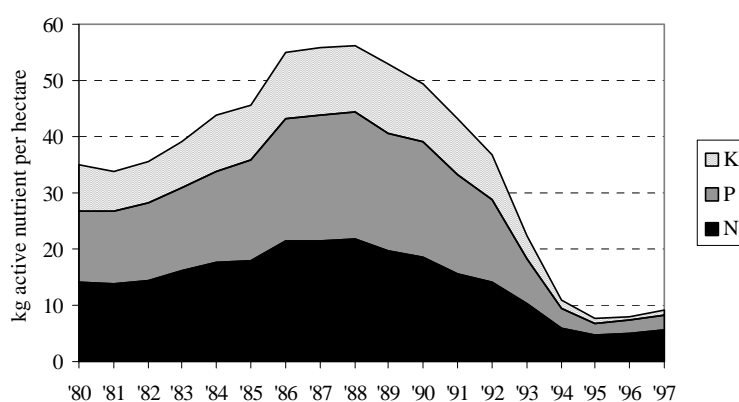
Source: Agro-Industrial Complex of Russia, 2001, Goskomstat of Russia, p. 30

Of course, the poor performance over the past decade has raised concerns in the various groups involved in agricultural issues in the Russian Federation. Foremost among these is the government, which has tended to view high levels of production as a desideratum, regardless of cost, and has viewed self-sufficiency as an ultimate objective. However, in an open economy, efficiency of production should be the main concern, not volume - whether food is domestically produced or imported depends on the relative resource cost of producing it domestically versus buying it abroad. Viewed in this light, some of the contraction in Russian agriculture was explicable (and, in some cases, even desirable) due to the highly subsidized nature of Russian agriculture in the pre-reform period¹⁶. Much of the support was delivered via cheap inputs, especially fertilizer and fuel, leading to its ineffective use (most often its over-use and waste) that did not translate into proportionate growth in production. Such subsidies declined dramatically after 1991; as a result of this and general price de-regulation, input prices have increased much faster than output prices (**Table 1.6**). Farm gate prices grew only 2.7 times from 1991 to 1999 (taking redenomination into account), while agricultural input prices overall grew 8 times. Prices

¹⁶ The issue of agricultural protection is discussed in **Chapter 2** of this report.

for fuel and lubricants grew by 17.4 times during this period, electric energy – 13.2 times. The use of all inputs plummeted. Gasoline use in agriculture declined from 11.3 million tons in 1990 to 1.8 million tons in 2000, diesel use from 20 to 5.0 million tons, mineral fertilizer use from 9.9 to 1.4 million tons (see **Table 1.4** and **Figure 1.7**). By now, after almost a decade of very low fertilizer use, there is widespread agreement that soil fertility is at dangerously low levels¹⁷.

Figure 1.7: Trends in Fertilizer Application, 1980-1997



Source: FAO - www.fao.org/faostat

Table 1.4: Use of Selected Purchased Inputs in Primary Agriculture, 1995 – 2000

			1995	1996	1997	1998	1999	2000	2000 к 1995 %
Fuel for engines		[million t]	10.4	9.1	9.8	8.3	7.1	6.8	65.4
	o.w.	diesel	7.1	6.2	7.0	5.9	5.1	5.0	70.4
		gasoline	3.3	2.9	2.8	2.4	2.0	1.8	54.5
Mineral Fertilizers		[million t]	1.5	1.5	1.5	1.3	1.1	1.4	93.3
Organic Fertilizers		[million t]	127.4	107.8	86.1	72.1	69.1	66.0	51.8
Lime(-stone)*		[million t]	3.5	2.1	1.7	1.9	2.0	2.2	62.8
Pesticides**		[1000 t]	15.9	12.5	11.3	5.8	9.8	9.7	61.0

* Production ** Production, in 100% active ingredient equivalents

Source : Agro-Industrial Complex of Russia, 2001, Goskomstat, pp. 19, 20

The changes in relative prices among inputs also caused a large shift in the proportion of spending on different inputs. **Table 1.5** shows a huge reduction in the share of "agricultural services" (i.e., mainly mechanized services purchased from third party service providers) partly due to the increase in the share of expenditures for fuel and energy. The share of spare parts also increased -- from 4.6% in 1991 to 13%-- as outdated machinery and equipment require larger scale maintenance.

¹⁷ Successive governments have responded to this in ways that have not encouraged increased efficiency or private sector development, though these efforts have been constrained by budget pressures, and have never come close to previous subsidy levels. This issue is also discussed in **Chapter 2** of this report.

Table 1.5: The Structure of Agricultural Inputs (%%)

	1991	1999
Agricultural input - total including	100	100
Industrial goods	75.1	99.4
Ag. equipment	8.5	3.6
Tractor	3.2	2.0
Trucks	2.9	1.5
Spare parts	4.6	13.0
Mineral fertilizers	7.1	4.2
Fuel (for engines) and lubricants	7.9	33.1
Combined feed	22.9	24.5
Construction materials	3.7	1.4
Electric energy	2.1	7.8
Solid fuel and firewood	2.2	4.1
Services	24.9	0.6

As is clear from **Table 1.6**, agricultural output prices were growing at a higher rate than agricultural input prices in 1998 and 1999. However, the trend was reversed again in 2000. At the same time, the growth rate of the farm-gate price index (136%) was much higher than the consumer price index (120%) or consumer price index for foodstuffs (118%) in 2000.

Table 1.6: Price Indices (change in % to the previous year)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	1999 to 1991, times	2000
Farm-gate prices	160	940	810	300	330	143	110	111	200	2.7	136
Agricultural input prices (industrial goods and services)	190	1620	1070	420	320	164	118	109	161	8.0	148
Consumer prices for goods and services*	260	2610	940	320	230	122	111	184	136	6.0	120
Including consumer prices for foodstuffs (including alcohol)*	240	2630	900	310	220	118	109	196	136	5.5	118
without alcohol	<i>n.a.</i>	2670	940	330	220	113	108	202	135	<i>n.a.</i>	<i>n.a.</i>

*Index of consumer prices is calculated as December to December. Comparison 1999/1991 after re-denomination of ruble

Sources: Agriculture in Russia, Goskomstat, 2000, pp. 123, 125, 128;
Agriculture in Russia, Goskomstat, 1998, pp. 115, 116, 119, 122;
Russian Statistical Yearbook, Goskomstat, 1999, p. 547
Statistic Bulletin, #6 (80), 2001, Goskomstat, p. 25
Social and Economic Status of Russia, January 2001, Goskomstat, p. 141

According to Goskomstat data, nominal wages in the agricultural sector were close to the national average in 1990. Since then, wages in agriculture have increased in nominal terms, but increases have remained well behind those in other sectors of the economy. By 1999 the average nominal wage in agriculture had fallen to 41% of the national average, and this value was below 38% in the year 2000. This was about 1/3 of the respective indicator for food industry¹⁸.

Nonetheless, some positive trends are evident in farm profitability and purchasing power of the population during last years. In 1997, the share of loss-making agricultural enterprises was 88% while in 2000 it went down to 51%. There was some rise in agricultural investment in 2000 compared to 1999 (8.8% in constant prices). In 2000, 74.2% of all investments were own funds

¹⁸ Agro-Industrial Complex of Russia, 2001 page 57

of agricultural enterprises, the share of federal budget was 8.5%, and regional budgets – 9.5%. Further growth of agro-industrial investment is taking place in 2001.

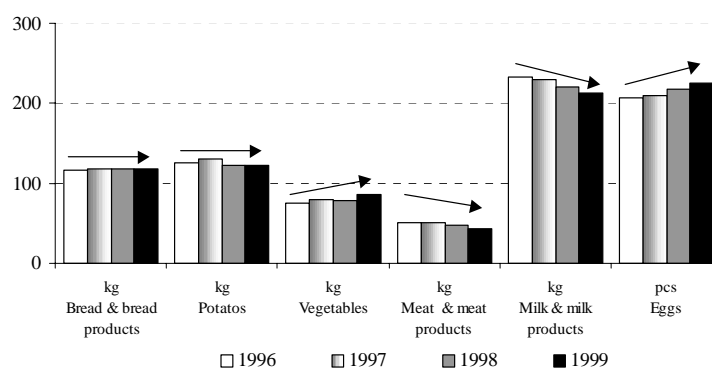
It should be noted that agricultural investment is financed not only by large and profitable agricultural and processing enterprises, but also by large businesses outside the agro-industrial complex (the investment of such capital into the agrarian sector is sometimes quite significant). Vertical integration leads to the establishment of agro-holdings and agro-companies. The number of new types of integrated agro-industrial entities is noticeably increasing.

Consumption

Due to the crisis in 1998, the purchasing power of wages has deteriorated to a significant degree. Wage arrears have also had a significant additional negative impact on the purchasing power of Russian consumers. These arrears were reported to amount to 2.7 monthly wages at the end of 1996 (3.3 in the agricultural sector), and by late 1998 this already severe situation worsened to approximately 3.5 monthly wages. However, this has subsequently improved, so that by mid-2000 it was estimated to amount to only 0.85 monthly wages. The fall in real incomes of Russian consumers has been reflected in changes in food consumption patterns. Consumption of bread, eggs, potatoes, and vegetables increased or stabilized. On the other hand, consumption of more expensive meat and dairy products decreased notably (**Figure 1.8**).

Consumption of bread products and potatoes in rural areas is slightly higher than the mean per capita consumption of such products in cities. However, the level of family income was a much more significant determinant of the per capita meat, milk, and egg consumption than of grain product consumption, reflecting the low income elasticity of the latter. The lowest decile income group of the population consumed only 13 kg. of meat per capita in 1999, while the highest decile income group consumed 93 kg. per capita. The corresponding figures for milk products were 71 and 328 kg; and for eggs 84 and 320 eggs. For grain products, the lowest decile consumed 65 kg., versus 173 kg. for the highest decile; for potatoes – 53 kg and 141 kg accordingly.¹⁹

Figure 1.8: Per Capita Food Consumption Development, 1996-99



Source: Goskomstat, Agriculture in Russia, 2000

The structure of expenditures on final consumption by rural households differs significantly from the structure of such expenditures in urban areas. Thus, expenditures of rural households on purchased foodstuffs in 1999 amounted to 39% of all final consumption expenditures while the share of in-kind food products was 28.3%. In cities, purchased foodstuffs

¹⁹ Social Status and Standard of Living of Russian Population, 2001, Goskomstat, pp. 144, 145

accounted for 49.1% of all household expenditures while the share of in-kind foodstuffs was 6.2%.²⁰

II. DEVELOPMENTS IN SELECTED AGRICULTURAL COMMODITY MARKETS

The major food sub-sectors are the grain, meat, and milk markets. These products all have a high share in retail foodstuffs turnover: in 2000 the share of meat and meat products was 18.3%, for bread products (including flour, groats and macaroni) it was 11.3%, and for milk products [without margarine] it was 9.3%.²¹ Of equal significance is the strategic and social importance of these markets. Because of the net grain deficit in the country in recent years, this sub-sector is now considered in terms of national security. Grain market issues are discussed at Kremlin meetings chaired by the President and Prime Minister. For regional authorities, the issue of bread availability and affordability is a major determinant in their ability to stay in political power. Bread products help meet up to 40% of daily food needs. Grain production provides about 10 million jobs and involves about 70 thousand enterprises and entities.²² The meat market sub-sector is of special concern because, despite all of the attempts to stop declines in meat production, the contraction continues. Per capita consumption has fallen dramatically in the transition period, which is an especially sensitive issue, given the historical emphasis given to meat consumption in pre-transition Russian society.

Trends in Grain Production and Marketing

Despite the general decrease in grain production in the 1990s, between 1996 and 1999 the share of food grains in total grain output actually increased. The share of wheat grew at the fastest rate among all food grains. In 1991-1995, wheat production amounted to 43% of grain output; in 1996-1999, this increased to 53%. In 2000, grain production increased to 65.5 million tons (including 34.5 million tons of wheat), and gross yield in 2001 amounted to 82.5 million tons, which is 1.5 times higher than the 1999 level, but lower than the 1997 level.

The growth of food grains in the share of overall crop production was stimulated by the favorable increase of its prices as well as Russia's efforts to achieve grain self-sufficiency by relying on its own production capacities, which was aimed at supplying local populations with affordable bread products. This led to a shift from regional specialization in grain production to an agricultural multi-production. As a result, the level of productivity of grain production in some "non-specialized regions" is very low.

The production of fodder grains has been substantially reduced. From 1990 to 1994, the annual average production of fodder grains was 39 million tons. In comparison, from 1995 to 1999, fodder grain production averaged only 23 million tons. The share of fodder in total grain production in 1991-1995 was 41%, as compared to 34% in 1996-1999. The share of grain legumes dropped from 2.5% to 1.3% during that period. But in 2000, the share of grain legumes rose to 1.8% of total grain production.

²⁰ Social Status and Standard of Living of Russian Population, 2001, Goskomstat, page 136

²¹ Calculated on the basis of: Agro-Industrial Complex of Russia, 2001, p. 45

²² *Ekonomika selskokhoziaystvennykh i pererabatyvayuschikh predpriyatiy*, No.10, 2001, page 19

Most agricultural enterprises lack upgraded grain storage capacity. Only about half of all enterprises have any storage capacity to store grains for a long-term period. At the same time, existing storage facilities are being underutilized: 30% of agricultural enterprises surveyed by Goskomstat had some type of grain processing capacity, of which 30% of enterprises used less than 25% of their available capacity, and another 20% used between 25 and 50% of their available capacity.

The decrease in grain production volume has been accompanied by a decrease in the volume of marketed grain (**Table 1.7**). In 1991-1995, the average annual sale of grain amounted to 36.8 million tons compared to 30.4 million tons in 1996-1999. In 2000, the sale of grain was 32 million tons, or 48.8% of production volume.

Table 1.7: Volume and Structure of Grain Marketed in 1991 – 2000 (all types of agricultural entries)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Production/weight after cleaning (million tons)	89.1	106.9	99.1	81.3	63.4	69.3	88.6	47.9	54.7	65.5
Marketed (million tons)	36.9	40.9	41.9	35.8	28.3	30.2	39.1	25.2	26.5	32.0
%	100	100	100	100	100	100	100	100	100	100
Including										
Procurement organizations (purchases for the state)	62.3	63.9	63.1	33.5	27.8	25.7	25.1	12.2	18.5	16.9
Processing enterprises, wholesale trade, retail trade outlets	13.8	13.1	12.4	25.6	30.0	28.7	26.4	28.6	26.0	31.9
Consumer cooperatives	0.5	0.3	0.2	0.1	0.1	--	0.1	0.2	0.4	0.2
Population (payments in kind, public catering)	22.0	20.2	21.0	31.2	29.0	26.4	23.2	28.1	25.3	21.6
Barter	1.4	2.2	3.3	9.6	13.1	19.2	25.2	30.9	29.8	29.4

One of the main trends on the domestic grain market is the reduction of the domestic grain market capacity. The share of production sold through market channels fell from 76.6% in 1991 to 44.9% in 1999. Consequently, marketing in-kind (including barter) increased from 23.4% in 1991 to 55.1% in 1999 (in 2000 – 51%).

As was widespread in the past, today most agricultural producers do not sell their grain production directly; instead they use grain to settle accounts with the suppliers of agricultural machinery, fuel, fertilizers, transport agencies, and workers of their own enterprises. The role of barter transactions has been growing: only 1.4% of all grains were marketed via barter transactions in 1991, compared to 30% in 1999. The share of other non-market channels (besides barter) of marketing (or the so-called “commodity credits” or “offsetting transactions”) has also increased. According to the Goskomstat survey of the 639 agro-industrial enterprises conducted in 1999, various forms of payments were used by the grain market participants (see **Table 1.8**).

Table 1.8: Forms of Payments on the Grain Market (in % of the number of surveyed enterprises), 1999

	Agricultural Enterprise	Procurement Organization	Grain Processing Enterprise
Credit Payment	20.8	41.8	41.2
Payment in Cash	33.9	22.4	27.3
Barter, offsetting transactions	40.4	29.8	26.2
Financial Instruments	4.9	6.0	5.3

Barter and other offsetting transactions are the most common type of transaction used by agricultural enterprises (40.4% of all payments). Transactions by procurement organizations were carried out by about 30% in the form of barter and offsetting transactions. Conventional banking transactions (credit or other instruments) were used by agricultural enterprises for only 25.7% of all payments. In some regions the share of barter and other offsetting transactions is much higher than 40%. Regions abundant with grain supplies tend to have a higher share of marketable grain in the form of offsetting transactions.

The second main trend is the substantial reduction in sales of grains to procurement organizations due to the termination of the mandatory system of grain procurement. In 1991, agricultural producers sold 64% of all marketable grain to procurement organizations; in 2000 agricultural producers sold only 16.9% to such organizations. Demonopolization of the procurement system is a positive step, which allows other agro-industrial sub-sectors to increase their share in procurement. The share of processing and wholesale trade organizations is steadily increasing in the total volume of marketed grain. At the same time, the agricultural producers' shift to these grain market channels does not automatically promote an expansion of monetary operations. In addition, the number of intermediaries is high. The average number of resales involving intermediaries from the initial production stage to wholesale enterprises is about two or three. The further marketing of grain also goes through several intermediaries, increasing the costs paid by the final consumer.

Another characteristic feature that shapes the grain market is the regional isolation of the grain market. There is the lack of any significant development of inter-regional grain transactions. In 1999, the share of grain sales outside of the production region amounted to 2.4% of the total grain sales. Thus, almost all grains were marketed on the territories in proximity to production sites. This trend is caused by: (a) the existence of regional trade barriers; (b) lack of adequate infrastructure (specifically, grain exchanges in both grain surplus and grain deficit regions); and (c) the existence of a well-developed shadow grain market. According to some assessments, the share of the shadow grain market is about 30% of its total volume.²³ The existence of this shadow grain market is strongly supported by the December 1999 Goskomstat survey of 639 enterprises. According to this survey, for the 52.7% of the surveyed farm managers the determining factor in choosing a buyer was an opportunity to sell farm products either for cash or through barter. These cash and barter transactions are aimed at reducing tax liabilities, and contribute to the decrease in revenues of agricultural producers since they are not able to receive "the full price." This is also one of the reasons for the much slower growth in farm-gate prices compared to wholesale prices.

²³ *Ekonomika sel'skokhoziyaystvennykh i pererabatyvayuschikh predpriyatiy*, No.10, 2001, page 15

A further trend in grain market development is the decrease in profitability of grain production and marketing. This decrease occurred because of the growth in operating costs that have significantly outpaced the growth of revenues received from grain sales (see **Table 1.9**). However, this trend was reversed in 1999, at least partially as a result of the devaluation (and resultant increase in farm-gate prices) and good weather conditions.

Table 1.9: Financial Indicators of Grain Marketing

	1995	1996	1997	1998	1999
Costs of marketed grain (Rubles per ton)	210	450	500	630	850
Price of marketed grain (Rubles per ton)	300	590	570	520	1260
Profitability (the ratio of profit to costs, %)	43	32	15	-19	49
Profitability (taking into account budget subsidies and compensations, %)	55	42	24	.04	56

Source: Goskomstat

The market mechanisms for price formation do not function normally in grain markets in Russia. Barter, regional separatism, commodity credits, various offsetting transactions, numerous intermediaries, and food aid programs all contribute to the distortion of market signals. In 1992, following price liberalization, the profitability ratio of grain sold by agricultural enterprises exceeded 300% (with budget subsidies). However, the profitability ratio decreased substantially in the years following due to regional trade barriers, undeveloped market infrastructure, and the introduction of bread price ceilings in many regions. In 1993, the profitability ratio decreased to 190%, and in 1994 to 59% (it was 184% in 1993, and 51% in 1994 without subsidies). Between 1998 and 1999, farm gate prices for grains grew by 68% (including a 78% growth of wheat prices), and consumer prices for bread grew by 70.2%, apparently indicating that in many regions after the crisis, the local administrative price restrictions were relaxed even more than they were in 1994.

Another trend in grain markets (that was in place until 2000) is the decrease in the availability of grain resources. However, the utilization of grain resources has become more efficient and productive, with smaller losses. The volume of grain resources has substantially diminished due to the decrease in grain production as well as the decrease in imports (see **Table 1.10**). In the early 1990s, Russia imported between 17 and 21 million tons of grain on an annual basis. Grain imports steadily decreased from 1993 through 1998. However, grain imports increased by four times in 1999, when compared to grain imports in 1998, largely due to food aid programs. The share of grain imports increased as a percentage of the total grain resources from 1.5% in 1998 (about 3% in 1995-97) to 7% in 1999. The share of imports went down to 4.7% in 2000, still significantly less than in the pre-reform period. Besides, the utilization of grain for processing, seeds, and forage, was substantially reduced causing a reduction in import dependence (see **Table 1.10**).

Table 1.10: Grain Resources and their Utilization (millions of tons)

	1990	1995	1996	1997	1998	1999	2000
Production	116.7	63.4	69.3	88.6	47.9	54.7	65.5
Imports	19.9	4.2	3.6	3.3	1.7	6.9	4.8
Opening Stocks	<i>n.a.</i>	70.9	47.9	46.7	60.8	35.8	31.7
Total Resources	<i>n.a.</i>	138.5	120.8	138.6	110.4	97.4	102.0
Utilization							
Seeds	17.0	15.6	14.0	14.0	13.8	12.4	11.5
Forage	13.5	14.5	13.6	13.7	12.7	11.3	10.9
Processing for Food and Grain	94.7	56.5	44.8	46.9	44.8	41.7	40.8
Losses	2.4	1.4	1.1	1.1	1.0	0.8	0.9
Exports	2.0	2.5	0.6	2.2	2.2	0.9	1.2
Closing Stocks	<i>n.a.</i>	47.9	46.7	60.8	35.8	30.3	36.7

n/a: not available

Source: Goskomstat

The task given to the MOA management over the last years – to make Russia a great grain power - can hardly be implemented through public control and regulation of the grain market by making the state a large wholesale grain purchaser. International experience indicates that it is inefficient for the state to ‘physically’ participate in grain procurement to maintain stable prices. A better option is to reduce grain sale by agricultural enterprises in the autumn-- and thereby reduce the magnitude of the resultant seasonal drop in prices -- through measures such as the reduction of regional trade barriers, dissemination of price and market information, establishment of grain exchanges, and the use of budget allocations for grain interventions as seasonal credits to grain producers (similar to the arrangements of the US Commodity Credit Corporation).

Trends in Meat Production and Marketing

Throughout the transition period, the high level of import competitiveness and the low purchasing power of the population have reduced the profitability of meat production (meat is a good with a high income elasticity relative to other foods, so demand has fallen more than for other food products). As a consequence, the meat market has been narrowing due to the decrease in meat production and a reduction in the amount of meat marketed off-farm. Total meat production was 9.4 million tons in 1991, compared to 5.8 million tons in 1995, and 4.5 million tons in 2000. Thus, meat production fell by more than half between 1991 to 2000 (see **Table 1.11**). The share of meat products marketed via procurement organizations has been decreasing too. In 1995, 55% of all cattle and poultry were marketed through procurement organizations, compared with only 32.5% in 2000. The ratio of meat and poultry products marketed off-farm to the total output of these products (marketability) has been decreasing from 64.5% in 1995, to 57.4% in 2000. The volume of meat sales outside of meat producing regions (sales to other regions) has also decreased. In 1999 plagues affecting cattle and poultry reduced both their numbers and their daily weight increases. The total volume of meat resources fell from 11.85 million tons in 1991 to 6.8 million tons in 2000. The share of imported meat in total meat resources increased from 12.8% in 1991 to 35.5% in 1997. Due to the August 1998 economic crisis, the share of imported meat decreased to 29.3% in 1998. This trend continued in 2000 when the share of imported meat dropped to 25.7%. Traditionally the level of meat exports has

been quite small. This level declined greatly during the transition - 23,000 tons in 2000, compared to 92,000 tons in 1991.

The growth in farm-gate prices for cattle and poultry in 1999 substantially outpaced the growth in consumer prices for meat and poultry, which grew by approximately 40%. As a result, in 1999, although meat production remained unprofitable even when taking into account budget subsidies and donations, the level of unprofitability decreased. Profitability of cattle production was minus 54% in 1998 compared to minus 24% in 1999 and minus 33% in 2000; for pork production it was minus 29% in 1998 and minus 21% in 2000; and for poultry production it was minus 12% in 1998 and minus 4% in 2000.

Despite the more positive trend in prices and relatively high rates of protection (see **Chapter 2**), the negative trends in Russian livestock production have continued in 1999 and 2000. Due to a low supply of forage, slaughtering of cattle was common. Farmers have no funds to purchase highly productive cattle, mixed fodder, and fodder mixes. Forced slaughter of cattle due to the lack of fodder has caused a decrease in the average weight of a sold carcass and a reduction in the average meat output per head. The estimated meat losses averaged between 30 and 35 kg. per head (slaughter weight). To preserve breeding cows, herds of milk cows have also been reduced.

Table 1.11: Meat Products Balance (thousand tons)

	1990	1991	1995	1996	1997	1998	1999	2000
Resources								
Opening stocks	912	954	1030	795	617	953	766	560
Production	10112	9375	5796	5336	4873	4703	4313	4457
Imports	1578	1521	2250	2113	2995	2348	2126	1738
Total	12602	11850	9076	8244	8485	8004	7205	6755
Use								
Non-food use	320	346	135	102	96	98	68	52
Losses	71	104	46	42	34	38	20	13
Exports	62	92	13	35	44	22	17	23
Human consumption	11113	10313	8087	7448	7359	7080	6540	6218
Closing stocks	954	995	795	617	953	766	560	449
Total	12602	11850	9076	8244	8485	8004	7205	6755
Per capital consumption	75	69	55	51	50	48	45	<i>n.a.</i>

Source: Goskomstat

Milk and Egg Production and Marketing

The production and marketing of milk has been decreasing: total milk resources fell from 67 million tons in 1990 to 37.6 million tons in 2000 (see **Table 1.12**). Total milk marketed by all farms was 20.9 million tons in 1995, compared to 16.1 million tons in 2000. The share of state milk purchases in the total volume of marketed milk was reduced from 76.6% in 1995 to 62.7% in 2000.

Table 1.12: Milk Products Balance (thousand tons)

	1990	1991	1995	1996	1997	1998	1999	2000
Resources								
Opening stocks	3453	2265	1813	2426	1331	1403	1195	1322
Production	55715	51887	39241	35819	34136	33255	32274	32046
Imports	8000	6851	6317	4530	6290	4944	4718	4187
Total	67168	61003	47371	42775	41757	39602	38187	37555
Use								
Non-food use	7270	7371	7057	6667	6352	5779	5295	4766
Losses	70	69	61	51	43	44	34	37
Exports	330	144	396	490	232	330	208	407
Human consumption	57233	51498	37431	34236	33727	32254	31328	31161
Closing stocks	2265	1921	2426	1331	1403	1195	1322	1184
Total	67168	61003	47371	42775	41757	39602	38187	37555
Per capita consumption	386	347	253	232	229	221	215	<i>n.a.</i>

Source: Goskomstat

The profitability of milk production amounted to 22% in 1999 compared to -28% in 1998, as a result of farm-gate price growth in nominal terms of 130%, while operating costs increased by only 29%. In 2000, the profitability of milk production was 13%.

The level of imported milk products dropped from 6.3 million tons in 1995 to 4.9 million tons in 1998, and to 4.2 million tons in 2000. The share of milk imports in the total milk resources fell from 13.3% in 1995 to 12.5% in 1998, and to 11.2% in 2000.

The production of eggs grew from 1996 to 1999; though the egg production level in 2000 was still 0.3% higher than the production level in 1995 (33.9 billion pieces in 2000 and 33.8 billion pieces in 1995). The profitability of egg production was 21% in 1998 and 20% in 1999, as the 73% increase in farm-gate prices approximately matched the increase in production costs. Egg consumer prices grew 2.8 times in 1998 compared to only 0.6% in 1999. In 2000, farm-gate prices increased by 13% and the production costs by 23%; as a result, the profitability of egg production decreased again to 12%.

It is worth noting that, notwithstanding falling production, productivity per animal has increased for milk and eggs at the end of the 1990s. Fertility rates have risen and (in common with grains) losses have declined over this period (see **Table 1.13**), at least partially as a result of the improved incentives for efficiency brought about by exposure to market price signals.

Table 1.13: Indicators of Selected Branches of Animal Husbandry, 1994 – 99 (agricultural enterprises)

		1994	1995	1997	1998	1999	2000
		<i>Average annual productivity</i>					
Milk per cow	[kg]	2033	2067	2066	2233	2282	2363
Eggs per hen	[pcs]	214	212	234	237	248	262
Wool per sheep	[kg]	3.0	2.7	2.9	2.7	2.9	3.2
		<i>Average live weight. per animal marketed</i>					
Cattle	[kg]	n.a.	n.a.	276	279	270	277
Pigs	[kg]	n.a.	n.a.	79	82	76	76
Sheep and goats	[kg]	n.a.	n.a.	32	31	31	31
		<i>Average fertility rates per 100 "mothers"</i>					
Calves	[head]	72	73	72	74	76	77
Piglets	[head]	997	973	1029	1147	1218	1178
Lambs	[head]	60	56	61	63	67	74
		<i>Average losses</i>					
Cattle	[%]	6.1	6.0	5.5	5.0	4.2	3.9
Pigs	[%]	15.1	15.5	12.7	11.6	11.5	11.3
Sheep and goats	[%]	13.7	14.4	11.6	10.2	8.6	7.3

Trends in the Potato Market

The potato market has changed little during the transition period. Production increased from 30.8 million tons in 1990 to 34 million tons in 2000. Imports and exports of potatoes are very low (less than 1%). Human consumption increased from 15.7 million tons in 1990 to 17 million tons in 1999. Per capita consumption grew from 106 kg to 117 kg during this period. This is twice as much as is consumed in the US, and most European countries. This is not only a tradition (potatoes always were called the “second bread” of Russia), but it is also an attempt to substitute potatoes for more expensive, unaffordable foodstuffs. While overall production has remained almost constant, the patterns have changed substantially, with most potatoes now produced by household plots (92% in 2000, compared to 66% in 1990). This production is primarily targeted for personal (mostly human) consumption. Thus, the level of marketability of the total potato production was only 11% in 1999 and 2000, the lowest among all the main agricultural commodities.

Chapter 2: Agricultural Pricing, Trade, and Incentives Policy

Alberto Valdes, Holger Kray, and Vera Matusevich¹

I. INTRODUCTION

The key to making Russian agriculture internationally competitive is to enhance its efficiency. An important step in meeting this objective is to identify policy instruments that will facilitate the necessary adjustments in agriculture and agro-industry. This will create an agricultural sector flexible enough to adjust cropping patterns in response to price signals, as well as adjustments in the processing industries, input delivery system and product marketing, for both domestic and foreign markets. Underlying this adjustment process lies a much broader set of conditions that constitute the economy-wide reform program. These include infrastructure development, transport, training and education, flexible factor markets (particularly land, finance and labor), and policy consistency.

While these other conditions are necessary ingredients, trade and pricing policies are critical elements in this reform process. Importantly, in the context of an economy increasingly open towards world markets, private investment will only be attracted to the sector if farming and agro-processing are made profitable, guided by a credible and consistent trade and pricing policy framework that helps to integrate agriculture more fully with international markets. Instability in trade and price interventions, high levels of agricultural support and significant disparities in support levels among agricultural activities all hinder the development of a flexible and competitive agricultural sector.

The forthcoming WTO multilateral negotiations on agriculture offer an invaluable opportunity to reduce protectionism and distortions in agricultural markets around the world, thereby furthering the process of agricultural trade liberalization begun under the Uruguay Round Agreement. In the context of Russia's eventual accession to the WTO, such a reform process is particularly important for Russia, which has much to gain through greater access to OECD and developing countries' markets and from reduced competition with subsidized exports. In preparation for accession to the WTO, Russia may want to intensify its structural adjustment process in order to improve the economic efficiency of their agricultural sector, as well as addressing other domestic policy issues such as food quality and safety, environmental protection, rural development, and so on.

This chapter focuses on government's pricing policies and trade policies, which influence prices directly. These form the price signals to producers on the basis of which they make decisions regarding in what quantities, and how, to use inputs and produce outputs. Section II is

¹ This chapter was written by Alberto Valdes and Holger Kray, with the exception of Section V, on food aid, which was written by Vera Matusevich.

an overview of the kinds of instruments used by the Russian government and the current policy regime. Section III quantifies the effects of these policies, and shows how they change the incentive framework at both the national and regional levels. Section IV discusses the current status of Russia's accession process to the WTO, and the implications of the Uruguay Round agreements and the probable future round of negotiations.² Section V addresses issues associated with the recent food aid programs, and their effects on the incentive framework for agricultural production. Section VI draws conclusions and makes some recommendations.

II. MAIN INSTRUMENTS OF AGRICULTURAL POLICY: 1998-2000³

With respect to foreign trade, the Russian federal government remains committed to implementing a fairly liberal trade environment for agriculture. However, even though by the end of the 1990s Russia had achieved the basic elements of a market-based agricultural sector, the OECD has concluded that "... in 1999 agriculture (in Russia) is still not considered to be part of a market economy. The government continues to issue decrees on the urgent measures to ensure (for example) spring sowing and bringing in the harvest, and on measures to provide agricultural producers with pesticides and fertilizers."⁴ This same study reports various types of directed subsidies provided by the local and federal authorities, in which government officials decide how and where the funds are used. Overall, an interventionist and highly discretionary policy framework operates - and this is not conducive to enhancing farm restructuring and the efficient allocation of agricultural resources.

The main instruments used by the federal government are⁵:

- reductions in input costs; e.g. direct reimbursement to producers, payments for some inputs with implied credit subsidies, regulated prices and subsidies for some inputs such as fertilizers and electricity;
- product subsidies, mainly for livestock products;
- subsidized and directed credit to agricultural producers;
- agricultural debt write-offs;
- border protection, albeit at modest levels;
- special procedures for privatization of processing and marketing entities;
- continued state procurement for the food supply of certain consumers (army, northern territories, supply of food for the large cities) at reduced but still significant level; and
- public investments

² It is outside the purview of this paper to analyze, or make recommendations regarding the negotiating positions of Russia or its negotiating partners in WTO.

³ A good description of the evolution of agricultural policies in Russia from the early 1990s until 1999 can be found in OECD (1998), "Agricultural Policies in Emerging and Transition Economies – Monitoring and Evaluation 1998", Paris, a recent update by the OECD (2000), "Agricultural Policies in Emerging and Transition Economies", and E. Serova (2000), "Agriculture in the Russian Economy", in *Agricultural Support in Transition Economies*, Ed. by A. Valdes, World Bank Technical Paper No 470, Wash DC.

⁴ OECD (2000), "Agricultural Policies in Emerging and Transition Economies."

⁵ See E. Serova (2000), op. cit. where she reports the level of export duties and Russia's import duties for the principal food items.

Thus, there are numerous types of interventions, but the federal government often does not have the enforcement mechanisms nor the financial resources to implement the regulation of food markets in a manner consistent with the government's stated objectives, nor, for that matter, the adequate up-to-date data to implement such policies. In most cases the federal government's price data is quite inadequate.

But federal policies are only part of the story. As discussed in the analysis by E. Serova (2000) on budget support, there has been a dramatic shift from federal to sub-federal policies. Trying to obtain a clear picture of the overall level and composition of federal and regional support is difficult because of the considerable use of indirect and non-transparent measures of support, such as tax privileges and debt write-offs, as well as the large part of the sector that lies in the informal economy, and the generally poor statistics.

E. Serova's (2000) assessment indicates that sub-federal government budget outlays amount to approximately 70% of the consolidated budget support to agriculture. Furthermore, as discussed in V. Vitalis (1999), there is ample evidence of price interventions and subsidies provided by local governments. Russia's regions have put measures in place which are expressly forbidden under WTO rules.⁶ For example in 1994-95, regional custom duties were introduced in some territories in addition to nation-wide import tariffs. At the same time, a number of provinces restricted exports of farm produce and food products beyond the confines of their regions. These inter-regional trade barriers diminished between 1995 and 1998, but it is our understanding that many of them were reinstated after the August 1998 crisis.

More important than the volume of transfers to agriculture is the fact that the existing system of subsidizing the agricultural sector remains inefficient. Rather than being designed to create links between farmers and the private providers of credit, inputs, and services, the subsidies crowd out the private sector and preserve the old network of reliance on the state. This is the case, for example, with: (a) agricultural debt write-offs which worsen financial discipline and discourage the development of an agricultural commercial lending system; (b) tax legislation which is cumbersome and frequently changed, exemplified by the wide array of about 10 local and federal taxes, with markedly different effective rates of taxation on enterprises of different legal forms; and (c) a Soft Lending Fund (until 2001), which provided credit to agriculture at highly subsidized rates and discouraged the establishment of private lending institutions in rural areas; (d) a Leasing Fund, which also inhibits the development of private commercial leasing in agribusiness. A significant part of public subsidies to agriculture tends to discourage the establishment of market institutions, and the share of these subsidies in total expenditures on agribusiness is growing.

Furthermore, these subsidies appear to be growing in relative terms. The volume of directed subsidies in 2000 was almost double that of 1999. In focusing on agricultural policies for the next decade, the process of preparing for WTO accession offers a unique opportunity to strengthen the coordination between federal and regional policies.

⁶ V. Vitalis (1999), "Agricultural Support and Trade Distorting Measures at the Sub-Federal Level in the Russian Federation", Moscow, New Zealand Embassy.

Finally, it would be relevant to mention at this point that while macro-economic policies are not directed at specific sectors, they do, nevertheless, have a strong influence on agricultural incentives. This is particularly the case with regard to exchange and interest rates. We can see a clear example of this with the impact of the ruble's appreciation during the mid-1990s and the impact of the 1998 devaluation of the ruble, which are both well recognized in Russia now. In June 2000 the World Bank was informed that, according to recent estimates, agricultural producers gained about 40 billion rubles as result of the 1998 devaluation.

III. QUANTITATIVE ANALYSIS OF TRADE AND PRICING POLICIES: LONG-TERM TRENDS AND REGIONAL DIMENSIONS

This Section presents a quantitative analysis of the incentive framework for agriculture focused on price and trade related interventions, both at the federal and at the regional level, covering the principal agricultural products for 1999. This profile of incentives is complemented later in the text with an analysis of budget support to the sector, indicating that recent trends suggest that currently in Russia the bulk of agricultural support is channeled through budget support – provided primarily by sub-federal government agencies.

In the Russian Federation (as in other countries in the region) the debate over agricultural support policies has often focused on the degree of parity between input and output prices, and its evolution/growth in the process of price liberalization.⁷ The price parity deterioration was often used as a justification for establishing or increasing agricultural subsidies. This position neglects to take into account that a comparison with the price situation at a base period fails to capture the misalignments of policies and incentives in the base period.

Prices paid for inputs, or received for outputs, should be similar to the real value of those goods to the economy as a whole; for (internationally) tradable products, prices close to world market prices reflect these “real values” for goods. Therefore, our quantitative analysis of the incentive structure in the Russian agro-food sector is based on two well recognized indicators of support, namely the nominal and the effective rates of protection (NRP and ERP, respectively), which compare actual prices and farm income (value added) to those that would prevail in the absence of current policies and market interventions. A more detailed explanation of our approaches is provided in **Box 2.1** and **Annex 2**.

A new element of our analysis that is intended to contribute to a better understanding of the current agriculture support system in Russia is its disaggregation into 11 regional units, each of them comprising a number of Russian oblasts (for details see **Figure 2.1** and **Annex 2**). Whereas other studies on this subject analyze some selected oblasts or assess agricultural protection for all of Russia as one homogenous and geographically undifferentiated market, the analyses presented hereinafter capture specific groups of regions.

⁷ As has been shown in Chapter 1, a deterioration of the domestic price parity was also observed for Russia during the 1990s (deteriorating purchasing power of outputs, such as grain, relative to inputs, such as fertilizers).

Box 2.1: Measures of Protection

The **Nominal Rate of Protection (NRP)** is the simplest and easiest measurable indicator of price distortions. It serves as a summary indicator for all actions with regard to taxation and subsidization, causing domestic and international prices⁸ (which represent the value to society—the “social price”) to differ from each other. Thus, it can be used to identify (dis-)incentives to local producers. It is computed based on the ratio of the domestic price (p_i^D) of a tradable commodity i to its border price equivalent (p_i^B):

$$\text{NRP}_i \text{ in } \% = \left(\frac{p_i^D}{p_i^B} - 1 \right) * 100$$

Thus,

- if $\text{NRP} > 0\%$, the actual market price is above the social price, implying an implicit protection of producers and taxation of consumers.
- if $\text{NRP} < 0\%$, the actual market price is lower than the social price, implying an implicit taxation of producers and subsidization of consumers;
- if $\text{NRP} = 0\%$, the coefficient implies a neutral structure of net incentives.

The **Effective Rate of Protection (ERP)** is an extension to the nominal protection concept. This extension includes the combined effects of price distortions on output and input markets. For instance, it is possible that domestic prices on output markets are implicitly taxed, but input use is implicitly subsidized, the effective protection concept measures the aggregate impact of all underlying influences on the producer (production factors). The ERP is computed on basis of the ratio of value-added in the production of i measured at domestic prices (VA_i^D) over such value-added at border prices (VA_i^B) (the coefficient a_{ij} is a technical coefficient, indicating the level of the use of the intermediate factor j per unit of production of output i):

$$\text{ERP}_i \text{ in } \% = \left(\frac{VA_i^D}{VA_i^B} - 1 \right) * 100 = \left(\frac{p_i^D - \sum_j a_{ij} p_j^D}{p_i^B - \sum_j a_{ij} p_j^B} - 1 \right) * 100,$$

Thus,

- if $\text{ERP} > 0\%$, it implies a direct protection of domestic producers of the commodity i . This results in positive incentives for producers of the commodity, since they receive higher returns on their resources.
- if $\text{ERP} < 0\%$, it implies underlying disincentives to domestic producers of the commodity i . Domestic producers will only remain in the activity if they produce more efficiently than foreign producers.
- if $\text{ERP} = 0\%$, it implies a neutral structure of net incentives.



It is very important to note that the support indicated by these indicators, when positive and referred to as “implicit subsidization” does not necessarily imply explicit government expenditure. And negative indicators, referred to as “implicit taxation,” do not necessarily imply budget revenues, i.e. an explicit taxation.

⁸ It is common practice to use adapted (imputed) prices – the so called “border price equivalents” or “reference prices” – as the international ones.

Figure 2.1: Regional Clusters for Analysis of Agricultural Protection

As in previous studies on this subject, to correctly interpret these results requires that the following points be kept in mind:

- The values reported for the various indicators should be interpreted as a rough order of magnitude and not as highly accurate figures. Even though the authors have been most likely provided with the best data available, the statistical basis for analytical work on Russian agriculture is still quite weak. Despite the fact that the analyses carried out in this section of the report have become a standard for many countries in the region, there are still major gaps in data availability⁹ and thus it was necessary to apply approximations. Furthermore, an analytical exercise for such large and heterogeneous markets as Russia can only provide rough estimates of the markets' reality, because, among other reasons, analysts can only roughly anticipate the broad variety of product qualities traded on one single market;
- When positive and referred to as "implicit subsidization" the indicators do not necessarily imply explicit government expenditure, just as negative indicators, referred to as "implicit taxation," do not necessarily imply budget revenues, i.e. an explicit taxation. Indeed, the total divergences between domestic prices and their border price equivalents are the aggregate result of: a) effects of domestic policies; and, b) the effects of market failure (or market imperfection)¹⁰. Even in a framework of price support policies, observed domestic prices can be found to be below border equivalence prices, if primary producers are discriminated against by the current market structure. As an illustration, take the example of rye grain, which is a net-imported commodity. Even if it has no direct price subsidies in place, the Federal Government imposes an import tariff of 5% on all imports of rye, which raises the domestic price received by producers. Nevertheless, the implicit (net) tax to domestic producers of rye prices in 1999 on Russia's domestic market¹¹ (negative NPR) is likely to be the result of structural failures, i.e. imperfect markets in the regions of Russia.

⁹ Data needed include regular and reliable observations on farm gate -, wholesale -, retail -, and border prices of agricultural and food industry products as well as transport and processing margins, wholesale prices, input prices, input use, and detailed information on federal and regional instruments of agricultural and trade policy.

¹⁰ In this context it might, of course, be discussed to which extent market failures are the result of (existing or missing) policy interventions.

¹¹ The analysis revealed that rye grain prices on domestic markets in 1999 were 13% lower than their border price equivalents. It should be noted that OECD estimates indicate that for most years, domestic rye prices have been above border prices.

Results of Quantitative Analyses¹²

*Although some livestock products enjoyed positive nominal protection, on average, Russian primary producers of major commodities received prices that are lower than international reference prices...*¹³

This finding of Valdes (2000)¹⁴ for the years 1994-97 could be affirmed for 1999 by examining the profile of nominal protection (NRP) from a federal perspective. For all crops and for milk, moderate but negative levels of nominal protection were revealed. However, a certain negative correlation between Russia's integration into international trade in agricultural commodities and the degree of implicit taxation of product prices seems to prevail. For those crop products in which Russia trades larger total amounts (wheat, sunflower seed) domestic farm prices are very close to the border equivalent price for those commodities. In fact domestic prices were 3.8% and 0.6%, respectively, below their international reference prices (see **Table 2.1**); which can be considered an insignificant difference. Conversely, producers of commodities such as barley, rye, and oats received prices 8%, 13%, or almost 15% below their corresponding international reference prices – these products were implicitly taxed to a much higher degree. On the other hand, our analysis revealed an implicit subsidization of livestock related activities such as cattle and pig finishing¹⁵.

From a regional perspective, the analysis of nominal protection of outputs revealed a significant differences in the levels of protection across regions¹⁶ for all products. These differences are more pronounced for crops than for livestock products. For import-competing crops, the effects of current policies and market structure translate into an implicit taxation of product prices in all regions, whereas paradoxically prices for exportables - barley and sunflower

¹² An important caveat to the conclusions of this section is that the analysis is based on 1999, the year following a significant macro-economic crisis and devaluation, which sharply raised border prices in ruble terms. Tariffs were also reduced in the period 1998-99. Both of these effects tend to lower the NRP estimates. The results should not be automatically generalized to subsequent years.

¹³ When reviewing this section, it should be taken into account that poultry production was not included in the analysis, while poultry is one of the most heavily supported products in Russian agriculture. Nevertheless, the share of poultry in gross agricultural output is about 5%, therefore, the level of support of this sub-sector does not have a very significant impact on the general conclusions of this section.

¹⁴ Alberto Valdes, ed., *Agricultural Support Policies in Transition Economies*, The World Bank, 2000.

¹⁵ All livestock production activities are computed on the basis of live weight equivalents. Conceptually, the estimates for livestock may be less reliable than those for crop activities, since the definition of comparators is more difficult than in trades with clearly standardized products. Furthermore, potentially incomplete data on the quality of the traded product may add to certain analytical weaknesses. In particular in the following sections on regional protection, single digit rates should be interpreted as 'almost no protection' rather than 'protection of x%'.

¹⁶ If not stated otherwise, all results, indicators and averages presented in this section do not include the 'Far East' region. As can be seen from **Table 2.1** the price statistics for this region show large differences from those of other regions, for outputs as well as for inputs. A main reason might be that the price records for this region were only obtained from one or two oblast and furthermore were only available for some months of the year. For almost all commodities the prices recorded for the Far East region are significantly above the average of the other regions and even exceed the second highest price by often more than 50%. As examples take the prices of pigs (44661RUR/t; average 25953RUR/t), milk (5240RUR/t; average 3190RUR/t) or barley (1867RUR/t; average 1279 RUR/t). This variation was even more distinct for tradable inputs.

seed - were higher than their border price equivalents in almost half of the regions. On average (for all crops), the lowest levels of taxation were observed in the Central region, the Northern Caucasus region and the Ural region. Interestingly, the average levels of implicit taxation were found to be higher in the main production regions, i.e., Volga-Vyatka, Central-Chernozym, Povolzhye, and the Western Siberian Region.

In this context it is important to note that the available price statistics disaggregated those shares of the produce traded on regular regional markets and those shares subject to state procurement (e.g., through the commodity credit program). Since the latter is partially financed from the State budget and subject to an explicit subsidy mechanism, its inclusion in the analysis of agricultural protection would “artificially” reduce the levels of domestic prices and thus bias the derived rates of nominal (and effective) protection.

... but for most of their purchased inputs they also pay prices that are lower than international reference prices.

As a further step to examine the impact of current policies and market structure on net returns to primary producers¹⁷, the analysis is extended to cover the effect of price and trade policy on the domestic price of tradable inputs (e.g. purchased inputs) used by producers in the various activities examined. This requires estimates of the nominal protection of purchased inputs for agriculture¹⁷. As illustrated in **Table 2.2**, at the federal level, all inputs to crop production have negative NRPs. The mineral fertilizers nitrogen (as N₂-equivalent), phosphate (P₂O₅), and potash (K₂O) are, on average, available to domestic producers at prices which are lower than the corresponding border price equivalents (by 22%, 5%, and 45%, respectively).

From a regional perspective, the nominal protection for mineral fertilizers varies significantly. Interestingly, the variation is most pronounced for phosphorus fertilizers. In regard to all mineral fertilizers, the nominal subsidization of fertilizer consumption is the highest in the western-most regions. These are also the regions where the majority of fertilizer producers are located. This price effect might either be due to favorable market-determined prices in close proximity of the production facilities (fewer intermediaries and lower transport costs), or perhaps as the result of regional policies that favor the use of mineral fertilizers from regional producers (some sort of indirect subsidy provided by these regional governments that lowers the price of locally produced fertilizers).

On average at the national level, domestic prices for feed used in livestock activities were close to their border equivalents. Our estimates suggest a slight subsidy, in the order of 2.2% in the case of feed for milk cows, 3.5% in the case of feed for cattle fattening, and 3.6% in the case of feed for pig fattening (see **Table 2.2**). This implicit subsidization is consistent with the fact that – as explained earlier in this section – the most important ingredients of commonly used feeding mixtures in Russian livestock husbandry (wheat, barley, oats and milk) had slightly

¹⁷ In this context, some words on the ‘reverse’ interpretation of the NRPs on tradable inputs have to be said. Since Russian farmers are consumers of these inputs rather than producers, positive NRPs on tradable inputs have to be interpreted as discrimination (implicit taxation) against farmers, whereas negative NRPs indicate a protection of farmers ‘consuming’ this particular input or input-mix.

negative rates of nominal protection¹⁸. Across regions, the protection indicators for animal feed were found to be relatively similar. Since the implicit taxation and subsidization of the feed stuff ingredients partially (or even over-) compensate each other, the variability of protection rates is higher for those feeding mixtures that are made from a smaller number of agricultural raw products. As an example, the regional variation of pig feed (two components, mainly barley) is much more distinct than the one of milk feed (four components).

Differences among the NRPs of tradable inputs and their repercussions on agricultural producers might also be raised to explain comparative income differences:

- whereas diesel fuel prices are, on average, only about 4% lower than reference prices, electricity is implicitly subsidized by 35%. Comparing a livestock and a crop farmer, the former uses relatively much more electricity - relative to markets where these inputs are traded at reference prices, the livestock farmer enjoys a comparative advantage over the crop farmer¹⁹ - and hence subsidized electricity does not have a neutral effect among various activities, as it represents a stronger incentive for livestock farmers than for crop farmers;
- the findings on price wedges for plant nutrients in mineral fertilizers have implications for better understanding patterns of input use. First, artificially reduced prices of fertilizers create incentives for their more intensive use compared to what would prevail when priced at border equivalent prices. Although current fertilizer use is at very low levels compared with input use during the pre-reform period, farmers would use even less fertilizers if prices were to increase to border equivalent levels²⁰. Second, the decreased prices for plant nutrients also decreases the (shadow) value of organic fertilizers (e.g. manure from livestock activities), thereby reducing the total output value of those activities where organic fertilizers are a valuable by-product. Even if it may only be to a limited extent, and without making judgments on their particular importance, the implicit subsidization of mineral fertilizers favors the crop sector vis-a-vis the livestock sector

¹⁸ Conceptually, price divergences for animal feed were derived as a weighted mean of nominal protections of the individual feeding stuff ingredients. The weights were obtained from statistical information on the cost structure of the individual livestock activities

¹⁹ Even within the group of crop farmers, different effects by different implicit taxation of inputs are conceivable: for example, a farmer who owns drying and storage facilities is in an advantageous situation compared to a farmer who sells his grain directly, since those activities consume a high amount of electricity.

²⁰ Unless the fertilizer industry receives compensations in form of other (in-)direct subsidies, the implicit subsidization of fertilizer prices to farmers corresponds to an implicit taxation of the fertilizer industry.

Table 2.1: Results of Regional Analysis of Agricultural Value Added (VA) and Protection, Russian Federation, 1999

		Russian Federation	Northern	North-Western	Central	Volga-Vyatska	Central-Chernozem	Povolzhye	Northern Caucasus	Ural	Western Siberian	Eastern Siberian	Far East
Wheat	domestic price 99 [RUR/ton]	1,915	n.a.	n.a.	2,116	1,903	1,893	1,774	1,994	1,908	1,702	1,713	2,184
	reference price 99 [RUR/ton]	1,991	n.a.	n.a.	1,954	2,029	1,916	1,954	1,991	2,066	2,066	2,216	2,141
	NRP	-3.8	n.a.	n.a.	8.3	-6.2	-1.2	-9.2	0.1	-7.6	-17.6	-22.7	2.0
	VA @ domestic prices [RUR/ton]	1,367	n.a.	n.a.	1,545	1,323	1,353	1,256	1,451	1,359	1,163	1,165	1,425
	VA @ reference prices [RUR/ton]	1,365	n.a.	n.a.	1,330	1,400	1,295	1,330	1,365	1,435	1,435	1,575	1,505
	ERP	0.2	n.a.	n.a.	16.1	-5.5	4.4	-5.6	6.3	-5.3	-19.0	-26.0	-5.4
Rye	domestic price 99 [RUR/ton]	1,391	n.a.	n.a.	1,447	1,364	1,410	1,283	n.a.	1,227	1,352	1,457	n.a.
	reference price 99 [RUR/ton]	1,593	n.a.	n.a.	1,561	1,636	1,523	1,561	n.a.	1,673	1,673	1,823	n.a.
	NRP	-13.0	n.a.	n.a.	-7.3	-16.6	-7.4	-17.8	n.a.	-26.7	-19.2	-20.1	n.a.
	VA @ domestic prices [RUR/ton]	795	n.a.	n.a.	855	723	816	721	n.a.	665	726	798	n.a.
	VA @ reference prices [RUR/ton]	892	n.a.	n.a.	857	927	822	857	n.a.	962	962	1,101	n.a.
	ERP	-10.9	n.a.	n.a.	-0.2	-21.9	-0.7	-15.8	n.a.	-30.9	-24.5	-27.5	n.a.
Barley	domestic price 99 [RUR/ton]	1,279	n.a.	n.a.	1,445	1,327	995	1,178	1,336	1,281	1,062	1,230	1,367
	reference price 99 [RUR/ton]	1,338	n.a.	n.a.	1,375	1,300	1,413	1,375	1,338	1,263	1,263	1,113	1,188
	NRP	-4.4	n.a.	n.a.	5.1	2.1	-29.5	-14.3	-0.1	1.4	-15.9	10.6	57.2
	VA @ domestic prices [RUR/ton]	912	n.a.	n.a.	1,060	924	676	831	974	914	709	843	1,287
	VA @ reference prices [RUR/ton]	905	n.a.	n.a.	933	877	962	933	905	849	849	736	792
	ERP	0.7	n.a.	n.a.	13.6	5.4	-29.7	-11.0	7.6	7.7	-16.5	14.5	62.5
Oats	domestic price 99 [RUR/ton]	1,049	n.a.	1,078	1,202	927	827	1,025	1,103	1,037	1,025	1,050	1,336
	reference price 99 [RUR/ton]	1,231	n.a.	1,156	1,193	1,268	1,156	1,193	1,231	1,306	1,306	1,456	1,381
	NRP	-14.8	n.a.	-6.8	0.8	-26.9	-28.4	-14.1	-10.4	-20.6	-21.5	-27.8	-3.2
	VA @ domestic prices [RUR/ton]	702	n.a.	753	839	572	520	685	760	690	659	675	801
	VA @ reference prices [RUR/ton]	793	n.a.	724	759	828	724	759	793	862	862	1,001	932
	ERP	-11.6	n.a.	4.0	10.6	-30.9	-28.1	-9.7	-4.1	-20.0	-23.6	-32.6	-14.0
Sunflower	domestic price 99 [RUR/ton]	3,824	n.a.	n.a.	n.a.	n.a.	3,812	3,899	3,523	4,470	3,413	n.a.	n.a.
	reference price 99 [RUR/ton]	3,845	n.a.	n.a.	n.a.	n.a.	3,920	3,883	3,845	3,770	3,770	n.a.	n.a.
	NRP	-0.6	n.a.	n.a.	n.a.	n.a.	-2.8	0.4	-8.4	18.6	-0.5	n.a.	n.a.
	VA @ domestic prices [RUR/ton]	2,528	n.a.	n.a.	n.a.	n.a.	2,589	2,528	2,160	2,980	2,005	n.a.	n.a.
	VA @ reference prices [RUR/ton]	1,886	n.a.	n.a.	n.a.	n.a.	1,906	1,896	1,886	1,866	1,866	n.a.	n.a.
	ERP	34.0	n.a.	n.a.	n.a.	n.a.	35.8	33.3	14.5	59.7	7.4	n.a.	n.a.
Milk	domestic price 99 [RUR/ton l.w.]	3,190	3,665	3,200	3,273	2,643	2,739	2,788	2,778	3,288	2,800	3,303	3,240
	reference price 99 [RUR/ton l.w.]	3,346	3,383	3,271	3,308	3,383	3,271	3,308	3,346	3,421	3,421	3,571	3,496
	NRP	-4.6	8.3	-2.2	-1.0	-21.9	-16.2	-15.7	-17.0	-3.9	-18.1	-7.5	49.9
	VA @ domestic prices [RUR/ton l.w.]	1,030	1,374	1,143	991	623	625	689	666	1,145	744	1,244	2,695
	VA @ reference prices [RUR/ton l.w.]	1,196	1,221	1,128	1,043	1,114	1,107	1,217	1,211	1,275	1,400	1,600	1,320
	ERP	-13.8	12.5	1.3	-5.0	-44.1	-43.6	-43.4	-45.1	-10.2	-46.9	-22.2	104.2
Cattle	domestic price 99 [RUR/ton l.w.]	24,085.8	25,913.3	21,266.7	24,282.5	21,456.7	24,637.5	24,665.0	22,510.0	24,040.8	24,565.0	23,412.5	32,720.0
	reference price 99 [RUR/ton l.w.]	19,388.3	19,425.8	19,313.3	19,350.8	19,425.8	19,313.3	19,350.8	19,388.3	19,463.3	19,463.3	19,613.3	19,538.3
	NRP	24.2	33.4	10.1	25.5	10.5	27.6	27.5	16.1	23.5	26.2	19.4	67.5
	VA @ domestic prices [RUR/ton l.w.]	6,933.4	7,863.2	3,818.9	5,210.0	4,479.8	8,126.4	7,920.7	4,592.1	6,579.2	8,203.4	6,563.6	13,069.9
	VA @ reference prices [RUR/ton l.w.]	2,526.2	1,918.2	2,009.2	545.3	818.1	2,043.7	2,770.2	2,227.8	2,225.1	3,407.1	4,096.0	1,855.2
	ERP	174.5	309.9	90.1	855.4	447.6	297.6	185.9	106.1	195.7	140.8	60.2	604.5
Pigs	domestic price 99 [RUR/ton l.w.]	25,953.3	25,062.5	25,115.0	25,660.0	22,890.0	26,049.2	23,566.7	26,095.0	24,430.8	27,815.8	29,451.7	44,661.1
	reference price 99 [RUR/ton l.w.]	24,185.4	24,222.9	24,110.4	24,147.9	24,222.9	24,110.4	24,147.9	24,185.4	24,260.4	24,260.4	24,410.4	24,335.4
	NRP	7.3	3.5	4.2	6.3	-5.5	8.0	-2.4	7.9	0.7	14.7	20.7	83.5
	VA @ domestic prices [RUR/ton l.w.]	-2,164.5	-4,328.1	-3,972.2	-6,463.0	-6,310.8	2,111.1	-2,767.9	-3,923.9	-4,160.9	2,752.0	934.1	4,825.6
	VA @ reference prices [RUR/ton l.w.]	-3,964.6	-5,066.3	-4,854.7	-8,211.5	-9,271.0	-3,256.0	-1,411.6	-2,482.6	-1,193.6	1,884.3	1,884.3	-6,045.5
	ERP	45.4	14.6	18.2	21.3	31.9	164.8	-96.1	-58.1	-57.8	130.6	-50.4	179.8

Source: own estimation based on unpublished data

n.a.: not analyzed / not applicable

ton l.w.: ton of live weight

Table 2.2: Nominal Rates of Protection for Selected Inputs to Primary Production, 1999 [in %]

	Russian Federation	Northern	North-Western	Central	Volga-Vyatka	Central-Chernozym	Povolzhye	Northern Caucasus	Ural	Western Siberian	Eastern Siberian	Far East
Diesel fuel	-4.3	-7.0	-13.5	-8.0	8.7	-6.7	-11.2	-13.5	-6.5	5.7	13.4	18.3
Electricity	-35.4	-26.5	-41.8	-32.4	-43.0	-48.9	-17.4	-28.6	-49.5	-52.7	-13.7	-28.2
Nitrogen fertilizer ^a	-22.4	-33.6	-31.4	-26.8	-22.3	-13.4	-11.5	-28.5	-26.5	-16.3	-1.5	-1.8
Phosphor fertilizer ^a	-5.0	-30.9	-30.5	-3.7	0.6	-12.5	1.0	1.7	24.1	8.1	1.7	218.5
Potash fertilizer ^a	-45.3	-58.8	-47.3	-62.0	-29.0	-55.6	-39.7	-33.5	-42.1	-37.2	-39.8	14.7
Feed for milk cows ^b	-2.2	-2.2 ^c	-2.5	-2.5	-9.3	-8.8	-3.8	1.3	-1.2	-1.1	7.8	13.9
Feed for cattle ^b	-3.5	-3.5 ^c	-3.5 ^c	-3.5 ^c	-10.8	-9.2	-3.3	1.1	-1.9	-1.6	5.7	11.2
Feed for pigs ^b	-3.6	-3.6 ^c	-3.6 ^c	-3.6 ^c	-13.6	-16.1	2.2	10.1	5.8	5.8	24.2	29.8

^a computed on basis of farm-gate prices net of direct subsidies

^b computed as weighted mean value of NRPs of feed ingredients (e.g., grains, silage, milk)

^c some feed ingredients (e.g. wheat, barley, oats) could not be analyzed for these regions: NRPs for feed stuff have been set to average values for Russian Federation

Source: own calculations

Table 2.3: Value Added Relative to Total Revenue of Selected Agricultural Activities, 1999 [in %]

	Russian Federation	Northern	North-Western	Central	Volga-Vyatka	Central-Chernozym	Povolzhye	Northern Caucasus	Ural	Western Siberian	Eastern Siberian	Far East
Wheat	68.2	<i>n.a.</i>	<i>n.a.</i>	70.0	66.4	68.2	67.4	69.6	68.0	64.9	64.6	62.7
Rye	53.7	<i>n.a.</i>	<i>n.a.</i>	55.6	49.8	54.4	52.5	<i>n.a.</i>	50.5	50.3	51.6	<i>n.a.</i>
Barley	66.6	<i>n.a.</i>	<i>n.a.</i>	69.1	65.2	62.3	65.5	68.3	66.7	61.5	63.8	65.8
Oats	61.6	<i>n.a.</i>	64.5	64.9	56.2	56.7	61.5	63.8	61.2	59.1	59.2	56.2
Sunflower seed	66.1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	67.9	64.8	61.3	66.7	58.7	<i>n.a.</i>	<i>n.a.</i>
Milk	26.9	32.0	30.3	25.4	19.2	18.4	19.9	19.6	29.1	21.5	31.6	43.2
Cattle fattening	26.9	29.2	17.0	20.5	19.6	31.3	30.3	19.2	26.0	31.7	26.7	37.2
Pig fattening	(-7.4) [*]	(-16.1) [*]	(-14.6) [*]	(-23.1) [*]	(-25.0) [*]	7.4	(-10.6) [*]	(-13.8) [*]	(-15.5) [*]	9.1	3.0	9.8

REMARK: Total revenue is computed as value of main products plus value of by-products (e.g. milk production: main prod.: milk; by-prod.: cow, calves, manure).

(^{*}) Negative values because value added in these regions is negative, i.e. sum of tradable inputs exceeds total revenue. Absolute value indicates negative balance

$[(total\ revenue) - (cost\ of\ tradable\ inputs)]$ relative to $(total\ revenue)$.

n.a.: not analyzed / not applicable

Source: own calculations

Table 2.1 reports estimates of value added per unit of output during 1999, that is gross value of output minus purchased inputs, at the farm level. and **Table 2.3** reports value added levels relative to total revenues²¹. Whereas for most of the crop production activities value added accounts for slightly above 60% of total revenues (rye is the lowest with 53%), the value added from farming in the production of livestock is rather low, at around 20% of the gross value of output. The most extreme case is pig fattening, which according to our

estimates has a negative value added. This is an activity which consumes high levels of feedstuff per unit of output, and the estimates indicate that the total cost of the purchased inputs is worth more than the whole value of pig production! In other words, agriculture as a whole would have a higher value added without any pork production activities. Of course this does not apply to all producers and all regions. Nevertheless, the evidence available from data provided to the team indicates that, in general terms, the production of pigmeat in Russia is extraordinarily inefficient²².

A second important implication of these low value added shares is that it shows how dependant agricultural production is on purchased inputs. This is consistent with the evidence for other countries, namely that the dependence of agriculture on purchased inputs increases alongside with further improvements in production technology, and thus policies affecting tradable input prices are very influential in the final outcome on farm production. Policies that, intended or not, influence the prices of tradable inputs employed in agriculture have a significant impact on net returns to farming. As an example, one might imagine an agricultural policy

Box 2.2: Example Calculation for Cattle Production in the Central Region

The example below gives an insight into the arithmetic that lead to extremely high ERPs in cases of activities with relatively low value added at reference prices. In the example provided, the NRP of the main output (cattle) is 25%, the NRP of the main input (feeding stuff) is only -4%. Even if the nominal difference between value added at domestic and reference prices, respectively, is less than a fifth of the total output value the computed ERP amounts to 855%.

Valuation	@ domestic prices [RUR]	@ border equi- valence price [RUR]	NRP [%]
<i>main-product:</i> cattle	24,283	19,351	25
<i>by-product:</i> manure	1,191	1,816	-34
<i>input:</i> calves	1,867	1,488	25
<i>input:</i> feed	18,242	18,905	-4
<i>input:</i> electricity	155	229	-32
			ERP [%]
Value added	5,210	545	855

²¹ While the computations of NRP only accounted for nominal prices of the activities' main products (e.g., milk as main product of milk production), the revenue position in the computation of value added also account for by-products, e.g. in the case of milk production the by-products 'calves' and 'manure' have been integrated into the assessment of revenues.

²² It is necessary to take into account that in our estimates Russian agriculture was considered to have a commercial production orientation, with corresponding use of purchased inputs. However, about 50% of the sector's gross output is generated by household plots (over 50% for pigmeat). Such production uses relatively few purchased inputs, but is intensive in the use of household labor, which has a low opportunity cost. Thus, even for products that are estimated to have a low or negative value added under conditions of commercial production, (e.g., pigmeat production) production by households may have positive value added and may be quite rational.

initiative that increased the price of grains or support income in agriculture; given the lack of substitutes, a rise in grain prices reduces the profitability of livestock husbandry since grains are the most important feedstuffs. Similarly, protection from foreign competition to the manufacturing sector producing agro-chemicals and machinery and equipment raises the cost of production in agriculture and hence reduces farm income.

The aggregate impact of price related interventions on output and input prices as it relates to the income of primary producers (i.e., proxied by value added), was computed using the Effective Rate of Protection (ERP) concept, which measures the combined effects of price distortions on output and input markets²³ (for concepts see **Box 2.1**, for results see **Table 2.1**). For some of the analyzed activities, the levels of effective protection are more pronounced, in some cases even with a different sign from those of nominal protection. No single pattern of effective protection applies to our set of activities²⁴. In commodities such as wheat or barley, in spite of the fact that output prices are lower than border price equivalent prices, the net effect on farm income is offset by the effect of inputs that are also available at domestic prices which are lower than their reference equivalents – the remaining impact on producers' incomes is almost zero in both cases (0.2% and 0.7%, respectively). Depending on the respective input-mix, the implicit taxation of outputs may also be overcompensated by the implicit subsidization of tradable inputs, so that the remaining net effect corresponds to a significant implicit subsidization of the producers income – producers of sunflower seeds enjoy on average an income that is 36% higher than it would be if all outputs and inputs were priced at their international market values. The main source of the differences between the nominal and the effective rates of protection is the implicit subsidization of intermediary input consumption mainly through the domestic price levels of fertilizers (especially nitrogen and potash) and energy sources (especially electricity). Nevertheless, an implicit taxation remains as a net effect on the incomes of producers of rye (11%), oats (12%), and milk (14%). In milk production, the border equivalent price of the main product—milk-- is slightly higher than the domestic price (5%) but the border equivalent price of the by-product—calves-- is lower price than its domestic price. Due to the low productivity in milk production, the impact of revenues from calves per ton of milk is relatively more significant than at higher productivity levels.

The ERP estimates for the two livestock fattening activities 'cattle' and 'pigs' reveal a substantial increase in farm income resulting from price and trade intervention on output and inputs (by 175% and 45%, respectively)²⁵. This income transfer to producers of livestock products results from the pattern of nominal protection described earlier: The domestic price of

²³ A caveat on the ERP estimates provided here: the available cost structures have not been adjusted for the impact of changes in relative prices of tradable inputs on the input matrix (i.e., it is assumed that coefficients are fixed). Such an adjustment is conceptually possible but it is beyond the scope of this study as it requires fairly sophisticated input data and a clear notion of the relevant production function. The consequence of the fixed coefficient assumption is that it could overstate the true output costs.

²⁴ Due to the lack of disaggregated data on production volumes of the individual coarse grains and meat production, no reliable weighted average could be calculated to indicate the aggregate effective protection for the sector as a whole on a regional and federal level.

²⁵ A study on agricultural protection in transition economies published by the OECD arrives at similar findings. Even if the results in terms of PSE differ (for conceptual reasons) in their value from the ERPs described in our study, the OECD also states that "In Russia livestock farmers were implicitly subsidized, while negative transfers were observed in the crop sector".

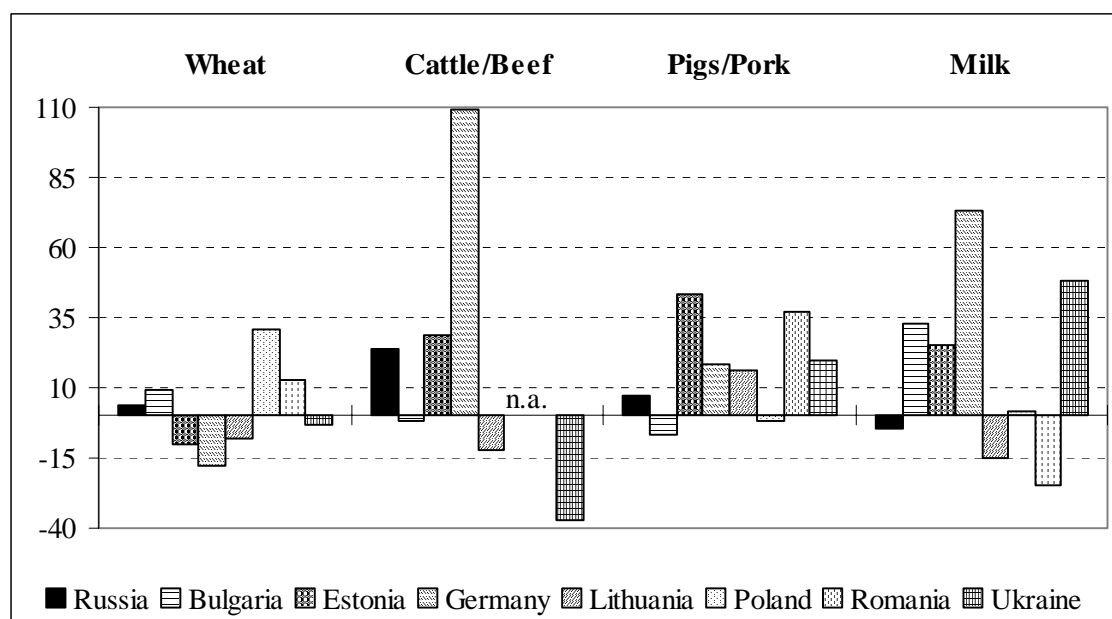
live animals is higher than the corresponding border price equivalent while most of the grains and also milk are currently priced in the domestic market at prices lower than the corresponding border price equivalents. Thus, producers of livestock products are favored by higher selling output prices and lower inputs prices, relative to border price equivalents.

To sum up:

- pig fattening is a highly inefficient commercial activity in Russia today. Given the domestic level of input use per unit of output, our analysis shows negative value added at both domestic and under border equivalence conditions. This raises a major policy question – what can be done to raise efficiency, and simultaneously induce the exit of many producers from this activity which are unlikely to become competitive under a more neutral trade and price regime?
- the ERPs for cattle production are quite high, as observed in **Table 2.1**.

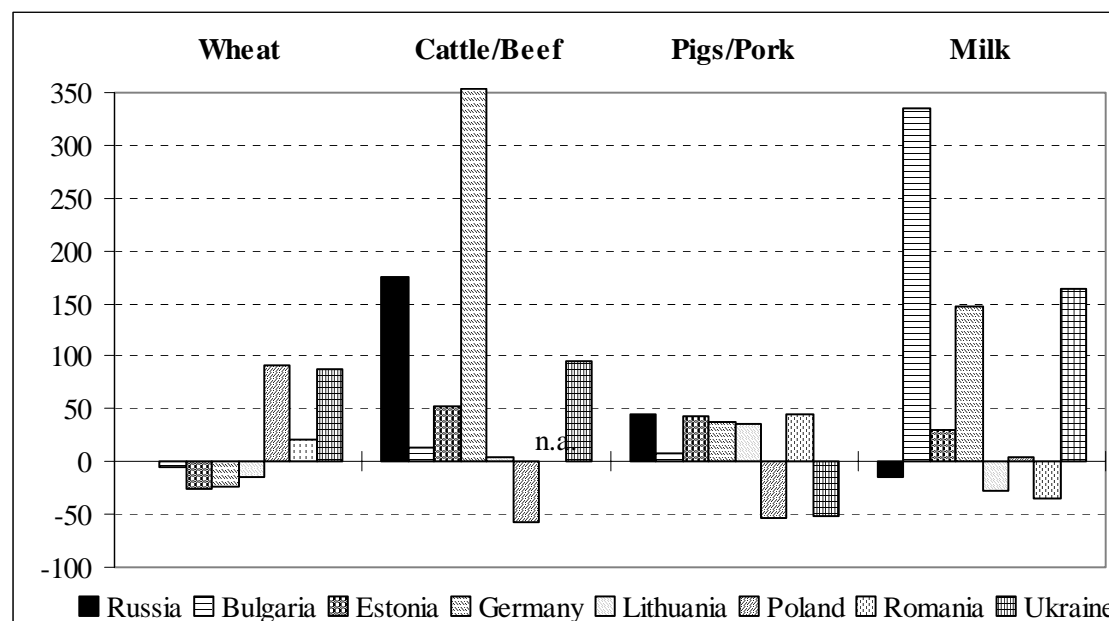
Figure 2.2 and **Figure 2.3** provide a comparison of nominal and effective protection levels, respectively, identified for the Russian Federation with those of other transition countries in the region, as well as with levels in Germany as a European Union country. The results for the other countries were obtained from recent World Bank studies on the subject which made use of the same empirical approach and of similar methodological assumptions, thus ensuring a required degree of comparability among the results. This comparison reveals that in a regional (i.e., Central and Eastern European) context, the protection levels revealed for Russia can all be referred to as relatively moderate. For the commodities wheat and milk, the indicators of nominal and effective protection are even rather low. Whereas both indicators for pig husbandry are on average levels, the effective protection ratio for Russian cattle growing appears – of course with the exception of the EU levels – to be above the regional average.

Figure 2.2: International Comparison of NRPs for Selected Agricultural Outputs



Remark: Results for Russian Federation: 1999, for Bulgaria: 1998, other results: 1997.
 Sources: Csaki, Nash, Fock & Kray, 2000; Valdes (ed.), 2000; Csaki, Valdes & Fock, 1998; Valdes & Kray, 1999; own calculations.

Figure 2.3: International Comparison of ERPs for Selected Agricultural Outputs



Remark: Results for Russian Federation: 1999, for Bulgaria: 1998, other results: 1997.

Russia wheat ERP is so small that it appears as 0 in figure 2.3.

Sources: Csaki, Nash, Fock & Kray, 2000; Valdes (ed.), 2000; Csaki, Valdes & Fock, 1998; Valdes & Kray, 1999; own calculations.

From a comparison of our results for 1999 with those protection indicators derived by Valdes it can be concluded that the levels of nominal protection decreased (in absolute value) significantly over the last 5 years. Whereas the study by Valdes found domestic prices to be substantively below or above their border price equivalents, the levels for 1999 seem to be fairly moderate. The 1999 results on effective protection also follow the same trend for grains, but for livestock products our results suggest a decrease in income support for milk and a decline in implicit subsidization of pig and cattle growing farmers. Again, it is important to note that the ERPs for cattle growing in the recent study should be interpreted with care since its high value is a result of the arithmetic of the indicator – the transfers to farmers in 1999 were significantly lower than the ones revealed by Valdes (2000), the ‘inflated’ ERP arises due to the relatively low value added at reference prices which is the denominator of the ERP calculation²⁶.

²⁶ To a certain extent, these developments can be attributed to the fact that for Russia, the fall in the exchange rate was an important contributor to a decline in market price support. This phenomenon was also addressed in recent OECD analyses of PSEs for the Russian Federation. As an effect of the exchange rate depreciation, the Ruble equivalents of international prices were significantly inflated. This inflation of equivalence prices occurred even if international (i.e. “world market”) prices were also falling in US-Dollar terms. On the other hand, parts of the differences between the trends indicated in the two studies can be attributed to the individual conceptions of the quantitative analyses. The main differences between the two studies comprise (a) a different number of tradable

Effects of Current Divergences on Consumers' Real Income

Russian consumers spend a significant share of their income on food. But they would neither suffer nor benefit significantly from a liberalization of current agricultural and trade policies.

Russian households, on average, spend about half of their disposable cash income on food; according to a 1997 household survey, for the lowest-expenditure decile of households this share is closer to 70% (see **Table 2.4**). The share of food in total income (cash and in kind) can even assumed to be higher. Thus, anything that affects prices of agricultural and food will undoubtedly affect consumers' real income. To assess how much consumers' real income when all currently existing price divergences are removed would differ from the current real income we used an approach based on Schiff and Valdes, 1992 (for details see **Box 2.3**).

inputs taken into account in the individual studies and (b) different assumptions on traders' and handling margins. Fortunately, the database made available for our current study provided an almost complete coverage of all tradable inputs employed in the various production activities, whereas the earlier study only accounted for a limited number of tradable inputs.

Box 2.3: Approach to Analysis of Effects on Consumers' Real Income

To assess how much consumers' real income would differ from current real income in a situation where all currently existing price divergences are removed, we used the following approach (based on Schiff and Valdes, 1992, ch. 8). First we computed the effect of the price change in the primary product on the price at the retail level and then computed the expected change in the cost of the consumers' basket given a constant nominal income. Different income groups have different consumption patterns and thus this estimate captures this differential effect of a given change in farm prices. We then express this change in the cost of the consumers' basket as a percent of household income, under the assumption of a constant nominal income. Clearly, this is a short/medium type analysis. In the long-term, consumers would adjust their consumption patterns to the changes in relative prices, and a change (rise / decline) in food prices could have some effect on nominal wages (rise / decline) and the subsequent share of expenditures on food (decline / rise). From this point of view, our approach overestimates somewhat the true longer-run impacts of the change in farm prices. On the other hand, our analysis does not include all farm products, thus tending to understate the real impact of changes in farm prices.

The expenditure shares were derived from the aforementioned 1997 household survey²⁷. The available statistics provided the shares of household income (by deciles) spent on 14 different groups of food products and beverages. The food products covered by our analysis are bread and pasta, meat and meat products, milk and dairy products, sugar and confectionery, vegetable fats, 'dining out,' as well as alcoholic beverages²⁸.

Food price changes had to be estimated on the basis of assumed cost shares of purchased agricultural raw products in the total costs of the food processing industry. Transmission of price changes was computed under the assumption of constant processing and trading margins, i.e. food price changes are solely the result of raw products price changes. The relevant price levels in Russia have been evaluated based on the NPR measure provided above. Thus, food price changes were obtained by adjusting for 1999 food prices (current domestic prices) by the relative change in nominal protection of raw materials weighted by their share in the total costs of food production/processing. Similar to the analysis of the farm income effects, this computation corresponds to a short-term impact, a situation that does not capture the effect of consumers' reaction to the new set of relative prices. Conceptually, all household deciles face identical food price changes, but the impact of these price changes on their real incomes varies as a result of the different weight of the various food items in their household expenditure. Due to insufficient data on regional consumption patterns, a meaningful regionalized analysis of consumer effects could not be carried out.

Table 2.5 summarizes the impact of a removal of all currently prevailing distortions on the real income of Russian consumers. Since price wedges in 1999 (that is the NPR estimates) were found to be quite moderate, the impact of a removal of trade and price interventions on retail prices would be relatively modest, and consequently the potential impact of trade liberalization on consumers real income would also be small. The expected decline in the domestic retail price of meat and meat products (by around 5%) is compensated by a rise of most other food prices, and hence our computations of the net effect on real income of consumers indicates that the net effect is insignificant. For the poorest decile the net effect on the household's real income from trade liberalization would imply an increase of 0.02%; for all groups together it is slightly higher (0.09%). In other words, there is practically no impact at all. However, it should be noted that the analysis of the potential income effect of consumers was done at the domestic and border price

²⁷ Any interpretation of the results should take into account that the consumption pattern might have undergone some change during the period from 1997 to 1999 (see discussion provided in **Chapter 1** of this report).

²⁸ In addition, vegetables and melons, fruit and berries, fish and fish products, eggs, and non-alcoholic beverages were included in the analysis. Since none of the analyzed agricultural products were assumed to have a direct impact on the prices of these food products, they will not be displayed in the following results. Nevertheless, the expenditure on these products remains as a constant in the aggregate assessment of consumers' income effects.

NPRs that were prevailing at the time (1999), a year during which international prices for some farm products were somewhat higher than the norm, and thus large reductions in world prices in the future could result in a more significant effect on consumers.

Table 2.4: Expenditure Shares of Russian Consumers according to 1997 Survey [%]

	All	By Deciles			
	households	<i>Decile I</i>	<i>Decile IV</i>	<i>Decile VIII</i>	<i>Decile X</i>
Expenditure, total	100.00	100.00	100.00	100.00	100.00
Food & beverages, total	48.55	66.03	60.63	47.46	34.15
Bread & pasta	7.61	17.72	11.32	6.39	4.03
Potatoes	0.65	1.42	0.95	0.57	0.35
Vegetables & melons	2.50	3.14	3.05	2.41	1.85
Fruit & berries	2.43	2.25	2.66	2.58	1.97
Meat & meat products	12.03	14.11	14.82	12.06	8.33
Fish & fish products	2.43	2.73	2.84	2.38	1.87
Milk & dairy products	6.12	9.01	8.26	5.81	3.97
Sugar & confectionery products	4.91	5.93	6.08	4.75	3.65
Eggs	0.76	1.54	1.11	0.64	0.45
Vegetable oil & other fats	1.17	2.49	1.76	0.98	0.64
Tea, coffee, soft drinks	2.42	2.96	2.95	2.41	1.82
Food outside home	2.78	1.13	2.03	3.39	2.42
Alcohol drinks	2.75	1.60	2.82	3.09	2.81

Table 2.5: Real Income Effects of a Removal of Currently Existing Distortions

	Average	Decile I
Change in real income [%]	0.09	0.02
	<i>Change in nominal expenditure [%]</i>	
Food and beverages	-0.18	-0.03
Bread and bread products	+0.68	+0.68
Meat and meat products	-4.93	-4.93
Milk and dairy products	+2.29	+2.29
Sugar and confectionery products	+5.18	+5.18
Vegetable oil and other fats	+0.24	+0.24
Food outside home	+0.49	+0.49
Alcohol drinks	+1.94	+1.94

Source: own estimations

IV. ACCESSION TO THE WTO PROVIDES THE POLICY FRAMEWORK FOR RUSSIA'S FUTURE AGRICULTURAL SUPPORT POLICY

Russia is currently negotiating accession to the WTO. Russia first requested accession in 1993, and as part of the negotiation process Russia submitted a description of the main features of its trade regime. In turn, existing WTO members are scrutinizing a wide variety of trade policy measures applied by the Russian federation, including trade policy measures, the role of the state in the economy, and the design and current operation of regional policies. Significantly, in addition, WTO members are closely monitoring the current legal framework and the current procedures for enforcing the various commitments that Russia would undertake under WTO accession.

Eventual membership of the WTO implies that Russia will conform to a set of rules which have particularly significant implications for the design of domestic agricultural policy. As such, accession implies that Russia needs to reach substantial agreement with WTO members on the nature and direction of its farm and trade policies. The three key areas are trade measures on imports (market access), domestic support, and export subsidies. In addition, the negotiations also involve sanitary and phytosanitary regulations, an agreement on subsidies and countervailing measures, customs procedures, and others.

The Uruguay Round Agreement on Agriculture (1994) constituted a major step forward towards the establishment of an improved set of rules for agricultural trade, which implies a major change in the attitude of governments toward the control of national agricultural policy. The most far-reaching element of the Agreement is a change in the rules regarding trade barriers on imports (market access). With a few exceptions, under the rule of tariffication, all participating countries agreed to convert all existing non-tariff barriers into binding duties and not to introduce new non-tariff measures, a clause that imposed changes in import policies on a number of countries, including the EU, Canada, the US, Japan, and others.

In addition, the 1994 Agreement also set new rules and commitments for the reduction of export subsidies and for domestic support policies. Under the latter, a set of policies which are deemed to be less distorting than others are defined, and sent to a "green box" which enjoys immunity from WTO challenges. Other policies are not sheltered this way and are subject to reductions through a limit on the total support given by domestic subsidies and price interventions. Participants also concluded an agreement on Sanitary and Phytosanitary Measures (the SPS Agreement).

Despite this impressive outcome, the agricultural trade negotiations fell short in some areas and remain unfinished in others. Perhaps its principal deficiency is the modest access result for sensitive products and the inability to outlaw export subsidies. Consequently, particularly in rich industrial countries, agricultural production still receives substantial subsidies.

Currently, WTO members are preparing for discussions on the continuation of the reform process in agriculture, as part of a new round of multilateral trade negotiations under the WTO scheduled to begin in 2001. The long-term objective of such negotiation processes is a substantial progressive reduction in support and protection to agriculture.

At this stage, three main areas have been proposed for inclusion in the next round of negotiations, including: improved market access; strengthening discipline on domestic support measures; and elimination of the use of export subsidies.

From Russia's perspective, what does the above mean? By the time it joins the WTO, it is likely that the rules on agricultural trade will be more stringent with regard to agricultural protection and domestic support and subject to tougher disciplines than under the Uruguay Round Agreement. It is likely that deeper cuts in tariffs will be demanded, export subsidies will be prohibited or severely constrained, and domestic support which is trade-distorting will come under intense scrutiny.

Of particular relevance for Russia today is that the rapid decentralization of economic and commercial responsibilities has given the regions ample scope for implementing a regional approach regarding agricultural support measures. Regions are trying to develop their own policies on inter-regional trade, prices and agricultural support. Under the 'second level obligations' under the GATT Agreement, each contracting party is expected to ensure observance of the provisions of the Agreement by the regional and local governments within its territories. Russian regions have measures in place which are forbidden under WTO rules, and the working party considering Russia's accession has received considerable evidence of the unnecessary restrictions faced by companies operating at the sub-federal level in Russia such as price controls, monopoly purchasing, additional certification standards, and so on.

Additionally, there is evidence that some regions have agricultural subsidies in place which will need to be considered part of Russia's agricultural support measures and subject to reduction commitments²⁹.

WTO accession is a great challenge and an opportunity for Russian agriculture. First and most important in the long-run, the net effect of implementing reforms in Russia's domestic agricultural policies so as to conform with the WTO guidelines would be beneficial to most domestic producers and consumers in Russia. The country's future trade and price regime is a fundamental component of Russia's long-term strategy for agriculture, and thus the WTO accession process offers a unique opportunity to establish the main parameters for a coherent system of rules and institutions compatible with Russia's full integration into the world economy. It is realistic to expect that WTO membership should bring important benefits to Russian agricultural producers. As producers of exportables, they will gain from more secure and transparent access to foreign markets under a multilateral rule-oriented system. For example, at present, some WTO members treat Russia as a state-trading economy and therefore are free to apply non-tariff barriers against Russia's exports, and Russia does not have access to the WTO dispute-settlement mechanisms. In more general terms, WTO membership will further Russia's transition to a market-oriented agricultural economy under a more reliable trade regime. Overall, in the medium-long term, Russian agriculture should obtain substantial net benefits from WTO accession.

²⁹ Vangelis Vitalis (Sept 1999), "Second Level Regional Policies in the Russian Federation and the Multilateral Rules Affecting Such Policies", memorandum, Mr. Vitalis, has been a member of the WTO Working Party considering Russia's application for membership, and with the New Zealand embassy in Moscow.

However, policy reforms worldwide usually have a differentiated impact within agriculture, between producers of exportables vis-à-vis importables, between geographic zones, farm size, and sub-periods. Thus, trade liberalization and limitations on the level of government support is a sensitive issue for producers of import-competing products in some regions, and hence one can expect considerable resistance to further trade liberalization and lower levels of support from some producer associations. The uncompetitive sub-sectors will argue that Russian agriculture is still too weak to face the challenges of competition with foreign suppliers.

Looking ahead, the principal challenges to Russia's farm policy with WTO accession are likely to center around market access for imports, measures of internal support, restrictions on export subsidies, and the role of regional policies that affect prices and subsidies to local agriculture. Specifically with regard to:

Market Access for Imports

Currently (as of June 2000), Russia's agricultural tariff schedules are ranging from 0 to 30%, but specific duties also apply in some products, raising the total equivalent tariff. Sugar has a higher tariff rate, with a seasonal tariff of 45%. Most explicit quantitative restrictions have been abolished. On the one hand, the frequent changes in the tariff levels, such as occurred during 1998, have led to considerable uncertainty among importers.³⁰ The most contentious issue is likely to be the connection between current and binding tariffs, if Russia insists on levels of binding tariffs considerably higher than the current tariff levels. As a guideline, binding rates of 50% were mentioned by some government officials during the World Bank mission in June 2000. WTO members will try to convince Russia to tie its tariffs to binding tariff levels not much higher than the levels currently being applied, both to make its trade regime more predictable and to reduce the risk of higher protectionism on imports.

Regarding norms and technical standards, the EU representatives are concerned that the Russian government was applying tougher import certification inspections regarding food safety and quality standards compared to those applied to domestic production. Such discretionary practices would represent a clear violation of WTO rules. Furthermore, there are a number of regions that have introduced their own testing laboratories and demand that foreign products meet local standards which are often different from the national standards, with no mutual recognition arrangements among the regions³¹. Such disparity in standards will probably generate objections in the WTO accession negotiations.

³⁰ For example in August 1998, Russia increased tariffs on raw and white sugar by 74% and 20% respectively. In February 1998 a minimum duty was introduced for a wide range of products and in July the government announced a temporary 3% uniform surcharge. See U. Eiteljorge and M. Hartmann (2000) "Russia's Agri-Food Trade and Trade Agreements" in *Russia's Agro-food Sector*, ed. By P. Warheim, K. Froberg, E. Serova and J. von Braun, Kluwer Academic Publishers, Boston, Dordrecht and London.

³¹ V. Vitalis, New Zealand Embassy, Moscow, Dec 1998, memo.

Export Subsidies

Under the Uruguay Round Agreements, there is a ban on new export subsidies (i.e. products not subsidized in the base period); existing subsidies are, however, allowed to continue, subject to agreed reductions. The widespread use of export subsidies by some OECD members has been one of the most disruptive elements in the operation of world markets. Countries that import farm products have been the gainers from the subsidies, but even these countries have had problems with domestic producers that compete with imports due to the disruptive effect of such subsidies on domestic prices. In the Uruguay Round the use of export credits was accepted as a form of export subsidy, but it did not prove possible to bring them under the export subsidy constraint.

The topic of export subsidies and export credits is high on the agenda for the forthcoming negotiations, and influential negotiators such as the Cairns group will press for a complete elimination of export subsidies. Under the Uruguay Round the limitations on export subsidies are more flexible towards developing countries, in that they may provide subsidies to reduce the costs of marketing exports and internal transport and freight charges on export shipments. It is understood that Russia is requesting to be allowed to subsidize the domestic transport cost of exports, considering the exceptionally large size of the country and hence high transportation costs.

Russia is requesting the notification of export subsidies although they are not currently applied, which would imply an exception under the Uruguay Round Agreement.

Domestic Support Measures

Including both federal and sub-federal support measures, budget support to agriculture represents Russia's principal policy instrument to support agriculture today. In her analysis (see her background paper prepared for the World Bank, 2000) E. Serova concludes that, unlike most OECD members where price related transfers represents between 35 and 95% of total transfers to agriculture, budget support rather than price related transfers represent the bulk of support to Russian agriculture.³² Moreover, in her analysis of government budget support during the period 1997-2000, she concluded that federal transfers represent not more than one third of total budget support to agriculture, while regional support represents the remaining two thirds.

WTO accession will take into account both federal and regional support measures. Green box measures (i.e. "no, or at most, minimal trade distorting effects on production"), according to the same source, represented between 19 and 26% of total (consolidated) budget expenses during 1995-98. This ratio increased drastically in 1999.

Thus, negotiations on budget support measures are critical and this accounts for the attention that the WTO working party assigns to information on budget support, and especially to regional budget measures. Harmonization of the regional support measures with the federal

³² It should be noted that till the mid-1990s price transfers played a more significant role in Russia than budget transfers; however, this was a result of a heavy undervaluation of the ruble.

guidelines on budget support and market access negotiated under the WTO accession is likely to become one of the most critical issues to address during the accession negotiations.

Arriving at reliable and meaningful estimates of budget support to Russian agriculture is an extremely complex task. Some government outlays are explicitly included in the agriculture accounts, while others are subsumed under other non-agricultural items of the budget. Moreover, the government accounts on debt restructuring and tax concessions to farms are another source of problems in measuring support to agriculture. Furthermore, the structure of the government budget varies from year-to-year which makes it more difficult to monitor the actual outlays. The distinction between what are government outlays and what represents true income transfers to producers is still a field which requires a major effort before one can have confidence in the figures. During recent talks in Geneva on admission to the WTO, Russia's proposal set the maximum sum of domestic subsidies (both budget funds and price support) at 16 billion dollars per annum, a figure several times higher than the estimated level of support during recent years.³³

The Base Period for AMS and Tariff Reductions: A Major Unresolved Issue

Agreeing on a base period to be used to measure Russia's agricultural commitments has been difficult so far. It is understood that WTO members are demanding the use of a current base period, while Russia will be seeking to use the period 1989-91 to establish a base, rather than a more recent three year period.³⁴ According to OECD estimates, Russia had an extremely high Producer Subsidy Equivalent (PSE) during the period 1989-91, reaching 75%, at a time when OECD countries over the same period had a PSE of around 41%. Undoubtedly, the period 1989-91 cannot be considered representative of the current levels of support to agriculture. According to OECD estimates, Russia's PSE during 1996-97 ranged between 32 and 26%.

V. FOOD AID AND ITS EFFECTS ON THE AGRICULTURAL SECTOR

On several occasions in the 1990s, Russia has been the recipient of large shipments of food aid. The program launched at the end of 1998 included 2.7 million tons of wheat (1ton from the EU and 1.7 tons from the US), plus large quantities of rye, corn, soybeans and meal, rice, beef, pork, dry milk, and poultry. In addition, in March 2000 the US launched a new program to provide Russia with 520,000 tons of food aid commodities, including 300,000 tons of wheat (donation), 20,000 tons of seeds, and 200,000 tons of food commodities.

The food from the 1998 Program was distributed to regions, which were supposed to sell it at market prices and remit the proceeds to a Special Account in the Ministry of Finance from

³³ Estimates of current level of support of approximately 2bn dollars were quoted in a report by I. Sedykh in "Secondary WTO signs, Russia enters through agriculture", in the Russian newspaper Segodnya on March 3, 2001, as reported in the BBC Monitoring reporting on the latest round of talks in Geneva on admission to the WTO (March 2001).

³⁴ V. Vitalis, New Zealand Embassy, Moscow, Dec 1998, memo.

where it was to be transferred to the Russian Pension Fund and other Russian Agencies to be used for agreed purposes³⁵. As of November 2000, 13.6 billion rubles (out of a total collected 15.3 billion rubles) had been transferred to the Pension Fund. This amount slightly exceeds the average monthly expenditures of the Pension Fund in 1999. The EU sale proceeds were transferred not only to the Pension Fund, but also to the Social Fund administered by the Ministry of Health and Ministry of Labor. Unfortunately, Russian regions failed to raise substantial funds for the Russian Pension Fund to reduce pension arrears in a timely fashion. As a result, while virtually all of the proceeds were eventually remitted, there were significant delays. Shortfalls in deposits to the Special Account (mostly Russian Pension Fund) were about 1.4 billion rubles, as of November, 2000, with about two thirds of the regions past due on their payments.

Analyses of the US Government-to-Government Program shows that commodities valued at \$742 million might, at best, generate US \$355 million in Russia (see **Table 2.6**). The “rate of return” of the initial US commodities cost was actually only 46%. With the Private Voluntary Organizations Program this indicator was less. The biggest gap was between the US costs for seeds, dry milk, soybeans and wheat and actual Russian sale proceed for these commodities. For example, Russian counterparts sold seeds for only 12.8% of the cost to purchase these seeds in the US. For both packages (EU and US) together, a total announced value of US \$1.5 billion produced only 16.7 billion rubles (about US \$596 million).

³⁵ All the commodities were to be sold to raise funds for the Russian Pension fund and six designated agricultural projects, except for 411,400 metric tons of wheat, which were to be donated to Russian social institutions to feed the most needy. In addition, the Foreign Agricultural Service of USDA selected five private voluntary organizations to distribute about 97,00 tons of various donated ready-to-eat commodities

Table 2.6: Fiscal Year 1999 US Food Aid to Russia by Program and Commodity (Dollars in Millions)

Program / Commodity	Tonnage distributed (thousands of tons)	US cost			Expected Sale Proceeds	Actual Sale Proceeds as of November 17, 2000**	
		Commodity	Freight *	Total *		In Value	Percentage of US Cost
I. Government-to-government:							
1. Public Law 480, title I sales							
Corn	1,009.5	96.4	54.6	151.0	50.7***	45.8	47.5
Soybean Meal	422.6	71.6	24.3	95.9	48.5	48.0	67.0
Soybeans	191.9	35.3	14.1	49.4	17.2	14.2	40.2
Beef	44.1	83.7	9.4	93.1	39.3	37.7	45.0
Rice	100.6	32.5	12.2	44.7	22.6	22.6	69.5
Poultry	74.0	39.5	17.3	56.8	47.9	47.4	120.0
Subtotal	1,842.7	359.0	131.9	490.9	226.1	215.7	60.1
2. Section 416(b) donation:							
Wheat (for sale)	1,281.2	157.7	88.4	246.1	63.8	63.4	40.2
Wheat (for social institutions)	411.4	50.6	28.4	79.0	0.0		
Subtotal	1,692.6	208.3	116.8	325.1	63.8	63.4	
3. Food For Progress donation:							
Nonfat Dry Milk	29.9	68.3	5.2	73.5	19.7	19.6	28.7
Pork	49.2	88.5	19.5	108.0	43.6	41.9	47.4
Seeds	15.0	17.9	3.8	21.7	2.3	2.3	12.8
Subtotal	94.1	174.7	28.5	203.2	65.6	63.8	36.5
Total	3,629.4	742.0	277.2	1,019.2	355.5	342.9	46.2
II. Private Voluntary Organizations (PVOs)							
Food For Progress donation:							
Rice	14.3	5.5	3.2	8.7	0.0		
Salmon	3.0	6.9	1.2	8.1	0.0		
Lentils and Peas	15.5	6.7	4.3	11.0	0.0		
Navy Beans	3.0	1.6	0.8	2.4	0.0		
Soybeans	8.0	1.5	0.5	2.0	0.0		
Vegetable oil	17.5	12.4	4.3	16.7	0.0		
Subtotal	61.3	34.7	14.1	48.8	0.0		
Section 416(b) donation							
Wheat Flour	27.0	5.3	7.7	13.0	0.0		
Nonfat Dry Milk	8.5	20.3	2.7	23.0	0.0		
Subtotal	35.5	25.6	10.4	36.0	0.0		
Total	96.8	60.3	24.5	84.8	0.0		
Administrative Cost***				2.5			
Program Totals	3,726.2	802.2	301.8	1,106.5	355.5		

Note: The table is made on the basis of the RF MOA information and the US GAO Report "US Food Aid Program to Russia...", pp. 41 – 42. Totals may not add due to rounding.

* Includes ocean freight differential totaling \$122.1 million for shipments made under cargo preference requirements of the Merchant Marine Act of 1936, as amended, and the Food Security Act of 1985, as amended. This cost, borne by the United States for all food aid programs.

** Requests for payment (amount) ordered out by Russian Agents that is in total by about 5% less than the amount actually paid.

*** Estimated

In October 2000 the US General Accounting Office (GAO) released its Report on Food Aid to Russia, which was one of the largest US food aid programs to a single nation. The GAO analysis focused on the internal control used by the USDA in its management of the FY 1999 government-to-government food aid program, so the issue of food aid impact and potential distortions created in particular markets was not discussed. Neither the GAO nor a subsequent independent audit³⁶ found any confirmed cases of fraud, diversion, or misuse. The GAO, however, did find a number of shortcomings in that the program i) did not adequately implement internal controls; ii) did not establish adequate procedures to monitor deposit of funds derived from the sale of food aid; and iii) was unable to demonstrate the reasonableness of final food aid commodity prices. The analysis showed that in some cases these prices were significantly below market prices in Russia. The negative conclusions were disputed by the US Foreign Agriculture Service, and by high-level Russian government officials. However, a report by the Russian Federation Accounting Chamber cited diversions in food aid delivery, breaches with regard to payments to state agents, price formation, and inadequate control over debt repayment by regions for delivered food aid.

The US and the EU teams were only able to adequately track commodities from purchase (in the US and EU countries) through shipping and arrival at the Russian border. A limited number of US and EU monitors (only 6 US officials were in charge of this work) simply could not verify the food aid arrivals in regional facilities, or conduct timely monitoring visits to local food aid users. It was simply impossible to effectively verify the amounts actually delivered to thousands of sites in almost 80 regions and detect discrepancies. To get correct information, a full audit would have been needed in each case, not just site visits. Besides, one could hardly expect any adequate monitoring from staff who were not familiar with the Russian accounting system, business rules and organization, language and traditions.

Apart from the issues of accountability, transparency, and targeting raised by the GAO report, there are strong reasons to believe that the food aid undermined the development of the Russia market in agricultural and food products.

First, such quantities of products depress local prices, notwithstanding the efforts of the EU and USDA to ensure that it was sold at “market” prices. Simple economic theory of supply and demand indicates that more supply must lower market prices; the only question is how much. But for several of these commodities, the quantities were significant enough to have a large impact. While an increase in supply will lower the market price, even if it is sold at “market prices”, this effect of distorting the market was magnified by the fact that in the event, the actual sales prices were in many cases far below local prices.

For example, the 1999 package included 14,000 tons of corn seeds. The corn seed demand for the sowing season of 1999 was 115,000 tons, so food aid deliveries made up a considerable part of the total amount of corn seeds utilized. Prices for the food aid corn seeds were fixed at a level much lower than the prices for domestic hybrids. As a result, economic conditions of some

³⁶ According to the USDA (personal correspondence), the independent audit’s findings are that the objectives of the program were met, the commodities were distributed to the intended recipients, and except for a small amount still owed, the proceeds have been deposited into the Pension Fund or other accounts, as specified in the agreements.

Russian corn seed plants, including two just constructed under the World Bank ARIS project, were undermined. In April – May, 2000, the US provided to Russia 18,700 ton of seeds, including 11,600 ton of corn seeds. The 8,900 tons utilized during the sowing season of 2000 were sold on average for 5,000 rubles per ton, while the prices for domestic hybrid seeds in 2000 amounted to 12,000 – 16,000 rubles (on average US \$500). Prices for corn seeds imported through commercial channels varied between US \$800 – \$900 for corn seeds from Moldova and Ukraine and US \$1,200 from the US.

The rice supplies (100,700 tons from the US and 49,600 tons from the EU) were almost one third of the annual rice consumption of Russia. A major part of the Russian rice operators had to curb their independent commercial activities on the world market or refrain from working with the Russian rice producers and concentrate on food aid supplies. The market infrastructure built up in this market segment was undermined. A considerable part of food aid rice had not been sold by the end of November 2000. In December 2000 a decision of the Inter-Agency Commission reduced the price for rice from 7 rubles to 4.5 rubles per kilo. This will further undermine the local rice market, but is the only way to get rid of these large stocks of food aid rice.

With respect to other grains, USDA experts argued that the amounts of grain aid (about 5 million tons, total US and EU aid) are too small a proportion of total production (around 57 million tons in 1999) to significantly affect the market. For a price-inelastic product like grain, a 9% increase in supply could have a non-trivial effect on price. But in addition, this uses the wrong comparator. Of the 57 million tons of production, all but 28.8 million tons were used on-farm, and of this 28.8 million tons, most was traded in the form of barter or in-kind payments, and so played a limited role in price formation and market development (see Table 1.7). Only an estimated 12.9 million tons were commercially traded through market channels, so an addition of 5 million tons could have a very significant impact in this market segment. And again, the prices at which the grain was sold were too low. The average price for the US food aid wheat (without donations) was 1389 rubles per ton, while average domestic procurement prices for wheat were in 1999: June – 1458 rubles; July – 1534 rubles; August – 1383 rubles; September – 1542 rubles; and October – 1765 rubles.

The distortionary impact on local markets has been widely recognized by Russian experts. Experts from the Agrarian Market Trends Institute (IKAR) stated that low prices for food aid pork destabilized the Russian pork market in 1999. Experts from the Agrarian Institute argued in the press that a delivery of 74 thousand tons of poultry meat from the US “worked” against Russian poultry producers who at that time (1999) had just started their intensive growth.

Furthermore, the attempt to establish a common sales price throughout the country was a case of “pan-territorial pricing,” which has been a common practice of state-owned food enterprises in developing countries, and is widely recognized to distort incentives. According to Ms. I. Khramova³⁷, in 1999 the regional price dispersion was at the level of 1996. Given this relatively high regional market price dispersion, fixing a uniform selling price for the whole country created clear distortions, and marketing agents given incentives for corruption.

³⁷ Khramova I, an article in the book: “Market Transformation in Agriculture: a ten years experience and prospects”.- Moscow, 2000, p. 233

Regional Administrations also tend to treat food aid deliveries as “purely humanitarian assistance” to the local population. In some oblasts, for example, Ulianovsk oblast, food aid rye and wheat were used to bake cheap bread. The loaf of this so-called “gubernskiy” bread was 1.5 rubles, while in other regions this price was several times higher. This was in line with its Communist policy, and, as it was pointed out by many Russian experts, “the cheapest bread in the country” helped the Governor of this oblast to win election again this year. Unfortunately, the oblast budget could not afford these subsidies: deliveries of food aid rye and wheat are still unpaid.

The program also undermined market development by relying on former state entities to sell food aid, capitalizing on the existing food distribution network and former staff of these entities. Fair and transparent procedures for the state agents’ selection were not followed.

Finally, food aid donors inflicted further damage by insisting on the imposition of export controls to try to prevent the re-export of donated grain. They did this with good intentions to prevent corruption, but the effect was to reinforce the old socialist tendencies to control exports, which had been largely relaxed as a positive step toward a market economy.

VI. CONCLUSIONS AND RECOMMENDATIONS

Trade and Pricing Policy

Policy discussions in Russia have tended to focus excessively on the amount of support given to agriculture, rather than the forms in which it is given. Some types of support and protection have much worse effects than others. Among trade policy instruments, quotas, licenses, and similar quantitative restrictions on output, imports, and exports not only fail to give clear price signals to producers and traders but also create opportunities for favoritism which, in practice, often results in corruption. In addition, high levels of protectionism on imports reduce the incentives to expand the production of exportables. At the federal level, the Russian Federation has wisely avoided imposing high levels of trade barriers, with the result that few products show substantial divergence between domestic and border prices, as demonstrated in the analysis of NRPs in this chapter. Nonetheless, as indicated by the ERP analysis, the same tariff on two final products can imply very different amounts of ‘effective protection,’ depending on how important tradable inputs (i.e. fuel, feed-grains, machinery and equipment) are in the production process and on how they are taxed. The analysis showed a greater degree of divergence among ERPs of different products. And, significantly, there were enormous discrepancies among ERPs of the same products in different regions, a reflection of different regional trade policies. The only way to guarantee a level playing field – avoiding large disparities in support among different activities (dispersion of effective protection rates) – is to make tariffs and subsidies low and uniform across all products – that is, tradable inputs and final products.

On the federal level, the basic recommendation that comes from this analysis is to keep tariff levels low and uniform, and to consider phasing out current input subsidies. In their place,

the government could consider using other support instruments that are WTO-consistent and do not affect the incentive structure, such as area-based payments that are independent of (“de-coupled from”) farmers’ current output or input decisions. These are now the major support instrument in the US and other countries, and the EU’s recent revisions to the Common Agricultural Policy move in this direction. The Executive Summary of this report elaborates on the concept of decoupled direct income support.

Russia should also focus agricultural support on the establishment of requisite institutions. Underdeveloped market institutes are a key issue of all economies in transition and especially Russia, and investment in the development of such infrastructure is definitely a “green box” measure.

On the regional level, it is even more critical to abide by the principle that any support for agriculture should be given in a form that does not change prices of inputs or outputs, since policies that create lower or higher prices of a product in one region will require that region to try to control the movement of that product into or out of the region. These kinds of policies have resulted in the fragmentation of the internal market of the Russian Federation. Regions should thus avoid trade barriers as well as support prices and input subsidies, but rather should channel support through de-coupled area-based payments or support for rural infrastructure, research, extension, etc.

Rural development and creation of an enabling environment for agricultural production and adequate living conditions for rural dwellers should be an essential component of the regional agricultural policy.

Food Aid

Future food aid should be humanitarian aid (mostly ready-to-eat food) administered through NGO channels and given (not sold) to the truly needy. Low income social groups can receive food aid through Red Cross / Red Crescent organizations. A food aid package might even include some animal feed, which should be placed into the State Reserves, and distributed in case of emergency to prevent wholesale slaughtering of livestock if fodder shortages occur.

Any other imports should go through normal commercial channels. If reluctance of banks to issue letters of credit (LCs) is the constraint, the donor countries could more simply set up a guarantee program for commercial imports. This could, in fact, be a win-win political strategy for donors, since it could effectively eliminate their surpluses, while setting up commercial contacts for the future, when the guarantees could be phased-out as banks become more willing to issue letters of credit.

Chapter Three: Building a Competitive Agri-Food Sector

Csaba Csaki

I. LAND REFORM AND FARM RESTRUCTURING

Land reform is not a new phenomenon for Russia. Indeed, by the time of the October revolution of 1917, there had already been a number of major land reform initiatives. Land nationalization and collectivization in the beginning of the Soviet era brought sweeping changes to rural life in Russia. Attempts to improve agricultural performance were also made during the subsequent stages of the Soviet period with the view to raising the productivity of the large scale collective farms while maintaining the state monopoly on ownership of land and allocation of resources through central planning. At the beginning of the 1990s, as a part of the overall political and economic transformation, the scope of objectives was also broadened in agricultural reforms. It is more than one decade ago that a new phase of agrarian reform began, aiming to transform the agricultural and food sector into a more efficient and productive system, based on market principles and private ownership.

The land reform and restructuring of traditional collective and state farms represents the most critical component of the transition agenda in the food and agricultural sector. This agenda also includes liberalization of the market environment, privatization of agro-processing and trade, and the creation of a new institutional framework for agriculture. Measurable progress has been achieved in all areas of reform. However, the progress has not been smooth. The pace of agricultural reforms has been characterized by a continuous struggle between pro-reform and conservative forces throughout the entire past decade. Because of the resulting tensions, and due to the fact that the agricultural reform was taking place against the background of a system-wide crisis in Russia, a deteriorating macroeconomic business environment and decreasing solvency of the population, the government has been unable to implement a consistent set of policies required to properly address the most critical reform issues. There has been only limited progress in land reform and farm restructuring, which is the subject of this section. Though the agricultural sector has been showing some economic growth over the last three years due to an improved situation in the domestic agri-food market, enhanced investment activity and initial redistribution of assets of insolvent farms in favor of efficient users, such growth is not yet sustainable. The overall performance of the sector to date indicates that reforms in the farming sector have not yet succeeded in improving efficiency and productivity.

The Legal Framework for Land Reform

Since the late 1980s, several laws were enacted that formed a new legal basis for land reform and restructuring of large agricultural enterprises. This new legal framework consists of

the constitutions, laws, decrees, and other documents issued at the governmental level from the federal to the local. The evolution of the legal framework for new land relations and farm restructuring has taken place in three major phases. During the first stage (1989-1990), still in the Soviet era, legislation allowed for the creation of non-state agricultural enterprises as cooperatives, provided the legal basis for individual farming, and land leasing. The second stage (1991-1993) formed the procedures for privatization of state and collective farms, including the determination of land and non-land entitlements, and securing their holders wide-ranging rights. In the most recent stage (1994-present), legislative attention shifted to creating a more precise legal framework for restructuring large agricultural enterprises, and toward establishing legalized private ownership of land, and land markets. The government has put much effort into the development of a land cadastre system that provides physical descriptions of land parcels and can be used to support a system of registered ownership rights for real estate.

The new legal framework has created a foundation for significant change. Unfortunately, however, some fundamental steps required by the creation of a fully-fledged market-based agriculture have yet not been realized, and significant legal problems and contradictions still exist, even in regard to the most basic issues of agricultural land ownership. In a regional comparison, the legal framework in Russian farming is far less conducive to an efficient private-based agricultural sector than in the countries of Central and Eastern Europe, and, indeed, in many of the other former republics of the Soviet Union.

The most important shortcomings are as follows:

- Though private ownership of agricultural land is recognized, the legal framework is not sufficiently clear in terms of the “boundaries” of this ownership. While the legal definition of individual (physical persons), corporate, and collective ownership has been clearly stated in the Constitution of the Russian Federation and the Civil Code of the Russian Federation, agricultural land ownership rights still remain ambiguous. Above all, it is not clear what land management rights (sale, lease, or collateral) the owners of land plots have.
- At present, foreign physical persons and legal entities may use agricultural lands on a lease basis. The future of this issue remains unclear, due to the generally negative public attitude towards foreign ownership. As another option, foreign investors may form Russian legal entities to get ownership of agricultural land in Russia. Some republics like Tatarstan do allow private land ownership by foreigners in their local legislation, however that has not resulted in any significant interest in agricultural land from foreign investors.
- Legislation regarding the status of individually owned land shares in the collective enterprises is clear, yet there is still a lack of clearly defined procedures necessary for transferring share ownership into full ownership of a physically defined parcel. One reason why these procedures have yet to be defined is that there is a concern that, while implementing this process, land fragmentation may develop, and this will consequently result in the future need for costly land consolidation procedures.
- While the civil code explicitly permits the purchase and sale of agricultural land, the current legal framework as a whole only effectively allows the sale of public and municipal land

plots associated with land shares, as well as household plots, garden plots, and other lands belonging to the population. Other agricultural land can only be sold back to the state or transferred to heirs. The only active segments of the land market are the case where agricultural land is purchased for subdivision and future construction of private homes, and the market for “gardens” and “summer homes” in suburban areas near large cities and in the southern part of the country. A legal framework and procedures for guiding land markets, as exist in market economies, have not yet been developed.

- Due to remaining uncertainties in the federal legislation regarding land ownership issues and delays in resolving these issues, several regions have tried to fill the legal vacuum by adopting their own “land codes.” Yet the way this was done has only added to the confusion about private property rights to land, rather than providing a solid legal basis for land ownership. Some of the regional laws, such as in Saratov Oblast, acknowledge unrestricted private ownership of land and allow the free trading and mortgaging of farm land. On the other hand, in some communist-led Oblasts (the so-called “red belt” area from Tula to Krasnodar), regional parliaments passed legislation explicitly prohibiting market transactions in land. When these are in apparent conflict with the rather vague federal legislation or the constitution, it is unclear what legal framework takes precedence.
- The attempts that were made in regions like Saratov to sell agricultural land at auction have also demonstrated the extremely low demand for agricultural land and extremely low agricultural land prices. While mortgage institutions are not interested in issuing loans with agricultural land being used as collateral, the value of agricultural land remains so low that, even if those financing mechanisms were in place, they would not have been able to provide the level of financing necessary for efficient farming operations. There are several underlying reasons for the low land prices, including the generally unprofitability of farming, but the uncertainties surrounding the legal status of land ownership also contribute to reducing the demand and price.
- In most cases farm restructuring and the consequent distribution of land has been carried out without prior agricultural land use planning. That has not only resulted in further soil degradation and general damage to the environment, but has also had a negative impact on the production potential of newly established farms.
- The absence of a unified cadastre that also includes descriptions of improvements attached to land, limits investment opportunities in agriculture. While the land cadastre system is operational throughout the country, and is supported by existing legislation, the data contained inside it are limited to physical description of land surface boundaries of land parcels and other related easements and servitudes. The government has already made the decision to develop a unified cadastre of real estate that would cover both land and improvements on the basis of the existing land cadastre system.

Changes in the Farming Structure

As a result of the privatization and the farm reorganization progress, there has been significant changes in land ownership, as well as in the contribution of various farming sectors to the overall agricultural output. As a sign of delays in genuine farm restructuring, the pattern of land use, however, has remained virtually unchanged.

- The structure of agricultural land ownership may be characterized by the following data. As of January 1, 2000 some 129.6 million ha of land were transferred into private ownership, 97.3% of which has been agricultural. The provision of land shares formally transferred the majority of the agricultural land (117.6 million ha) ownership into private hands. According to the OECD, at the end of 1997, 62% of agricultural land was considered privately owned, while the remaining 38% was still formally owned by the state or local municipalities (educational farm facilities, breeding farms and etc.). The majority of privately owned land, however, is in the form of land shares and is used by successor structures of the former state and collective farms. However, only about 50% of the farms legally secured the use of such land by entering into land share lease agreements or contributing the land shares into the authorized capital.
- **Table 3.1** reflects the use of arable land. The structure of land use has not significantly changed during the last several years. The various forms of agricultural enterprises still farm on most of the land (81.9%), while share of household plots is only 6%, and individual farms control 6.9%. At the same time, official land records reflect the actual land use by different types of farms rather inaccurately, especially with respect to household plots whose owners, in addition to the land formally given to them, also use some lands belonging to agricultural enterprises (so-called field allotments) and rural municipalities (mostly pastures and hayfields). According to the Agrarian Institute, the actual area of agricultural lands used by household plots is about 28 million ha.

Table 3.1: Land Use Structure by Farm Type and Land Use Type, as of Jan. 1, 2000

	total area	area used as	
		arable land	fodder area
<i>in million hectares</i>			
Agricultural land, total	197.6	120.9	72.6
- agricultural enterprises	161.8	104.0	55.3
- household plots	11.9	4.9	5.7
- individual farms	13.5	10.4	3.1
<i>in percent, by farm type</i>			
Agricultural land, total	100.0	100.0	100.0
- agricultural enterprises	81.9	86.0	76.2
- household plots	6.0	4.1	7.9
- individual farms	6.9	8.6	4.3
<i>In percent, by land use type</i>			
Agricultural land, total	100.0	61.2	36.7
- agricultural enterprises	100.0	64.3	34.2
- household plots	100.0	41.2	47.9
- individual farms	100.0	77.0	23.0

Source: Agro-Industrial Complex in Russia, Goskomstat, 2001, p. 12.

- Due to the growing dependence on household plots, the bulk of production has shifted to the private sector. In 2000, 53.9% of the total agricultural output came from the household sector, an additional 2.5% came from individual private farms, while the statistically measured contribution of the large-scale farming sector was only 43.1%. This picture reflects the failure of the large-scale farming sector to improve efficiency and productivity in a way one might have anticipated in a market economy environment. However, it should be noted that the output of agricultural enterprises increased by 5.4% in 1999 relative to 1998 and 4.5% in 2000 relative to 1999 while the respective figures for household plots and other lands belonging to the population were 2.9% and 4.4%. As a result, the share of agricultural enterprises in gross agricultural output increased from 39.2% in 1998 to 43.1% in 2000 while the share of household plots reduced from 58.6% to 53.9%.

The comparison of the output of large-scale farms to actual land use, suggests that a significant portion of resources and outputs of large-scale farms are being utilized through the household plots.

Household Plots and Other Lands Belonging to the Population

According to official statistics, in 2000, about 6.1 million ha was used by about 15.5 million household plot owners, with plots averaging 0.39 ha. In addition to household plots, the category of lands belonging to the population includes collective and individual gardens kept by about 14.1 million households on the total area of 1.3 million ha, with the average plot size of 0.092 ha., as well as collective and individual orchards and vegetable gardens kept by 5,134 thousand households on the total area of 437 thousand ha, with the average plot size of 0.085 ha.

Initially, the household plots were designed to produce products mainly for self-consumption. However, already during the communist era, these plots were used to produce products for the market. But in this transition period, their production remains largely oriented to self-consumption and not the market. Many families are able to survive only due to production from their household plots. The share of marketed production in the total production of grain, potatoes, vegetables, and eggs in household plots did not exceed 10% in 1999; the marketability of milk production was 16.8%, for cattle and poultry it was 23.4%.

Currently, about 54% of total agricultural output is produced by the household farming sector, and the share of household plots is even higher in vegetable, potatoes and fruit production (see **Tables 3.2** and **3.3**). These statistics show the significant (but largely invisible) linkages that have developed between the household and the large-scale farming sector. The large-scale farming sector provides inputs and services for the household sector. A significant portion of large-scale farm output is used by livestock activities of the household plots, as well as, utilized through the household plots. As was indicated earlier, the high indebtedness of large-scale farms has often led to situations where household plots are used as a shelter against outside debt collection and tax obligations. Local rural administrations also support household plots by renting them hayfields and pastures belonging to the municipality, etc.

Table 3.2: Share of Farm Types in Total Production, 1995-2000, in percent

	Agricultural enterprises				Household plots				Individual farms			
	1995	1998	1999	2000	1995	1998	1999	2000	1995	1998	1999	2000
Grain	94.4	92.2	92.0	90.7	0.9	1.0	0.9	0.9	4.7	6.8	7.1	8.4
Sugar beet	95.9	95.2	93.8	94.4	0.6	0.8	0.8	0.7	3.5	4.0	5.4	4.9
Sunflower seeds	86.3	87.6	86.1	84.4	1.4	1.5	1.3	1.4	12.3	10.9	12.6	14.2
Potatoes	9.2	7.8	7.0	6.5	89.9	91.2	92.0	92.4	0.9	1.0	1.0	1.1
Vegetables	25.3	18.6	20.9	19.9	73.4	79.6	77.0	77.9	1.3	1.8	2.1	2.2
Meat, incl. Poultry	50.2	41.5	38.7	40.6	48.2	56.8	59.3	57.4	1.6	1.7	2.0	2.0
Milk	57.1	50.1	49.1	47.8	41.4	48.3	49.2	50.5	1.5	1.6	1.7	1.7
Eggs	69.4	69.5	70.0	70.8	30.2	30.1	29.7	28.8	0.4	0.4	0.3	0.4
Total GAO	50.2	39.2	40.8	43.1	47.9	58.6	56.7	53.9	1.9	2.2	2.5	3.0

Source: Agro-Industrial Complex in Russia, Goskomstat, 2001, p. 13.

Table 3.3: Animals by Type of Farm, 1994-2001

	1994	1996	1997	1998	1999	2000	2001
<i>Number of animals in all farm types, in million heads</i>							
Cattle	43.3	39.7	35.1	31.5	28.5	28.0	27.2
o.w. cows	18.4	17.4	15.9	14.5	13.5	13.1	12.7
Pigs	24.9	22.6	19.1	17.3	17.2	18.3	16.4
Sheep and goats	34.5	28.0	22.8	18.8	15.6	14.8	14.4
<i>Percentage share of agricultural enterprises in</i>							
Cattle	-	69.8	67.5	65.3	63.4	62.3	60.7
o.w. Cows	-	60.0	57.6	55.4	53.7	52.6	51.1
Pigs	-	65.0	60.4	58.0	56.9	54.6	51.4
Sheep and goats	-	48.2	43.6	38.6	34.8	32.7	31.4
<i>Percentage share of household plots in</i>							
Cattle	-	28.7	31.0	33.1	34.8	35.9	37.4
o.w. Cows	-	38.4	40.8	42.9	44.4	45.5	46.9
Pigs	-	33.4	37.9	40.2	42.9	42.9	45.9
Sheep and goats	-	47.9	52.4	56.3	59.7	61.8	63.3
<i>Percentage share of individual farms in</i>							
Cattle	-	1.5	1.5	1.6	1.8	1.9	1.9
o.w. Cows	-	1.6	1.6	1.7	1.9	1.9	2.0
Pigs	-	1.6	1.7	1.8	0.2	2.5	2.7
Sheep and goats	-	3.9	4.0	5.1	5.5	5.5	5.3

The role and the future of the household plots is frequently debated issue in Russian agriculture. Agricultural policy makers tend to neglect this sector, though it provides the bulk of the agriculture and food commodities for the country. The support services and input supplies remain tied to local large-scale farms, to which household plot users belong. There is no government strategy to support productivity enhancement in this sector. The current role of the household sector is obviously a sign of the failure to create a market-based, more productive, agricultural sector. In the case of accelerated restructuring of large-scale farms and the emergence of private-based commercial farming activities, the current type of household farming is likely to undergo a significant transformation. Most household plots would become part-time or hobby farms for their owners as has happened in Central and Eastern Europe. Some household

plots characterized by a highly commercialized production would become individual farms. If large-scale farming remains as it is currently configured, the present household “farming” system will remain a long-standing phenomenon. Accordingly, public goods should be provided to household plot owners (either directly, or under the umbrella of a large-scale farm) on a short-term basis to enhance productivity and quality in this sector.

Individual (Family) Farming

The individual family farming sector, operates on 13.5 million ha or about 6,9% of agricultural land in Russia. After the demise of the Soviet Union, the number of individual family farms increased quickly to 280,000 by 1995. In recent years, however, development of the individual farming sector has stopped and the number of individual farms has even declined somewhat from 1995 levels to 261.7 thous. in 2000. The initial rise in the number of farms was supported by several factors, including preferential credits and relatively easy access to machinery. This situation has changed in recent years. Currently, individual family farms are facing serious operational difficulties and are also handicapped by the lack of competitive input and output markets.

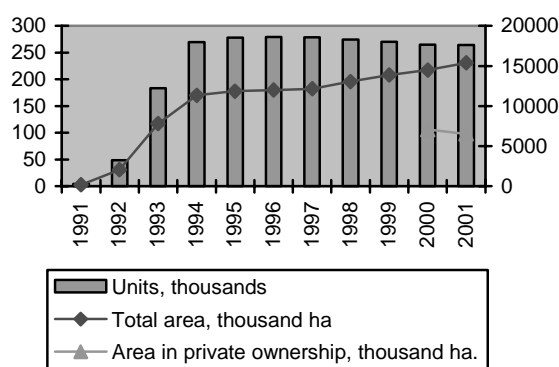
By the beginning of 2001 an average individual farm operated on about 58.3 ha, with the average farm size increasing every year. However more than 50% of individual farms have less than 50 ha. Fourteen percent have less than 3 ha (see **Table 3.4**).

Table 3.4: Land Use Structure by Individual Farm Size (as of Jan. 2000)

	number of farms [1000]	share in number [percent]	total area of farms [1000 ha]	share in total area [percent]
landless	1.6	0.6	-	-
<= 3 ha	37.3	14.3	88.6	0.6
4 - 5 ha	24.0	9.2	107.2	0.7
6 - 10 ha	37.8	14.5	306.9	2.1
11 - 20 ha	45.3	17.4	757.3	5.3
21 - 50 ha	52.3	20.0	1,936.2	13.5
51 - 70 ha	17.2	6.6	1,092.9	7.6
71 - 100 ha	15.4	5.9	1,345.6	9.4
101 - 200 ha	18.5	7.1	2,765.2	19.2
> 200 ha	11.6	4.4	5,984.2	41.6
total	261.0	100.0	14,384.1	100.0

While the total land area operated by individual farmers is increasing, the amount of agricultural land owned by individual farmers is shrinking, with individual farmers preferring to lease land from local municipalities and owners of land shares.

Figure 3.1: Number of Individual Farms and land area used by them



The modest accomplishments in establishing individual private farming have been modest for a variety of reasons:

- Political and Legal Uncertainty.** Controversy over the outline of the general reform program has distracted the attention from the sectoral agenda, and frequent changes of legislation have created a sense of uncertainty about the future course of reform.
- Lack of Supportive Environment.** Functioning markets for farm inputs and products have not yet emerged, which impedes successful operation of the new privatized agriculture. The financial sector is in disarray. Mortgage finance is an important instrument of agricultural lending for private investment, but its development requires security of tenure, legal title to land that can be used as collateral, and existence of land markets that can provide an objective valuation of land. Land markets do not fully function at present because sales of some types of privately owned agricultural land are still subject to a moratorium, despite repeated attempts by the government to change the law. Fully functioning land markets, including unconstrained purchase, leasing, and mortgage of land is necessary if Russia is to develop its potential for high-yielding, high-value agriculture, which is consistent with its natural endowment and is essential for supporting rural incomes.
- Inadequate Mechanisms for Restructuring and Exit.** Procedures for further restructuring at the farm level are still inadequately developed, and individuals and farm managers lack basic information about available options. The mechanism for exiting collectives with land and assets is hardly operational. Legally accepted procedures have to be developed for groups of shareholders to present a proposal of separation, or less radically, a proposal of internal regrouping, including specification of the land and assets the group would like to receive for its use. Procedures are also needed for adjudication of disputes that arise when the remaining shareholders do not approve a specific separation proposal. (At present, such

procedures are stipulated in Presidential decrees and Government resolutions rather than federal laws).

- **High Risk and Lack of Instruments for Risk Management.** Political uncertainty, lack of clarity in program design, and macro-economic instability create a risky environment for private farming, and yet even basic instruments such as secure savings and insurance are not available. Continued high inflation increases the risk for agricultural producers, and encourages the retreat from markets into internal distribution and inventory accumulation. Participants in land reform and farm restructuring are likely to opt for remaining within larger collective units, where distributions in kind provide a hedge against erosion of cash incomes.

The role and future of individual family farming has been a long debated issue which cannot be separated from the future evolution of the large-scale farming sector. In Russia, this sector has developed slower over the last decade than many western observers and local experts had anticipated. The above mentioned constraints prevented the individual farming sector from becoming a major component in Russian agriculture. Right now, all the components of the farming sector: large-scale farms; household plots; and individual farms, have major efficiency problems and are constrained by federal and local policies and inadequate markets. The unavoidable further change in the large-scale farming sector and the pressure of farm debt will most probably lead to a new configuration in the relative roles of the various current farming components. While it is not probable that individual farming will attain a role like that in Western Europe and North America, their role will undoubtedly be a substantial one, if hard budget constraints and transparent financial policies are imposed upon the sector (especially on the large-scale farms).

The Evolution of the Large-Scale Farming Sector

Since 1991, there have been continuous attempts to reorganize the large-scale farms and improve their efficiency and productivity. These attempts, however, have not brought significant results, since the reorganization was mainly restricted to changes in legal form (provision of land and asset shares to members). By the end of 1999, 68% of former state and collective farms had registered in new legal forms, but only a few actually broke up into smaller, successful enterprises, and relatively few members left to form their own individual farms. In January 1997 there were 27,000 large and medium agricultural enterprises compared to 25,500 in 1991. In addition, more than 14,000 small enterprises (less than 50 employees) were partially engaged in some sort of agricultural production. **Table 3.5** shows the various forms of large and medium farming organizations that emerged in the transition. Although formally more than two-thirds of the large farms can be listed as operating under a new structure, the actual changes in farm operations have been very limited.

Table 3.5: Structure of Farming Enterprises by Type, as of Jan, 2000 (%)

	<i>percent</i>
Joint stock companies, open	3.8
Joint stock companies, closed	14.3
Limited partnership	14.8
Association of farms	2.6
Cooperatives	33.0
Kolkhozes (non-restructured)	13.0
Collective farms	5.5
Sovkhozes	3.7
State Enterprises	5.3
Other	4.2
TOTAL	100.0

Most of the large-scale agricultural enterprises have distributed land and asset shares to their members. This has included the distribution of 117.6 million ha of agricultural land to 11.9 million individuals living in rural areas. As of January 1, 2000 only about 65% of them have made the decision as to what to do with their land shares and more than 92% of them have preferred to lease their land back to large farm enterprises. About 3.3% of land share owners have preferred to invest their land shares into the capital stock of large corporate farms (most of which have emerged from former state and collective farms). Most of the land operated by large farming enterprises is not owned by them, thus creating uncertainty and instability in that sector. Yet, the internal structure has largely remained along the lines of the former collectives, and only a few instances have been noted of imaginative and creative efforts to re-organize these farms into smaller, functionally independent, and more efficient units.

In addition to the changes in legal form and the initial steps toward privatization, one can also observe significant further evolution of large-scale farms. There is only a small percentage of large-scale farms that continue to operate successfully while maintaining the traditional collective farm approach. Basically, four different paths of change can be noted:

- Break-up. This is the most radical mode of change, resulting in complete liquidation of the old farm and its division into smaller, but often still relatively large-scale owner-operated family farms, agricultural cooperatives, or other legal forms of operation. Economically, and technically, this re-organizational pattern offers the greatest potential for efficiency and productivity improvements.
- Privatization and ownership concentration within the previous framework. In this case, the large farm property and land entitlements are concentrated in the hands of a small group of owners (in most cases the former managers) through the purchase, exchange, and leasing of land shares. These farms have retained skilled and motivated personnel and are capable of operating profitably. These enterprises are already large commercial farms, with a few (sometimes only one) operators, and employ only a small number of permanent workers, and lease additional land from local residents. This model also offers a path toward more efficient and effective farming. Without the creation of alternative job opportunities and the recovery of the surrounding non-agricultural, rural economy, this model might not be social acceptable to the majority of former members of state and collective farms.
- Shelter for private operations in the framework of household plots. In this case, the large-scale agricultural enterprise preserves its status and continues to operate, however, in reality, the main reason for its continued existence is to support the members' individual farming operations on the basis of their household plots. The large farm assets are used mainly to serve household plots to provide inputs, specialized marketing and machinery services, and to produce feed for household livestock operations. The large-scale farm also functions as a hedge against taxation and repayment of accumulated debt. These farms are mainly engaged in barter exchange, and other non-monetary transactions, while the cash-based transaction are handled on an individual basis by the members, and provide a conducive framework for moving toward family-based private farming.

- Technical bankruptcy and continuing deterioration. In this case, the large-scale farm still maintains its initial framework and collective mode of operation, with declining productivity and worsening financial results. This type of farm is typified by an increasing debt overhang and very low motivation on the part of its members. There are hardly any new investments in such farms and the initial capital stock is gradually withering away.

According to several estimates, up to now, only about a maximum of 10% of the large-scale farms belong to the first two groups mentioned above, or farm successfully according to the old pattern. The remainder of the farms belong to the third and fourth categories, with declining outputs and productivity. The high indebtedness of these farms has made the so-called “farm-debt problem” the most visible sign of failure in farm restructuring efforts, as well as the most significant roadblock for meaningful change.

While the restructuring of Russia’s large-scale farms has the potential for improving productivity and efficiency of agriculture, the accomplishments (similar to Ukraine), have been very modest. The major reason for this is that the overall economic and policy environment has not improved. Quite the contrary, it has remained the major impediment to creating market-based agriculture enterprises. Additionally, the lack of a recovery in the non-agricultural parts of the rural economy have further limited the scope of any meaningful restructuring in the farming sector.

Comparative analysis of all ECA countries suggests that genuine macro-economic and political reforms and overall economic recovery are the driving forces for reform and economic recovery in the agricultural sector. Countries in the advanced stages of overall economic reforms with healthy GDP growth also show respectable agricultural performance. General economic recovery is closely correlated with market-oriented policy and institutional reforms. Thus, it is hard to expect significant recovery in Russian agriculture, despite restructuring efforts, as long as economic decline continues and as long as policy and institutional reforms remain sluggish. Under the current overall economic and policy environment in Russia, even the international donor-sponsored farm restructuring projects backed by significant resources (such as the famous Nishni-Novgorod experiment) have had only limited results, and therefore never became a basis for nation-wide farm restructuring programs.

The prospects for meaningful farm restructuring, and for Russian agriculture in general, will largely be determined by a willingness to adopt a number of basic policy measures:

- macroeconomic stabilization that would lead to an enhanced demand for agricultural products;
- drastic reduction of government intervention in agriculture (including intervention in grain marketing and farm exports);
- radical change in inimical attitude of local bureaucracy to rural reform and relaxation of the inflexible bureaucratic procedures inherited from the administrative command regime;
- introduction of hard budget constraints and imposition of strict financial discipline on farm enterprises (to be implemented in conjunction with a comprehensive program of old debt restructuring and a tangible threat of bankruptcy proceedings for farms that default on new debt);

- revision and simplification of the complex and onerous tax system for agriculture;
- development of alternative employment opportunities in rural areas to allow shedding of agricultural labor as a prerequisite for productivity improvement; and
- speedy resolution of the impasse with maintenance and development of rural society infrastructure through allocation of necessary budgets to local governments.

Farm-restructuring projects implemented by international donors unquestionably made an important contribution to Russia on the level of technical assistance: people participating in these projects are much better informed about their options and much more motivated to stand on their rights than the average rural resident. They have accumulated significant positive experience and a substantial knowledge base for further work. Yet the long-term success of these rural initiatives and their country-wide acceptance depend on the emergence of a supportive policy and institutional environment, and the ability of the Russian government to achieve the beginning of an overall economic recovery, as well as real reform and restructuring of the farming sector.

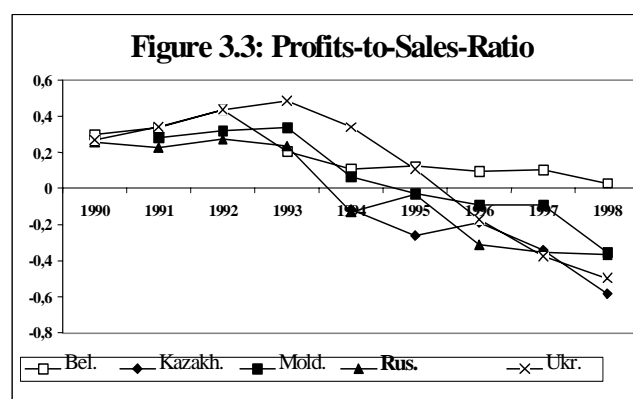
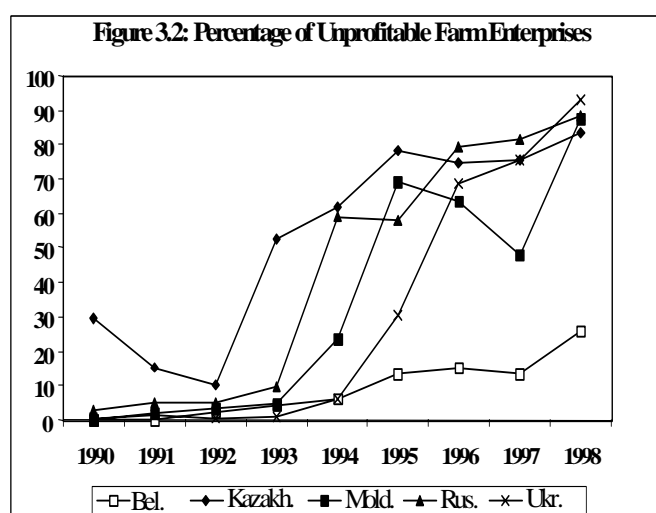
The Challenge of the Farm Debt Problem and the Future of Large-Scale Farm¹

Farm Profitability and Indebtedness

The failure of farm enterprises to restructure their operations in response to changes in the macroeconomic environment accelerated the general decline in the ability of farms to generate profits. The number of non-profitable farms in Russia increased dramatically during the 1990s (**Figure 3.2**), and almost 90% of all Russian farms (similar to Moldova and Kazakhstan) were unprofitable in 1998. Unwillingness or inability to change the cost structure and the product mix led to the unpleasant situation whereby, after 1994-95, profits were negative (losses), and which, furthermore, grew more negative over time (**Figure 3.3**).

Table 3.6 shows the factors underlying low or negative profitability of the farming sector in Russia in a regional comparison.

- The share of output sold in total gross output is declining. This implies that less cash revenue is generated per unit of production and more of the output is used



¹ This section is based on Csaki, Lerman, Sotnikov, "Farm Debt in the CIS: A Multi-Country Study of the Major Causes and Proposed Solutions" World Bank Discussion Paper, 2001 (forthcoming.)

for internal needs, consumption, and possibly barter.

- The efficiency with which assets are employed to generate sales (the sales-to-current assets ratio in **Table 3.6**) is declining over time.
- Beginning from 1996, the value of sales was not enough to cover current liabilities of the average farm.
- Since 1995-96, cost of goods sold in Russia exceeded sales revenue, profits were negative (losses).
- Labor costs per unit of sales are generally declining. This, however, is primarily a reflection of the faster increase in the cost of industrially manufactured inputs, and not the result of a decreasing labor force.

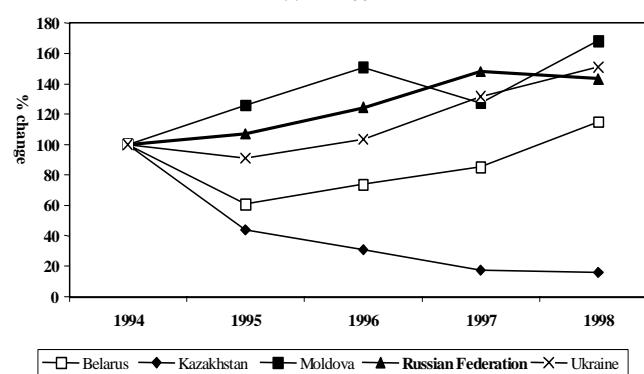
Two additional factors inherited from the command economy are generally regarded as effectively reducing the level of farm profits. These factors are maintenance of rural social infrastructure and support of the production activity of household plots. Expenditures on social infrastructure are included into production costs of typical farm enterprise and may lead to lower profitability. In Russia the decision to transfer the responsibility for social assets to local governments was made in the mid-1990s. These decisions have not been implemented, however, due to insufficient budgets in local communities. On the other hand, the compensation that farms receive from the central government for social infrastructure maintenance has decreased. In Russia, only 10% of the actual expenses on provision of social services is reimbursed from the budget. There are no reliable estimates of the share of social infrastructure costs in total farm costs. The problem is probably less serious than is generally believed, because the overall level of social expenditures is declining over time.

Two views of farm debt over time – in nominal US dollars, and in real index numbers (**Figure 3.4**) – show significant accumulation of debt in Russia during the 1990s, as was the case for other countries in the CIS as well. The total farm debt for the five CIS countries reached nearly \$30

Table 3.6: Major indicators of sales performance and debt

	1994	1995	1996	1997	1998
Sales in percent of gross agricultural output					
Belarus	72	76	75	74	70
Kazakhstan	59	84	79	61	71
Moldova	89	80	78	75	54
Russia	46	56	44	48	51
Ukraine	67	51	51	54	53
Sales-to-current assets					
Belarus	0.87	1.45	1.36	1.39	1.08
Kazakhstan	0.84	1.00	1.11	1.14	0.92
Moldova	1.02	1.05	0.98	1.12	0.78
Russia	1.14	0.94	0.80	0.75	0.74
Ukraine	1.68	1.01	0.92	0.84	0.76
Cost of goods sold per unit of sales					
Belarus	0.90	0.88	0.91	0.92	0.97
Kazakhstan	1.08	1.19	1.22	1.30	1.53
Moldova	0.89	1.03	1.09	1.09	1.19
Russia	1.13	1.03	1.30	1.34	1.36
Ukraine	0.54	0.78	1.00	1.13	1.25
Labor cost per unit of sales					
Belarus	0.21	0.27	0.26	0.21	0.25
Kazakhstan	0.36	0.29	0.25	0.31	0.34
Moldova	0.44	0.38	0.35	0.29	0.33
Russia	0.55	0.36	0.38	0.37	0.35
Ukraine	0.34	0.35	0.41	0.45	0.47

Figure 3.4: Changes in Real Value of Total Debt per Farm, by Country, 1994 = 100



billion in 1997, more than double the dollar level of debt in 1994 (**Table 3.6**). Because of its sheer size, Russia accounts for the lion's share of total farm debt in CIS: 70% of the five-country debt in 1997. It is followed by Ukraine (20%), Kazakhstan (5%), and Moldova and Belarus (2% each). The sharp devaluation of the Russian ruble in 1998 produced a pronounced downward adjustment of the dollar farm debt in Russia. By official figures (which may not be directly comparable to those in Table 3.7), the debt per farm stood at \$340,000 in January 2001 (see **Table 3** in the Executive Summary).

The pattern of increases in farm-level debt (i.e., debt per farm enterprise) between 1994-98 is on the whole similar to the pattern of growth in total country-level debt. This is so because the number of farms in each country remained relatively constant, and the per-farm debt generally tracks the total farm debt. The average debt per farm in Russia in 1998 was about \$421,000, which was second largest among the CIS countries examined (**Table 3.7**).

Can agriculture repay its accumulated debt? Or will the governments need to intervene in the near future with massive debt write-off programs at the expense of the taxpayer? The output produced by the agricultural sector is the main source of repayment capacity. The ratio of

farm debt to gross agricultural product increased significantly for all CIS countries (except Belarus). The level of farm debt in Russia in 1998 was equal to 84% of the annual agricultural product, up from about 37% of product in 1994. Almost one full year's agricultural product is thus needed to repay the sectoral debt. In the US, farm debt is less than 40% of output, and this ratio has remained constant over time. The increasing trend and the actual level of farm debt relative to agricultural product in Russia seems to suggest that debt repayment from resources generated by the sector itself may be problematic.

Another indication of an increasing burden of farm debt in Russia is provided by the ratio of farm debt to GDP. The share of farm debt in GDP doubled between 1994-98. The burden of the farm debt on the government budget is expressed by the ratio of farm debt to budget ratios. This ratio, in Russia, is 18%, and does not appear to be a strikingly high number. The fact that the farm debt share in the government budget more than doubled, when compared to 1994, indicates, however, the worsening situation.

Why Debt is Accumulating

Technically, farm debt is growing because of inadequate farm profits. On a substantive level, however, the accumulation of debt is attributable to lax financial discipline made possible by the persistence of soft budget constraints.

In market economies, the allowable level of debt is limited by the risk of bankruptcy. Farms, as all business enterprises, operate under hard budget constraints: if they are unable to generate sufficient profits to repay their financial obligations, they go out of business. In socialist

Table 3.7: Average Debt Per Farm, 1994-98 (US\$ '000)

	1994	1995	1996	1997	1998
Debt per farm enterprise (US\$ '000)					
Belarus	108	169	272	262	345
Kazakhstan	706	843	709	428	394
Moldova	281	359	507	461	386
Russia	253	482	663	787	421
Ukraine	218	203	335	486	465

economies, on the other hand, farms operated under soft budget constraints: they always relied on flows of funds from the state to cover their losses and repay their debts. The mentality of soft budget constraints apparently has persisted in Russia during transition. Unprofitable farms with steadily rising levels of debt do not go bankrupt. There are no self-limiting risk mechanisms on the amount of accumulated debt. They are able to continue borrowing from suppliers, from the state, and sometimes even from commercial banks, presumably because everybody – the borrowers and the lenders – believe that the government will not let the large farm enterprises go bankrupt and will continue to arrange for periodic bailouts.

Persistence of soft budget constraints makes debt accumulation possible, while lack of profitability makes debt accumulation necessary. Lack of profitability in Russian farms can be attributed to a mix of two broad groups of factors: external policy-related factors and internal farm-level factors.

External factors related to government policies – elimination of direct producer support, control of food prices exacerbating the deterioration of terms of trade for agriculture, restrictions on trade in agricultural commodities – certainly have a negative impact on farm profitability and thus lead to accumulation of debt. More important and more fundamental, however, are the internal farm-level factors related to the traditional collective farm structure, which basically has not changed during the decade of farm reorganization in Russia.

- The farm enterprises have not reduced their size to more manageable dimensions.
- Farm managers are still committed to provide all members with jobs, regardless of cost-efficiency considerations.
- Farm enterprises are obliged by tradition and sometimes by government pressure to maintain the social infrastructure in the village, including the traditional free support to household plots.
- Farm operations remain largely production oriented, with no overriding emphasis on markets, consumers, and sales: some farm managers are still production maximizers, not profit maximizers.
- Member-workers continue to function in a traditional collective environment, without any direct accountability for the results of their effort or their contribution to profits and losses.

All these internal reasons are obstacles to improving the cost-efficiency of farms and necessarily lead to suboptimal profits. As long as Russian farms continue their strategy of formal reorganization, avoiding radical internal restructuring prescribed by market principles, they will not be able to improve their efficiency and profitability.

Yet the governments' attitude and policies in Russia create only modest incentives for the farms to restructure. Persistence of soft budget constraints allows unprofitable farms to continue to exist and does not create any pressure for restructuring and internal reform. While production targets have been largely eliminated, both central and regional governments in Russia often set fixed procurement prices and demand preferential deliveries to state organizations instead of purchasing food products through market channels at competitive prices. In return, the governments compensate the farms with soft credits for these loss-making operations, as well as

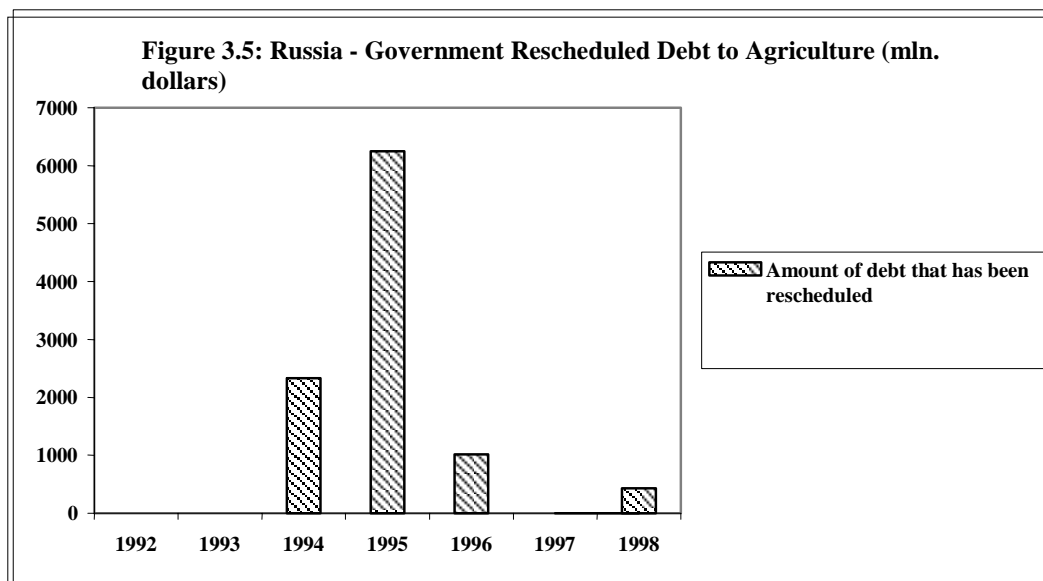
for their special role as caretakers of the social rural infrastructure and providers of lifetime employment to rural population.

The ultimate solution to improving profits and thus reducing the burden of debt is basically internal. In response to changes in the economic and political environment, the farms must reorganize and restructure for greater cost efficiency and higher productivity. This is what farms in market economies normally do to remain profitable in a changing world, and this is the lesson that farms in Central and Eastern Europe successfully adapted to their transition in the 1990s. Government policies, in turn, must be changed to eliminate the disincentives that have so far prevented most farms from switching to a genuine market orientation. Specifically, government should stop imposing loss-making activities on farm enterprises, on the one hand, and cease allocating morally destructive soft credits, on the other.

Attempts to Resolve the Farm Debt Problem

The policy instruments that were used during the 1990s to deal with farm debt in Russia changed from write-offs and unconditional rescheduling to conditional rescheduling and financial rehabilitation (**Figure 3.5**). Application of the bankruptcy law to agriculture is still very limited.

In 1998, the government decided on massive rescheduling of farm debt for five years, with payments to start from January 2000 at an annual interest rate of 5% on outstanding debt. The 1998 rescheduling was conditional on the farms' ability to continue discharging their current obligations in a timely manner. The deferment included 5.7 billion rubles to the federal budget, 10 billion rubles to the pension fund, 2.5 billion rubles to social security, 1.5 billion rubles to medical insurance, and 1.5 billion rubles to unemployment insurance. The social security fund and unemployment insurance wrote off all penalties for previous non-payments. Another 3.5 billion rubles was written off in 1999 as a compensation for regions with unfavorable natural conditions.



One of the weaknesses of the present debt rescheduling schemes in Russia is the lack of coordination between various creditors and suppliers that have the right to block the farms' accounts in case of nonpayment. While relief from government debt ensures that the government will refrain from blocking the farm's account, there is no guarantee that another parastatal – a power utility or a fuel supplier – will not put a new restraint on the farm.

The participation of agricultural producers in debt rescheduling programs in Russia is voluntary, and only few farms decided to take part, presumably because of the compliance conditions attached to the scheme. Bankruptcy is regarded as a viable alternative to debt rescheduling. So far, however, there have been very few applications of the bankruptcy law to farms. The government body in charge of bankruptcy proceedings decided back in 1994 not to engage in farm bankruptcies, concentrating its limited resources on monitoring the financial performance of much larger debtors. As a result of this policy, only 71 of 27,000 farms in Russia were involved in bankruptcy proceedings as of 1999.

The efficiency of the bankruptcy law depends on several criteria:

- The definition of insolvency;
- Opportunities for financial rehabilitation; and
- The order of priority of creditors' claims on farm assets.

According to the Russian Law on Bankruptcy, any company (not necessarily a farm) can be declared bankrupt if it does not pay its obligations within three months after due date and the level of debt is at least 500 times the minimum wage. The decision of the Arbitration Court is needed to declare a company bankrupt.

In Russia, the bankruptcy law is biased against the rights of the creditors. The claims of secured creditors are preceded by the claims of bankruptcy administrators (court and administration expenses) and the claims of members and workers (disability and health claims, wage arrears, social payments), while unsecured non-government creditors are at the bottom of the order of priority.

The Russian order of priority is similar to that in Germany, Holland, Hungary, and Poland (**Table 3.8**). In the USA, on the other hand, secured creditors have the first priority in settling claims, (a similar situation is observed in the Czech Republic).

In addition to the obstacles associated with the relatively low order of priority, creditors are deterred by the high cost of court proceedings and the low probability of being paid even in case of a favorable judgment. The total absence of a system of lien registration in Russia makes collateral and security extremely nebulous concepts. The secured creditor has no control over the collateralizing asset, and assets offered as collateral can and have been sold in the same pool with other assets.

Because of these difficulties and complications, bankruptcy proceedings are seldom invoked for settling debts in Russia. Instead, creditors use the more flexible arbitration courts to get an order allowing them to seize some of the most valuable assets without taking the debtor through full-scale liquidation. The seized assets are then auctioned to cover the debt.

Table 3.8: The Order of Satisfaction of Creditors' Claims

	Russia	Kazakhstan	USA	Germany, Holland	Hungary	Poland	Czech Republic
Court expenses	1	1	2	1	1	1	1
Administrative expenses	1	1	2	1	1	1	1
Creditors with collateral	3	2	1	2	2	2	1
Other creditors	5	5	3	4	4	4	3
Payment of wages	2	3	2	1	1	1	1
Tax authorities	4	4	2	3	3	1	2
Social funds	4	4	2	3	3	3	2

Source: TACIS, *Farm Insolvency in Russia: Identified Problems and Possible Solutions*, Project RF27, Brussels, August 1999, p. 36.

The government has most recently attempted to address this issue with a resolution on June 8, 2001—the Resolution on Agricultural Debt Restructuring. This Resolution sets up a process for restructuring arrears (the principal, fines, and penalties) on federal taxes and duties and social charges and payroll taxes to the budgets of the government extra-budgetary funds. After acceptance into the program, a farm is allowed to repay arrears on federal taxes and duties and insurance payments to the budgets of the government extra-budgetary funds during 6 years (in equal installments). Arrears on fines and penalties must be settled during the subsequent 4 years (in equal installments). After one third of the arrears have been repaid (and in case a farm made current payments properly during 2 years after it was accepted into the program), 50% of fines and penalties will be written off. If a farm pays back principal arrears during 6 years, all fine and penalty arrears should be written off during the next 4 years. If a farm fails to follow its debt restructuring schedule, the decision on its debt restructuring will be annulled. According to the

MOA, only about 800 farms participated in the Program as of October 1, 2001. The Government extended the application submission deadline till April 1 next year, but that measure can hardly lead to a significant increase in the number of farms willing to have their debt restructured on the stated terms and conditions. Some experts believe that only about 20% of farms with overdue arrears can do so.

Financial rehabilitation of agricultural enterprises remains the most urgent agricultural policy issue for the coming 10 years. Though the share of loss-making agricultural enterprises fell from 88% in 1998 to 52.7% in 1999, it increased again by 1.4% in 2000. Besides, the share of farms with overdue arrears is still high: 89.1% (2000). According to the Agrarian Institute, only 22% of agricultural enterprises may be classified as financially viable; another 17% are temporarily insolvent (see **Table 3.9**).

Table 3.9. Groups of Agricultural Enterprises in Russia: 2000

	Groups of farms				
	I – Financially viable	II – Temporary insolvent	III – Insolvent	IV – Bankrupt	V – Farms with destroyed financial and economic system
Number of farms	6,208	4,820	4,379	4,617	7,745
% of the total	22	17	16	17	28
Share, %					
in commercial production	52	21	12	9	6
in overdue arrears	8	15	19	21	37
Per employee, thousand rubles					
Sale proceeds	76	52	39	31	20
Balance sheet profit	17	4	-0,1	-7	-14
Accounts payable, total	20	36	48	54	83
including overdue accounts payable	6	18	28	34	54

Source: the Agrarian Institute data

It should be noted that the number of farms in the first and last groups tends to grow. These data indicate that the Government is still pursuing an inefficient financial rehabilitation policy in respect of agricultural enterprises.

First of all, it is worth noting that financial rehabilitation is being approached from the accounting positions as a purely financial or debt restructuring issue. In fact, it is primarily a structural task related, first, to the improvement of agricultural market conditions; second, to land and liquid property transfer to efficient owners and users; and third, to relieving agricultural enterprises from the burden of expenditures on services to household plots (these relations shall be commercialized), as well as expenditures on maintaining rural social and physical infrastructure assets.

Second, when making debt restructuring decisions, the government usually confines itself to the arrears to the public budget and extrabudgetary funds, without attempting to involve in the restructuring process large commercial creditors (primarily RAO UES and Gazprom) or regional and local budgets.

Third, investors are not actively involved in the financial rehabilitation of insolvent enterprises, which is related, in particular, to uncertain land plot titles.

What Can be Done to Resolve the Farm Debt Problem – Why Not Simply Allow Bankruptcy?

Accumulation of farm debt is caused by two sets of factors: external factors related to government policies that produce a non-conducive economic environment for farm operation, and internal factors related to farm organization and structure that lead to low productivity and growing losses. Effective resolution of farm debt requires governments to address both sets of factors. Only then can they decide to invoke bankruptcy, which is the standard market tool for dealing with highly indebted insolvent farms.

In market economies, unprofitable farms that are unable to repay their liabilities are declared bankrupt by a court of law and go into liquidation. Perhaps the most obvious option for resolving farm debt would be to follow the practice of market economies and the experiences of some countries in Central Eastern Europe. Insolvent farms would be declared bankrupt and go into liquidation, clearing the stage through debt restructuring for the creation of new financially viable units. This is how insolvent farms are treated in mature market economies, and how the more successful transition countries, such as Hungary, have dealt with the resolution of farm debt problems since the beginning of transition. Indeed, many experts recommend following this path in the CIS countries as well. All CIS countries have bankruptcy laws that in principle can impose liquidation of insolvent farms with the objective of satisfying the creditors' claims (at least partially).

However, certain experiences in other parts of the world suggest that the traditional court-driven bankruptcy procedures may not offer a desired solution given the specific circumstances in Russia. First, a very large number of farms (in some countries more than 50%) are technically bankrupt in the sense that they report losses and cannot repay any debt from current cashflows. A strict approach to bankruptcy would require initiating court proceedings in a volume that is simply not practicable given the fragile administrative and judicial structures in Russia. There are no effective bankruptcy courts, and very few bankruptcy cases have actually been tried to completion in Russia.

Second, the experience in the few farm bankruptcy cases launched in Russia indicates that the lack of potential buyers for farm assets is another obstacle to formal court-driven procedures. In central and eastern Europe, subsidized credit schemes were offered by the governments to support the purchase of farm assets in the process of liquidation. Such schemes do not exist in Russia, and the rural population suffers from a severe shortage of capital. The absence of potential buyers would be a significant constraint in a mass bankruptcy and liquidation of insolvent farm enterprises.

Third, mass bankruptcy and liquidation of farm enterprises will affect the very large rural population in Russia, which is basically dependent for its livelihood on these farm enterprises, however unprofitable. By satisfying the claims of the creditors, the traditional bankruptcy procedures are likely to cause irreparable social damage to the rural population, thus producing a politically untenable situation in the transition countries, which still have no alternative employment opportunities for their farmers and peasants. This danger is particularly acute because of the unclear standing of collectively shared land in bankruptcy proceedings: courts may decide to auction off not only buildings, tractors, and livestock, but also farmland, leaving the rural families without any sources of income.

On balance, when politicians, social scientists, and even economists have to weigh the interests of creditors – businesses or government – against the interests of a large rural population, the balance would naturally tilt in favor of the rural population. After all, it could be argued that the creditors were lending to the farm enterprises in the expectation of making a profit, and if they have miscalculated, they should bear at least part of the responsibility. The rural population, on the other hand, had no say in the debt decisions and should not be penalized. Since courts would not necessarily be guided by such considerations, this is another argument against imposing traditional bankruptcy proceedings on Russian farms as an immediate solution.

Future of Large-scale Farms: Solutions for Farm Restructuring and Debt Resolution

Given the actual conditions in Russia, the optimal approach to facilitate the creation of viable farming enterprises and resolving the farm debt problem should include a set of actions that address both macro- and micro-level factors.

- Creation of an incentive system and a macro-policy framework for agriculture that allows efficient agricultural producers to make profits and to invest.
- A one-time process of expedited debt settlement conditioned on genuine internal restructuring and privatization of the farms participating in the debt-settlement program.
- Creation of necessary economic conditions for the recovery of the restructured (and entirely new) farms emerging from the debt-settlement procedure.
- Introduction of hard budget constraints forcing the farms to operate under strict financial discipline.
- Implementation of a working bankruptcy system that will prevent accumulation of new debt in farms created through the process of restructuring and debt settlement.

The unique feature of this general program is the integration of debt resolution (handled as an out-of-court managed process) with internal restructuring of farms and a shift to hard budget constraints.

Certain conditions are essential for successful implementation of such a framework:

- Legal framework for land ownership and titling is in place;
 - passing a federal law affirming the rights to buy, sell, and mortgage agricultural land;

- establishing procedures for land transactions, including leasing as well as purchase and sale;
- establishing a framework for the dissemination of land market information;
- Procedures for farm privatization have been adopted;
 - improving procedures for providing titles for physically identified parcels to individual land share owners;
 - restricting the lease of land shares;
 - privatizing remaining state-owned farms;
- There is political consensus for a complete and comprehensive approach to farm privatization and farm debt settlement; and
- The task is of manageable size and the technical implementation is feasible (e.g., adequate donor support is available).

The linkage of debt settlement with farm restructuring and privatization offers many advantages under the current conditions in Russia. Yet the implementation of an integrated program linking farm restructuring with debt settlement raises a number of fundamental issues that require close attention.

- *The relation of farm members to accumulated debt.* In an established market environment, owners are obviously responsible for any debt. In Russia, however, the farm members (the potential beneficiaries of land reform and the shareholders of new corporate structures) had no influence in the past on the decisions that led to the accumulation of old debt, and by right they should not be held liable for the full debt overhang. Strict application of the principle of owners' responsibility for the full debt would have harmful social and economic consequences for the process of land reform and farm restructuring. Socially, the implication is that a large number of collective farm members would leave the socialist system empty-handed, without a minimal inheritance from the past, even though they had not been actively involved in the past decisions. Economically, this would drastically decrease the incentives for individual farming and make the creation of viable individual farms more difficult. Yet it is hard to absolve the potential beneficiaries from all liability. The best solution is probably somewhere in the middle, for instance, to exclude the essential factors of production, such as land, animals, and basic machinery, from the pool of assets available for debt settlement, but to allow other assets to be used for debt settlement.

- *The degree of necessary farm restructuring for debt settlement.* Experience shows that if debt is written off while the farm organization remains unchanged, the result has never prevented re-accumulation of new debt. In parallel with treating the outstanding debt, it is essential to implement a genuine restructuring of the farms in line with market principles with the goal of improving productivity and profitability. Without addressing basic ownership and management problems, including the development of realistic business plans, debt restructuring programs have very little value. We recommend starting the process of restructuring with the allocation of physically identified land parcels with ownership titles to individuals. The new owners then should be allowed to choose freely the actual farm organization in which they prefer to continue using their land and other resources.

- *Policy of investor involvement in the financial rehabilitation of insolvent agricultural entities.* According to the Agrarian Institute, investors could be involved in the financial rehabilitation of 60% of insolvent farms. Potential investors include: successful agricultural entities that are extending the scope of their business; processing enterprises establishing their own raw material suppliers; sale and procurement entities; former nonagricultural enterprises trying to diversify their activities. To encourage investors to participate in financial rehabilitation programs for farms, the legislation should clearly formulate land plot purchase/sale rules; investors should be granted the debt restructuring right in case they merge or absorb insolvent farms; and a procedure for public debt sale to investors should be put in place.

- *Relation of newly created farming entities to land.* In the case of individual private farms, this question does not arise. Individual farmers cultivate their own land, and they may lease additional parcels from others. In the case of corporate farms, the method of acquiring use rights in land remains an essential question. In the initial phases of land privatization, when land markets are not yet functioning and owners are not fully aware of their rights, individuals should choose a mechanism to transfer the use rights to their land in a form that allows for relatively easy changes and adjustments in the future. The investment of land in the equity capital of a joint-stock company is thus the least desirable option because of its permanency. From the point of view of the owners' interests, a medium term lease (not longer than three to five years) is the solution that retains enough freedom for future decisions.

- *Role of government in the debt settlement process.* The governments have an obvious role in the debt settlement process, since a significant portion of the debt is owed to the government. The most obvious solution is to settle this debt (net of the amounts that government procurement owes to the farms) against the value of social assets and use the process to take the social assets off the farms' balance sheet. The debt to the government is probably the component where a write-off may be appropriate if certain conditions are met. In addition to making arrangements to resolve the government component of farm debt, the governments also need to be involved in the settlement of the remaining debt. In theory, one might argue against giving any role to the government in settling debt to the private sector. In practice, however, the potential benefits of a quick resolution of farm debt, e.g., in the form of increased tax revenues, can easily offset any expenditures and costs that the government will incur in facilitating the debt-resolution process. Therefore, the government definitely should be involved, even to the extent of using some budget resources, in reaching a full settlement of all farm debt, including debt to the private sector.

II. FOOD INDUSTRY AND MARKETING OF AGRICULTURAL PRODUCTS

Status of Agro-processing Industries

The agro-processing industry, which is capable of producing international competitive food products, is an essential pre-condition for the recovery of primary agriculture in Russia. Without an efficient food industry, Russian products will not be competitive on domestic markets, and of course, will not find export markets either. This industry should provide

markets for a large portion of domestic primary agricultural products and facilitate agricultural growth.

In the past, state enterprises have dominated Russia's economy. The country has a large agro-processing industry which was built to transform the products of Russian agriculture for a largely domestic market. A range of state-owned food plants were established around each of the larger urban centers for processing the local agricultural production. As a result of this policy a large over-capacity of agro-processing remains compared to the current output of primary agriculture. Lack of investments during the 1980s and 1990s has left most of these plants with outdated equipment; most of which is now in a poor state of repair and ill-equipped to meet the challenges of a comparative market. In many instances, the quality and range of products they are able to offer are poorly suited even for competition on the Russian market. Also, unit costs of agricultural raw materials appear to be low in comparison with other countries. Notwithstanding these low raw materials prices, inefficiencies in processing and marketing often result in a finished product cost that is relatively high in relation to quality, and which has limited competitiveness. At the same time, domestic food consumption also decreased significantly. It is not surprising, therefore, that the utilization of current agro-processing facilities is at the level of 40%-50% of technical capacity.

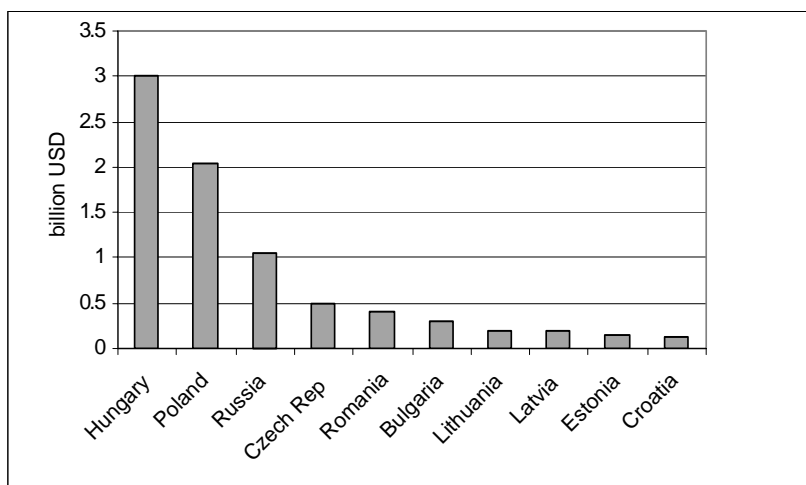
The privatization of the Russian agro-processing industry is almost fully completed. By 1996, 96% of food processing enterprises, producing 93% of food products, were fully or partly privatized. The food industry had the largest number of Russian industrial enterprises (about 5,700, or more than 20% of the total) of any economic sector, and the smallest number of employees per enterprise (273, compared to the average of 780 in 1990). This was an advantage during the privatization process. Most of the food processing enterprises were included in the general privatization program, adopted in 1992. Primary food processing enterprises involved in direct purchasing from agricultural producers, were privatized with the same special preferences given to raw material producers. State ownership, however, has been retained in some of the largest agro-processing enterprises.

The result of the privatization have been mixed, at best. As a result, a large number of new enterprises were created, increasing the number from 5,700 in 1990, to 13,700 in 1996. This change indicates a somewhat better adaptation to a more differentiated farming structure, and more differentiated consumer desires. The agroprocessing industry, however, still remains in poor shape. In the last decade, food production levels decreased almost 50%, while the total number of employed in the sector, remained relatively constant at 1990 levels. The low level of capacity utilization resulted in high fixed cost. Unfortunately, most of the new owners do not have the financial resources for technological improvement and many privatized facilities lack proper management. This agro-processing industry cannot be an engine of economic development for Russia. During the last decade, it has contributed to the implicit taxation of primary agricultural producers.

Foreign direct investment (FDI) in the agro-processing sector in Russia, and in the whole of the food and agriculture sector of the country has been relatively small (see **Figure 3.6**). Only about 3% of food processing enterprises were privatized with the participation of foreign capital. In recent years, however, a steady increase in FDI to the agro-food sector and mainly to the

processing sector has been observed. About one quarter of total FDI stock is related to the agro-food sector; out of that, 58% was invested in food processing, and 40% in food retailing and catering. The share of FDI in primary agriculture is only 2%. Foreign investors are involved, especial in the production of high-value food products such as confectionary, tobacco, baby food, and ice cream.

Figure 3.6: Cumulative Stocks of Agri-Food FDI in Central and Eastern European Countries in 1997



Source: OECD

Critical Issues for the Agro-Processing Industries

A working and efficient agro-processing industry capable of producing products for domestic and international markets, and efficient rural services, are critical elements for the improvement of the agricultural sector in Russia. Further actions are needed to create independent and private owners of agro-processing who can efficiently control management and bring in additional investments. Priority should be given to promotion of foreign direct investment and rural small and medium enterprise development. To achieve this, the following actions should be taken:

- post-privatization programs, including the revision of initial commitments in order to give owners more flexibility to change production and employment if necessary, should facilitate the restructuring and consolidation of ownership in the newly privatized processing companies;
- the emergence of secondary markets for ownership of agro-processing enterprises should be promoted and facilitated, including the promotion of foreign investment;
- strictly enforced bankruptcy legislation should be used to consolidate the newly established private sector; and
- the emergence of rural small and medium agro-processing and service enterprises should be facilitated by improved registration procedures and advice.

The quality of food products represents one of the major challenges for the Russian food industry. In most cases, the current quality criteria are lower than international standards and require extensive revision. The control of food quality and safety, notwithstanding the significant progress made in recent years in Russia, is still based on regulations originating in the 1970s and 1980s. The laws and control procedures of that system relied extensively on end product testing and state responsibility for quality rather than producer/manufacturer responsibility. Food control systems under this concept were not oriented towards food safety. The identification and analysis of critical control points were not part of the manufacturing practices in general. Currently, control services continue to rely on end product testing at most of the Russian food processing enterprises rather than a quality assurance approach based on sampling for quality throughout the production process. While the role and importance of HACCP/GMP, under which producers and manufacturers carry greater responsibility for food quality, is recognized in Russia, there are only a hand-full of multinational food processors utilizing these systems.

At each stage in the agricultural and food marketing chain, farmers and entrepreneurs should have the responsibility of ascertaining the quality of the products delivered to their clients, in particular, in relation to potential health hazards, environmental impact, and other services attached to the product. The Government of Russia is fully aware of the pending problems of harmonization with international standards, of the legislation on these matters and of its enforcement. Among the decisions that have not benefited from a similar level of attention, one could list the transfer to private sector of a rather large number of tasks currently undertaken by numerous state agencies, and a parallel reduction in the number and a substantial reassignment of the roles of implementing state agencies on standards, quality control, health safety. This new approach would include a significant change in the incentives given to food processing enterprises while adjusting to this new set of responsibilities transferred to them.

Marketing Primary Agricultural Products

The state monopoly has been replaced with the monopolistic behavior of local processing entities and dictate of regional officials. Russia's regions have in place a number of measures aimed at controlling food trade and prices, which are expressly forbidden under WTO rules. These include price controls, additional standards and certification requirements, re-establishment of monopoly purchasing, uneven enforcement of customs regulations, and other direct or indirect non-tariff barriers to trade, either among regions or with the outside world.² Sales of cereals in many regions are controlled by oblast administrations through "commodity credits." In the spring, they allocate financial resources from their local budgets for sowing purposes (in most cases, providing inputs in kind through barter deals) and in the fall they demand debt repayment using cereals and ban free sales outside the oblast. Regional (and, in fact, federal) food corporations set up as a vehicle for market regulations have, in effect, turned into some sort of oblast administration offices used for signature of the contracts that are hard

⁵ See V. Vitalis, "Second Level Regional Policies in the Russia Federation and the Multilateral Trade Rules Affecting Such Policies", mimeo, New Zealand Embassy, Moscow, September 1999.

bargains for the peasants. There are also attempts to revitalize the commodity credit system on the federal level.⁵

In the sale of many other farm products, since alternative sale options are not available, the producer is forced to sell meat, milk, vegetables, and other perishables to the nearest processing enterprise at unfavorable prices. Only a small number of the large farm enterprises have been able to expand the scope of their operation and improve their production efficiency through the construction of their own warehouse, refrigeration and processing facilities or integrate their production and business with those of the agroprocessing and trade enterprises. The law “On Parity of Prices for Agricultural and Industrial Products (Services) Used in Agriculture and Compensation of Losses Caused by Its Offense” approved by the Duma (but not yet signed by the President) authorizes annual calculations of the difference between growth of agricultural input and output prices, and mandates that agriculture’s “losses” from this be transferred back from the state budget. This law also authorizes reduced prices for agricultural inputs (fuel, energy, fertilizers) and various forms of state control over prices in agribusiness.

Recommendations

Public policy toward marketing should be aimed at development of new private channels for supplying farm products and inputs (wholesale markets, exchanges, fairs, marketing and supplying cooperatives, revival of the procurement function of the consumers’ cooperatives); liquidation of the local monopolies and regional food separatism; expansion of agri-industrial integration; improvements in operation of market information services; and a cardinal change in the line of activities of the food corporations by making them a tool for regulation of—not intervention in—the agricultural market. These changes, combined with improvements in the general business environment and reduction of barriers to entry, should increase competition in these markets.

New regulations should be aimed at regulation of agribusiness in ways consistent with the conditions of the market economy. Concrete measures to advance this objective are:

- Setting up a new system for government procurement and sale interventions only under clearly delineated conditions (e.g., emergencies);
- Supporting the development of mechanisms to pledge or provide advance payments to procure farm products;
- Prohibiting the establishment by federal or local governments of ultimate consumer prices or a level for trade mark-ups or indicative coefficients for wholesale/procurement, retail/procurement price ratios.

⁵ A governmental Resolution dated January 27, 2000 (“On measures to regulate grain market by the state”) envisages introduction of a commodity credit mechanism.

Chapter 4: Developing Rural Financial Markets

John Nash and Vera Matusevich

I. EVOLUTION OF THE RURAL CREDIT SYSTEM AND POLICY

Russia's rural financial system is one inherited from the Soviet Union, in which centralized loans were provided to agriculture and agro-industry by administrative decision, mostly from the state budget, with no evaluation of creditworthiness, and minimal expectation of repayment. About 90% of allocated centralized credits were not paid back as of 2000, and as of today, arrears for these credits and interests amount to 21 billion rubles.¹ One of the primary motivations for the Government's use of these subsidies was to reimburse agriculture for losses caused by the disparity in price movements between agricultural inputs and outputs..

Since the start of the transition, rural financial policies have evolved through several stages. Agroprombank was created in 1991 from the 43 regional branches and 1,300 local offices of the agricultural bank of the Soviet Union. It was to serve as a dedicated agricultural lender under the ownership of the state, which controlled 72% of its charter capital. Interest rates were highly subsidized in the Soviet times —1% to 5% for short-term loans and 0.75% to 2% for long-term. Price liberalization in 1992 brought soaring inflation and interest rates, but rates to the agricultural sector were kept at highly subsidized rates. In 1992 the interest rate for individual farmers was 8%-25% and 12-25% for collective enterprises, while the Central Bank rate by the end of 1992 reached 80%. Losses of the Agroprombank were compensated from the federal budget. Inflation and general interest rates continued to increase, but Agroprombank's rates were kept at about the same levels until the end of 1993, by which time the Central Bank rate had risen to 210%.² At that point, the losses became so heavy that they could no longer be sustained, so the subsidy for agricultural credit was abolished and Agroprombank's rate was raised to 213%, which was a level sufficient to cover its cost of funds. Notwithstanding the fact that this very high nominal rate was just barely positive in real terms, producers were unhappy with the system and pressured for a return of subsidized credit.

In 1995, the system of cash loans was replaced by a barter-based "commodity credit" system, another form of centralized regulation of rural credit markets. Under this system, input suppliers, mostly fuel and lubricants producers, provided goods directly to farms during the sowing campaign, but were not paid by the farms. Rather, the farm debts were assumed by the government, and written off against taxes owed to the government by the input suppliers. Farms, in return, were obliged to deliver their just harvested products, mostly grains, to the State for its use (for state reserves, for the army, or for sale). The State was represented by the Federal Food Corporation which handled most of transactions with collected agricultural products. Although

¹ Yanbykh, R., Chapter 9 in the book "Agrarian Reform in Russia: Concepts, Experience, Prospects." Moscow: Publishing House "Encyclopedia of Russian Villages", 2000, p. 310

² Ibid., p. 312

this system survived at the federal level only through 1996, a number of regional administrations still operate under a similar system, and local government-owned food corporations or firms are fully engaged in this business. Farmers are unhappy with this system but cannot break this vicious circle: in spring they need working capital and are forced to sign contracts with unfavorable terms. In the contracts, agricultural input prices are quite unfavorable – 20-30% above the market prices -- because input suppliers (fuel, energy, fertilizers companies) are not chosen by farmers. Farmers are forced to re-pay with their production in the fall, when prices are low. Thus, commodity credit remains one of the barriers to developing progressive forms of marketing. Most arrears to the Federal budget for the 1995-1996 commodity credit currently remain unpaid – about 6 billion rubles. But the negative impact of this system on Russian agriculture is much bigger. In January 2001, the Russian Federation Accounting Chamber stated that the agro-industrial complex suffered damage in the amount of 90 billion rubles as a result of using this “untraditional” form of financing in 1996-1999. Agricultural enterprises received “financing in-kind” instead of real financial allocations, though there was no legal basis for this type of financing. The actual value of input received by agricultural enterprises (as a substitute to real money) was 30% less than the amount of the suppliers’ debts which were written off as a result of this transaction. In addition, agricultural producers bore additional expenditures associated with goods delivery, VAT, commission.

The system at the federal level was changed back to a cash basis in 1997 with the creation of the “Soft Loan Fund,” which was operational through 2000. The Fund provided short-term (one year or less term) credit to primary producers (including individual farmers) and processors at a rate of interest not to exceed 25% of the Central Bank rate. Banks on-lent with a margin of no more than 3%. The Fund was managed by an inter-ministerial committee headed by the Ministry of Agriculture and Food (MOAF). This committee set the amounts to be distributed to each region and participating bank. In its first year, the Fund disbursed loans of 5,647 billion rubles (5.6 billion rubles after redenomination, or US \$947 million) out of a planned 6,822 billion rubles (US \$1.14 billion) through two banks: 72% through Agroprombank, and the rest through Alfa Bank.

In 1997, to make arrangements for the 1998 campaign, participating banks were selected through a tendering process (this mechanism was also used for selection of banks to work in 1999 and 2000). This tender was organized by the Ministry of Finance and the Ministry of Agriculture and Food. Twelve banks were able to meet criteria set for servicing the Soft Loan Fund. Thus, more banks received access to the Federal budget funds in 1998, thereby eliminating the quasi- monopoly of SBS-Agro (created when SBS Bank purchased the remains of the insolvent Agroprombank at the end of 1996) and Alfa Bank. In 1998, loans amounted to 6 billion rubles (re-denominated) (US \$988 million in dollar value as of January 1998, and US \$289 million as of December), of which 44% were disbursed through SBS-Agro Bank. In addition, there was a special line of 163.5 million rubles for private farmers, for a total of 6,122 million rubles.

In 1999, because of the economy-wide crisis in 1998 and failure of many banks, only five banks were selected for participation. In 2000, as a result of the SBS-Agro collapse, only four banks continued this work. Loans worth 4.6 billion rubles were distributed in 1999 (US \$170 million) and 2.3 billion rubles in 2000 (US \$82 million). Repayment rates from the Soft Loan

Fund have been low every year. In 1998, only about a third of the loans were re-paid. By the beginning of 2001 the total amount of Soft Loan Fund reached 8.5 billion rubles; 6 billion rubles of soft loan credits out of this Fund was in arrears. The necessity to change the system of agricultural credit became obvious. In the latter part of 2000, the system was again changed in a fundamental way. The government announced an interest rate subsidy scheme, whereby a borrower would be compensated from the federal budget for up to 20 points of the Central Bank's interest rate. This was operational from September 15 to December 15, 2000 to help finance the harvest operations. Mr. Gordeev, Deputy Prime Minister in charge of agriculture, stated that this mechanism attracted an additional 1.17 billion rubles in soft loans to agriculture, at a cost of only 55 million rubles from the Federal budget. More than 1,000 agricultural borrowers participated in the program; 60 banks from 48 regions provided these credits. The MOA concluded that this experiment was successful, but in the future the number of individual borrowers should be expanded at the expense of food processing enterprises.

Given the fact that during Quarter1 – Quarter 3, 2000 about 1.6 billion rubles of soft loans were provided to agriculture and that the repayment rate was low, the interest rate subsidy mechanism may be a considerable improvement over the previous system. The Federal budget does not assume the repayment risk; the whole risk is assumed by banks, so they must evaluate the risk of the loans. This has the potential to encourage banks to begin to develop their own expertise in agricultural project and risk evaluation, after which they may begin to lend on their own, without subsidy. The amount of credits with subsidized interest rate (1.17 billion rubles during Q4) is relatively higher than in the previous months under the old system. At the same time, this new scheme's implementation remained limited from the point of view of commercial banks and territories involved. About 62% of the total amount of credits were issued by Sberbank, 3.4% - by another State bank – Vneshtorgbank. The remaining 58 commercial banks delivered only 408 credits (1154 – 746) in the amount of 408 million rubles. Among these 58 banks, there are 24 banks that provided just one or two loans. The number of loans varies considerably by oblasts: just four credits each in Leningrad, Orel, and Smolensk oblasts; 10 in Nyzhny Novgorod oblast; 51 in Krasnodar krai; 58 in Stavropol krai; 90 in Rostov oblast; and 108 in Orenburg oblast.

In the Federal budget for 2001, 1.4 billion rubles (about US \$50 million) has been allocated for interest rate subsidies, from which it is planned to leverage 10,000 million rubles in commercial bank lending. The MOA estimates that each budget ruble to subsidize interest rates will be able to generate seven rubles of "owned" funds of commercial banks. On March 7, 2001 the Government issued a resolution on a new agricultural credit scheme. This scheme was developed on the basis of the September – December, 2000 subsidized loans experience. The MOA is in charge of this credit arrangement and will distribute the budget allocation for this subsidy among the regions. Within the limits of the budget allocation, the subsidies are granted to borrowers of any form of ownership. The subsidy amounts to two thirds of the Central Bank's refinancing rate, as of the date of granting the credits, if the borrower repaid the agreed percent on the credit. Banks with tax debts to the Federal or regional budgets are not eligible to participate in the scheme.

In 2000, the government also revived Roselkhozbank as a source of short-to mid-term credit to the sector. Roselkhozbank was constituted from a part of the defunct SBS-Agro bank to

serve as the main channel of providing budget money, including financing of the Soft Loan, Leasing, and Crop Insurance programs in agriculture. The bank started its activity with 24 branches in various regions. As of January 1, 2001 the bank's charter capital was 375 million rubles (with financing provided by the Agency for Credit Organizations Restructuring, or ARKO); by the end of May 2001 the charter capital is expected to reach 2.8 billion rubles, and the number of regional (oblast) branches is expected to reach 60 (with more than 100 branches at raion level). Most of the charter capital increase is from budget allocations: 430 million rubles from additional revenues of the 2000 budget, and 2,000 million rubles from the 2001 budget. In addition, Roselkhozbank is allowed to increase its charter capital by adding soft loan debts collected from debtors in the amount that exceeds Ru 4 billion. In other words, the bank has a plan to recover enterprises' debts in the amount of 4 billion rubles; everything collected above this "plan" goes to the Roselkhozbank charter capital. In the 2002 budget 2,000 million rubles are also planned for the Roselkhozbank.

In 2000, Roselkhozbank provided credits to the sector's enterprises in the amount of 340 million rubles. The bank's profits in 2000 were 3.42 million rubles. According to a new scenario of banking sector development prepared by the Central Bank of Russia, the State will have shares in a smaller number of, but larger sized, banks. Currently, the Government intends to maintain the state status of the following banks: Sberbank (to attract population's deposits); Russian Bank for Development, and Roselkhozbank (to provide credits to productive sectors); Vneshekonombank, Vneshtorgbank, and Roseksimbank (to service foreign trade transactions). Thus, support to Roselkhozbank is envisaged by the Governmental and Central Bank's programs. The Duma is considering both a separate draft Law on Roselkhozbank and relevant changes and additions to the Law on Banks and Banking.

The Ministry of Agriculture plans to give Roselkhozbank a new function. Roselkhozbank is intended to play the role of the principal bank for rural development and a financial channel for all public programs, not only those relating to agriculture. One of the ideas is to conduct deals with arable land through this bank. The government seeks to control all land transactions because of fears by agrarians of possible speculation in land and use of arable land for non-agricultural purposes.

It is a well-known fact that a monopoly rural bank does not promote the creation of a competitive environment. However, those who established it were guided by the following ideas. First, Roselkhozbank, with its country-wide network, would be able to act as a public agent in socially significant spheres of rural development (e.g., rural construction, infrastructure and micro credit system development, land mortgage, etc.), which are not very attractive for commercial banks due to inherent high risks and low profitability. Second, programs involving the receipt and distribution of budget resources (e.g., interest rate subsidization, financial leasing, financial rehabilitation of agricultural enterprises, etc.) could be implemented on a competitive basis, so that potential problems from oligopolistic market conditions could be avoided. Third, the bank could be the 'last resort' for rural entrepreneurs, i.e. play a role similar to that of the Agricultural Development Agency and the cooperative Farm Credit System in the US.

Intentions of the MOA to assign some non-banking functions to Roselkhozbank are understandable, because this bank is seen as a managerial tool in hands of the MOA's officials.

While these new proposed duties may be outwardly in line with market rules, in reality, the detailed functions-- such as land price control and mandatory registration of all land deals (including sales on the secondary market) – are likely to undermine market development. Even if these functions were market-oriented, monopolization of their performance by one State bank is anti-competitive. All interested commercial banks should receive access to this market.

In addition, a major drawback is that Rosselkhozbank combines for-profit commercial activity and functions of a public agent relating to the reception and distribution of budget resources (which is one of the public regulatory functions). Such a combination of functions is not reasonable: it creates conflicts of interest both within Rosselkhozbank and between this bank and the

Besides, there are few if any international examples of efficient specialized agricultural banks. The argument that commercial banks are not willing to work in agriculture became groundless at the end of 2001, when private capital started expressing a strong interest in agrarian projects.

While bank loans have continued since the early 1990s to cover more or less the same fraction of working capital requirements of enterprises, the ability of the enterprises to meet the remainder with their own resources has deteriorated. Credits and loans covered 16.5% of the agricultural enterprises' working capital, as of October 1, 2000 compared to 28.6% as of January 1, 1992, and 26.5% as recently as 1997 (**Table 4.1**). The share of own resources in working capital fell from 66.2% in 1992 to only 1.0% in 2000. Thus, in 2000 the agricultural enterprises' demand in working capital was mostly covered by arrears to suppliers, budget, pension funds, and other off-budget funds. Meanwhile, long-term bank credit is minimal.

Table 4.1: The role of Credits in the Working Capital of Agricultural Enterprises

	As of Jan. 1, 1992 (mln. Ru.)	As of Jan. 1, 1997 (bln. Ru.)	As of Jan. 1, 1998 (bln. Ru.)	As of Oct. 1, 1998 (bln. Ru.)	As of Oct. 1, 2000 (bln. Ru.)
Working capital	133	100	118	143	212
Own sources (own capital, rest of amortization and special funds)					
Amount	88	21.8	8.5	3.7	2.1
% of working capital	66.2	21.8	7.2	2.6	1.0
Bank credits and borrowed funds					
Amount	38	26.5	27.2	28.8	35.1
% of working capital	28.6	26.5	23.1	20.1	16.5

Source: "Economics of Agricultural and Processing Enterprises, no. 5, 1999, p. 21, and Ministry of Agriculture data.

Defects of the System

Commercial banks have been, and remain, reluctant to lend on their own to the agricultural sector. (The results of the March 2001 system of subsidized rate introduction can be analyzed only at the beginning of 2002). Commercial bank loans outside of the Soft Loan Fund were only slightly greater than the soft loan lending. Total credit³ provided to the agriculture sector during 1999 amounted to 10.177 billion rubles, just 0.65% of the total credits issued to productive sectors by all credit organizations in 1999. Of this amount, 4.6 billion rubles were the Soft Loan Fund. In the first half of 2000, total credit to agriculture was 7.743 billion rubles (0.74% of total credits to the productive sectors). While the commercial banks provided significantly more loans than did the Soft Loan Fund, the overall volume was still quite low. Most of these credits to agriculture (74.4%) were provided by Moscow banks.

This reluctance has its roots in some generic and some sector-specific reasons. Among the former reasons have been the huge profitability of investments in the government bond market until 1998, which discouraged banks from lending to the productive sectors in general.

Another generic reason for the lack of commercial credit to agriculture is the virtual collapse of the financial system in 1998 -- and the huge number of banks that became insolvent as a result -- which was disruptive to lending to agriculture and other sectors. Nonetheless, the banking sector remains unstructured. As of October 1, 2000 there were 2,205 registered credit organizations, out of which 883 had recalled licenses, and were non-operational. Out of the operational 1322 credit organizations, only 413 (31.2%) had no financial problems, and 170 (13%) experienced serious financial difficulties. Of the 12 banks involved in lending through the Soft Loan Fund in 1998, only six still exist. Banks' debt to the Federal and regional budgets is growing. In March 2001 the President of the Regional Banks' Association noted the first signs of a new banking crisis, including shift from lending to the real sector to transactions on the state bonds market.

One clear sector-specific reason for commercial banks' reluctance to lend to agriculture was that their competitive position was undercut by the subsidized credit through the Soft Loan Fund. Under the new scheme, partial compensation of the interest rate can be offered to a limited number of borrowers, though if the subsidy element were reduced, the volume of loans could be expanded. The Federal Budget allocations for this purpose are relatively small and most probably will have a downward trend. Thus, commercial lending to the sector is likely to remain low, at least in the short term.

Other sector-specific reasons include the sector's low profitability and perceived high risk. Overdue arrears in agriculture are higher than in other sectors: the share of agricultural arrears in the total agricultural debt was 13.2%, while the share of arrears in the total debt in the economy was only 6.3% (as of January 1, 2000). As of July 2000, these figures had fallen to 6.1%, and 4.0%, respectively. As of January 1, 2000, 12,900 agricultural enterprises (out of the total 27,000) had overdue arrears on various credits and loans, including loans from non-credit organizations. Debt write-offs and restructuring have been standard policies. In 1992-2000 more

³ This does not include commodity credits provided by regional Administrations; the amount of these credits, according to our estimates, is comparable with the amount of soft loans plus commercial loans to the AIC enterprises.

that 35 billion rubles were written off, restructured, or transferred into the internal debt or prolonged (compared with the total financing of agricultural production from the Federal budget of 2000 which was projected at 4.8 billion rubles).⁴ In addition, according to the Government Resolution dated December 27, 2000, 3,415 million rubles (about US \$122 million) of various agricultural debts were written off, though this measure was qualified as assistance to the 50 regions which suffered as a result of weather calamities in 2000.

In 2001, the Government proposed to agricultural producers new terms and conditions for restructuring agricultural debts to the federal budget and extrabudgetary funds (GOR Resolutions Nos. 458 or № 699). Enterprises that would sign restructuring agreements have a good chance to get rid of their old debts within 4 years. According to MOA, as of late November 2001, 17% of all agricultural enterprises signed such agreements. Taking into account that about 20% of agricultural enterprises had no overdue debts at all, it may be stated that it would be possible to lend money to a third of all enterprises next year. At the same time, it is not yet clear whether the framework established by these resolutions will be an effective mechanism for achieving genuine restructuring of these enterprises. Much depends on how the program is implemented in practice (e.g., whether enterprises will be put through bankruptcy if necessary, whether the restructuring will result in farmers being give their own plots instead of land share) and it is too early to form a solid judgment on this.

The risk of agricultural lending is magnified by the inability of farmers to provide acceptable collateral. Mortgage of agricultural land, which is a pillar of rural financial systems in market economies, is prohibited by the Russian Law on Mortgage (1998). This prohibition is in apparent contradiction to the Law on Individual Farms (1990), which specifically allows land to be mortgaged, as well as to some regional laws, and arguably with the Russian Constitution. Its existence creates much uncertainty as to whether land could be repossessed by a creditor, and so strongly discourages banks from lending. The Land Code approved in October 2001 refers the sale, lease and other transactions with agricultural lands to the law on transactions with agricultural lands currently under development. The draft law has been prepared by the MOA and will be reviewed by the GOR Agricultural Policy Council. It deals with agricultural land plots and land shares, including those commonly owned by individuals.

Given these obstacles to commercial bank lending, and the scarcity of credit from other sources (co-ops, warehouse receipts, etc.), it is not surprising that the government had continued (until 2001) to play its traditional role as direct provider (through the Soft Loan Fund). However, the mechanisms used have been costly to the budget for two reasons: the large implicit interest rate subsidies and the high default rates.

Perhaps more important than their budgetary cost, however, is the fact that these mechanisms used in the past were not effective in encouraging commercial banks to increase lending on their own account to the sector; if anything, they had crowded out the private sector. While in principle the banks that made the loans from the Soft Loan Fund were responsible for

⁴ Yanbykh, R., Chapter 9 in the book "Agrarian Reform in Russia: Concepts, Experience, Prospects." Moscow: Publishing House "Encyclopedia of Russian Villages", 2000, p. 318

debt collection, in reality, they were not bearing any risk. In interviews, bank managers clearly indicated that they did not feel ultimately responsibility for collection, though they claimed they did make an attempt, and would have foreclosed on collateral if necessary. However, apart from some factories which can offer machinery (and which as a group have high repayment rates), few borrowers have any collateral which is worth repossessing, so delinquency is rampant and banks acted merely as agents for the state. Thus they had little incentive to develop the kinds of skills in evaluating projects and proposals that they would need to expand their own lending to the sector. The role of the market mechanism in allocating credit to those who could use it most efficiently had been usurped by an allocation mechanism run by an inter-ministerial committee, which decided how much credit should go to each region and each bank, and how much to private individual farmers as a group. On the whole, during the reform period (1992-2000) there were no significant changes in the rural finance policy. Agricultural credit remained state preferential lending in essence.

It is worth noting that bank lending to the sector has been increasing modestly in the recent period. One reason is that some commercial banks are awash in liquidity and are looking for investments in the real sectors. Another is that as banks' experience with agricultural lending accumulates, they are developing better capacity for loan evaluation, administration and collection. The new scheme of subsidized interest rate should contribute to this trend, and it also needs to be encouraged by a supportive policy environment, as described in the recommendations below.

Recommendations

Use of some form of subsidized credit, including credits with subsidized interest rate, may be inevitable at this point, but it should be done in such a way as to attract commercial lending, and with an explicit timetable for phase-out. The efforts should be aimed at mitigating three major factors associated with the commercial banks' reluctance to lend to agricultural enterprises: high risk; lack of adequate collateral; and high transactional costs.

Agriculture will always have significant risk, but some elements of risk in the context of Russia might be reduced by a partial guarantee for commercial loans. But the guarantee should be partial, and reduced over time for subsequent loans to the same borrower, thereby forcing banks to absorb some of the default risk to encourage them to evaluate the borrowers, and eventually to lend to them on their own. For example, for the first loan to a given borrower, the government (or mutual fund) could guarantee repayment of half the loan amount, the second loan a quarter, and for subsequent loans, there would be no guarantee. (A concept of a partial agricultural guarantee fund and all relevant procedures were developed by Nizhny Novgorod banking specialists with the help of the World Bank.) Also, the guarantee should be recognized as a contingent budget liability for the government, and counted against the ceiling on the overall subsidies in the budget.

To encourage credit by input suppliers (including machinery) – particularly, though not exclusively foreign ones – it might be useful to consider a guarantee against sovereign risk, such as the World Bank project provides for investors in the coal and forestry sectors.

Resolution of the problem of collateral deficiency depends partially on events outside the credit market per se. The federal legislation needs to be passed to guarantee the ability of owners or long-term leaseholders of land to mortgage it. Laws on movable property and secured transactions need to be improved, and a good law on warehouse receipts put in place.

The problem of high transaction costs for small loans may be addressed by a subsidy aimed specifically at this problem. The government could consider providing a subsidy per transaction for small loans to individual private farmers and promote the development of rural micro credits via the system of credit cooperatives and noncommercial funds.

The use of the interest rate subsidy instead of the government's direct lending through the Soft Loan Fund is a step in the right direction, since it will leave banks primarily responsible for loan evaluation and recovery, though it is possible that most of the loans will be distributed to high income processing enterprises, like beer and sugar producing, which have easy access to the credit without any privileges.

It is essential that public programs stimulate the development not only of agriculture, but also of nonagricultural entrepreneurship, which becomes an issue of special importance in the light of increasing rural unemployment.

It is expected that in 2002 interest rate subsidies would be also applicable to mid-term (up to 3 years) loans, which would facilitate investment in agribusiness.

On the other hand, the revitalization of Rosselkhozbank could represent a huge step backward, as it could more or less permanently cement the state's role as the dominant provider of credit to the sector and ensure that lending is done on non-economic criteria. This, in turn, would crowd out private lending as the Soft Loan Fund did in the past. The public regulation functions (arrangement for the flow of budgetary funds) within Rosselkhozbank should be legally separated from its commercial activity. If there is no alternative to the public regulation function at the moment, the role of Rosselkhozbank should be minimized, and a period for its phase-out should be announced.

II. LEASING OF MACHINERY AND PEDIGREE CATTLE

Agricultural Machinery Supply -- Status

The machinery park in Russia has declined dramatically over the last decade with extremely negative implications for agricultural productivity. The total number of tractors in agriculture fell from 1,336,000 units in 1990 (10.6 per 1,000 plowed hectares) to 817,000 units (7.4 per 1,000 plowed hectares) in 1999; grain combines, from 408,000 units to 211,000 units; fodder combines, from 121,000 units to 61,000 units; and potato harvesters, from 32,300 units in 1990 to 10,700 units.

Due to the lack of spare and upgradable parts and poor repair service in rural area, only about 50% of all available agricultural machinery is in working condition, and most of this operational machinery is technically obsolete.

There are currently 173 Russian enterprises (200,000 workers) in agricultural machinery construction. In addition, there are 500 enterprises involved in manufacturing and distribution of agricultural equipment and machinery, which are classified to belong to the industries other than agricultural machine-building. Most of this agricultural equipment manufacturing is concentrated at 35 large specialized plants: seven tractor manufacturing facilities, four combine producing factories, and 24 enterprises specializing in manufacturing and assembly of agricultural machinery and equipment for livestock-raising, plant growing, and fodder production sub-sectors. For the period of 1990-1999, manufacturing of tractors was reduced from 214,000 units to 13,100 units; production of grain harvesters reduced from 65,700 units to 1,900 units; fodder harvesters - from 10,100 units to 300 units. Half of the enterprises in this sector operate at loss. The number of workers employed by this sector decreased by 2.5 times⁵ in 1990-1999. At the same time, signs of recovery were seen in 1999-2000 with regard to some producers. For example, Rostselmash is planning to double its output of combine harvesters in 2001 from this year's 2500 to 5000, and 7500 in 2002. Rostselmash produced 850 such combines in 1999.

The reliability and efficiency of domestically manufactured machines is low, for the most part. According to the testing results performed at machine-testing sites of the MOA, 94%-97% of the final output of manufactured agricultural machinery and equipment do not meet manufacturing requirements and standards; 75%-90% do not meet safety requirements; one third fail to comply with specific technical and economical parameters, and approximately 25% do not meet the required performance parameters⁶. Domestic grain harvesters exhibit efficiency levels of .78-.92 (with the average time to break downs of 15-20 hours) whereas the specification standards require an efficiency level of .95, and most foreign equipment meets these criteria.

Leasing — Current Status

Against this backdrop, development of the machinery leasing market is seen by some as the solution to two problems: technological obsolescence of the equipment on the farm, and a resulting fall in crop production; and the collapse of the agricultural machinery manufacturing industry.

Leasing mechanisms in AIC are executed largely through the Federal or regional budgets. The commencement of leasing activity in AIC was initiated with the passage of a resolution of the RF Government as of June 16, 1994. This Resolution ordered an allocation of funds from the Federal budget for this program and outlined the crucial role of "Rosagrosnab" in implementation of this leasing process.

⁵ "Ekonomika sel'skogo khozyaistva Rossii", No. 7, 2000, p. 29

⁶ MOA: Information bulletin, No. 5-6, 2000, p. 42

This essentially revitalized the old system of supplying agricultural machinery and equipment to agricultural enterprises through centralized government credit allocations. Based on allocations to the Leasing Fund, the MOA sets the budget funds (quotas) for the purchase in the form of leasing of agricultural machinery and equipment for each agricultural region. These budget allocations are mainly distributed to oblast agrosnabs. This budget allocation of the leasing funds is similar to the previous centralized distribution system; however, the new leasing funds allocation system is characterized by the direct distribution of monetary capital as opposed to the process of agricultural input distribution to regions. Based on these allocated funds (quotas, based to some extent on the region's gross agricultural production) to each specific region, Rosagrosnab enters into leasing contracts with regional agrosnabs, which perform the functions of lessees in these deals. Regional (oblast) agrosnabs in turn enter into subleasing agreements with agricultural producers. Therefore, contractual lease payments inclusive of the up-front deposit payment, annual payments, and rent (monetary remuneration) for the whole lease period are paid directly to regional agrosnabs. Rent is paid for the provision of maintenance services and other services associated with the servicing of the lease contract. These farms are required to pay in cash 30% (this initial up-front payment was lowered to 20% later on) of the purchase price up-front. The remaining 70% of the purchase price is repaid over a 3-5 year period with straight-line amortization payments (no balloon payment at the end). After a lessee fully pays off the purchasing cost of a particular machinery, he is entitled to assume ownership of this machinery and title to the property is transferred to him. However, many producers do not realize that these leasing contracts allow lessees only the use of the equipment and machinery for the term period, and that they do not assume ownership until the end of the lease. They are therefore not sufficiently motivated to keep current on payments and are not prepared to relinquish the machinery if they cannot make the payments.

Leasing middlemen organizations receive a considerable part of the price at which leasing objects were sold to farmers with a high markup due to a large number of middlemen participating in leasing operations: General Lessor "Rosagrosnab" – oblast / republic Agrosnab – rayon Agrosnab. The MOA's commission conducted a detailed analysis of the operating and financial results of the leasing program after the first year. As a result, the increase in mark-up of prices by middlemen organizations was limited to 12%. However, this limit on the increase in prices is not enforced in practice. Agricultural producers were not able to make their own decisions regarding the specific purchase needs and choose their own manufacturer of agricultural equipment. These crucial purchasing decisions were made by Rosagrosnab. This practice persisted despite the existence of the specific provision in the Civil Code of the Russian Federation (p.p. 665-670), which allows agricultural producers to make their own independent purchasing decision as to what type of equipment to acquire and from which manufacturer. Moreover, the prices on leasing agricultural equipment and machinery were set jointly, on a quarterly basis, by the MOA's committee, Rosagrosnab, and manufacturers of agricultural equipment and machinery.

Lack of own financial resources and lack of competition in the area of agricultural leasing pushed farmers to agree on disadvantageous offers, and there was no financial control on the part of a final consumer. As a result, neither agricultural machine-building plants nor the leasing companies were forced to cut costs or to increase the quality of agricultural machinery.

Leasing companies are seldom willing or able to enforce their contractual rights to repossess. By law, a leased object could be confiscated by a lessor in the event of a breach of terms of a leasing contract including a failure to make contractual lease payments (two payments missed on a consecutive basis) on the part of a lessee. A lessor is entitled to request the full payments of all debt obligations and a leased property subject may be repossessed immediately. Failure to exercise these rights may be partially explained by the lack of legal grounds in the Civic Code of the Russian Federation to provide a lessor the immediate remedy in the form of confiscation of a leased property, as the court must first issue its judgment on a breach of a lease contract. There are also many instances when lessees resorted to actions to prevent physical confiscation of leased property. For instance, in Tyla oblast, local officials blocked the “SBS-Leasing” firm’s attempts to repossess their leased machinery after the oblast machine-servicing station founded by oblast administration had failed to make contractual lease payments for the German “Dominor” combines acquired through international leasing arrangements in 1998⁷.

New equipment leasing companies are represented by: (a) companies affiliated with banks (“SBS-Leasing,” “Agroinkom”); (b) leasing companies established to support foreign TA projects (for example, in Kolomna); (c) recent commercial vertically integrated initiatives (Cebeco, Campina, Nutricia). Recently, Russian John Deere Finance (an affiliate of the US corporation Deere & Co) has received a license to conduct leasing operations in Russia.

The Government has prepared a number of actions to change the old system. GOR Resolution No. 404, dated May 22, 2001, transferred the functions of the public agent for leasing development in the agro-industrial complex to OAO Rosagroleasing, which has been formally divested from Rosselkhozbank. The 2001 federal budget allocations for financial leasing of machinery and pedigree cattle for the agro-industrial complex (about 5 billion rubles, including additional revenues) will be used to increase the authorized capital of OAO Rosagroleasing. It is expected that Rosagroleasing as a lead entity would sign agreements with regional leasing companies (sublessors), which, in their turn, would provide machinery to agricultural producers and other agribusiness enterprises under leasing arrangements. The new scheme differs from the old one in a few essential aspects: first, public leasing becomes a paid service. Lessees would pay interest to the lessor in the amount of 1/3 of the Central Bank rate, i.e. the State will partially subsidize the interest rate, as with seasonal loans. Second, the margin imposed by the lessor and sublessor will be limited to 1.5% each (3% altogether), i.e. the service charge decreases significantly. Taking into account that the loan is not free, the total leasing rate would exceed the rate under the old scheme, however, the budget will receive funds through Rosagroleasing rather than intermediaries. Third, disbursement of federal funds to the regions will be linked to the amount of resources allocated by the regional budget rather than to ‘norms’ (plowed hectares or number of farms in the region). Leasing will be financed on the 50:50 basis: each regional ruble will be matched by ruble from the federal budget. Fourth, any private regional leasing company (and not only former Rosagrosnab offices) will be able to participate in the scheme as a sublessor. Another characteristic of the new scheme is that combines and tractors to be leased will be mostly of domestic make, which would allow the Government to focus on grain market development, also supported by other measures (in particular, seasonal interventions in the grain).

⁷ “Izvestia,” September 4, 2000

The Government believes that this new system facilitates the development of private leasing without abrogating the State's paternalistic responsibilities, and that the new system is more consistent with market conditions established in agribusiness over the last years. In the view of the Bank team, the new leasing arrangements indeed have some advantages over the previous scheme, among them more private sector participation and competition at the regional level; and cost-sharing with the regions, rather than allocations according to the old norms. However, as Rosagroleasing would be acting as a leasing agent itself as well as the program's administrator, there is an inherent danger of a conflict of interest. There is the possibility that one monopoly provider of leasing services for agriculture (Rosagrosnab) would be replaced by another (Rosagroleasing).

Financing of Leasing

The federal government is the largest source of funding for leasing transactions, through the mechanism described above. However, regional budgets and private investment also comprise significant contributions (**Table 4.2**). It should be noted, however, that some of the regional funding comes indirectly from the federal budget.

Table 4.2: Investment Funds for Leasing (1999)

Funds	Amount	% of total
Private Investments		
(inclusive of foreign direct investments)	- 1,831 million rubles	(32%)
Funds from Regional budgets	- 1,603 million rubles	(28%)
Funds of the Federal Budget	- 2,280 million rubles	(40%)
Total	- 5,714 million rubles	(100%)

Source: MOA survey

The federal allocation of budget to the leasing fund has been declining significantly over time in real terms, though the ratio of allocated to budgeted funds has been increasing. As **Table 4.3** also shows clearly, Rosagrosnab is virtually the sole recipient of funding from the Leasing fund. Since 1998 there have been no auctions conducted to secure the access to the budget-allocated leasing funds.

Table 4.3: Allocation of the Federal Budget Proceeds to the Federal Leasing Fund in 1994 – 2001 (as of September 9, 2001), million rubles

	1994	1995	1996	1997	1998	1999	2000	2001	Total
Approved in the budget	1000.0	1351.0	2700.0	2400.0	2000.0	2280.0	2575****	5000	19306
Actually allocated, total	1053.6*	1080.6**	1928.9	736.6	1007.0	2280.0***	2575****	500	11161.7
Disbursed, %, including:	105	80	71	31	50	100	100	10	58
machinery leasing	1053.6	1065.6	1828.9	712.6	971.0	2200.0	2475	500	10806.7
pedigree cattle leasing,	0.0	15.0	100.0	24.0	36.0	80.0	100		355.0
including:									207.0
Rosplemob'edinenie	0.0	15.0	100.0	17.0	11.0	29.0	35		148.0
Agroplemsoyuz	0.0	0.0	0.0	7.0	25.0	51.0	65		

* including 850 million rubles under GOR Resolution No. 686, dated June 16, 1994

** including 351 million rubles from the repayment of allocations.

*** including 1,655 million rubles allocated for agricultural purposes from additional federal budget revenues.

**** including 1,500 million rubles for procurement of equipment and machinery in Belarus; 25 million rubles for procurement of pedigree cattle; and 550 million rubles for repayment of the credit for the purchase of combines for the Saratov Oblast, using additional federal budget revenues.

Note: in addition, 49.27 million rubles were allocated for leasing in 2001 under the 2000 Budget Law, as balances on companies as of January 1 2000.

Approximately half of the lessees do not meet their obligations. Thus, debts to the Leasing Fund continually accumulate, and reached 1.76 billion rubles in 2000 (**Table 4.4**).

Table 4.4: Repayment to the Federal Leasing Fund in 1994 – 2000, million Rubles (as of October 16, 2000)

Year	Planned repayment for each year	Previous year (years) debt	Planned repayment plus debts [2+3]	Actual repayment during the year	Actual repayment as a percentage of planned repayment [5:2]	Actual repayment as a percentage of planned repayment plus debts, [5:4]
1	2	3	4	5	6	7
1994	123.9	-	123.9	56.3	45.4	45.4
1995	255.0	67.7	322.7	150.3	58.9	46.6
1996	205.3	172.4	377.7	195.3	95.1	51.7
1997	485.0	182.4	667.4	340.6	70.2	51.0
1998	226.0	326.8	552.8	271.7	120.2	49.1
1999	1488.0	281.1	1769.1	611.7	41.1	34.6
2000	1760.1	1157.4	2917.5	1175.8	66.8	40.3
Total	4543.3	1741.6	-	2801.7	-	-

Budget allocations to assist agricultural producers to purchase agricultural machinery and breeding cattle increased considerably in 2001. The basic Federal budget envisages 3 billion rubles to finance these purchases. Besides, 2.5 billion rubles are allocated for this purpose from the additional revenues of the 2000 budget, and 1.5 billion rubles to finance agricultural machinery from Belarus. Thus, the total expenditures of the Federal budget with regard to agricultural leasing reached around 7 billion rubles. There was considerable discussion of how to administer the funds for 2001, and some proposals would have created a more competitive market-oriented system by letting any private leasing company bid for the subsidized funds. In the end, however, it was unfortunately decided to channel all of the money through Rosagroleasing, a subsidiary of Roselkhozbank, a decision strongly opposed by the private leasing companies.

Recommendations for the Federal Government

Refrain from representing any of the parties involved in conducting lease contract arrangements either in the form of providing government guaranties to foreign suppliers and manufacturers of agricultural machinery and equipment or lease transactions involving livestock, unless such guaranties are partial and with a specific phase-out period (as described in the “Recommendations” sub-section of section I of this chapter). This type of lease contract arrangements represents commercial (private) financing, which should be conducted solely by private corporations and individuals. At the same time, the government (possibly with the World Bank or other donor) may extend guaranties against sovereign (political) risks to attract investors.

Refrain from administrative distribution of leasing resources (allocation of leasing quotas to regions; identification of sub-lessors by regional administrations). A straightforward subsidy (preferably on the purchase price, rather than the interest rate) available to any who are willing to put up the remainder of the necessary funding is a better and more market-oriented way to distribute the resources. The subsidy would allow farmers to vote directly with their rubles on what kind of machinery they wish to use, and on what terms. Subsidized funds should not be channeled to a single company, as they are now through Rosagroleasing. In our view, it is not reasonable to transfer leasing repayment funds to the authorized capital of Rosagroleasing (or any other monopoly structure) since it would initially create unequal conditions for leasing market operation.

One of the possible ways to terminate the monopoly of one or several companies in the leasing market is to provide potential local and government budget financing to many lessors and all types of leasing activity, thereby promoting competition and assisting agricultural machinery producers to participate in so-called vendor leasing.

Encourage phase-out of barter as a form of lease payment by making these exchanges more transparent and therefore less useful as a tax evasion devices. This might be achieved through better transparency of the leasing companies' financial statements and standardization of financial information permitting easy assessment of a company's financial condition. To prevent conversion into *quasi* trading companies, and to reduce expenditures, lessors should outsource barter to specialized trading companies or food producers.

Foster the creation of the secondary market for agro machines and equipment. Leasing companies need a developed after-market pipeline for returned and repossessed equipment. A system of price information and a system of equipment service and repair should be developed. Revise the "Law On Leasing" especially in relation to employment of the budget funds, confiscation of leased properties, and recovery of leasing payments.

Adopt a neutral policy position with respect to imported machinery. Domestic machinery is, in general, significantly less efficient, but also much cheaper, than imported. Russian farmers should not be denied the technological benefits of the latter, nor penalized (by high import tariffs) for choosing it. But neither should international firms be given privileged treatment in deals with the government. Creation of a level playing field for both will allow each farmer to make the decisions appropriate for himself, taking into account his own cost versus the efficiency tradeoff.

Recommendations for Leasing Firms

Diversify activities not only into financing leasing but also into sale-leaseback transactions, or "return leasing" (when an entity is a lessor and a lessee at the same time) and operating leasing (this type of leasing does not transfer ownership of a leased property), in particular developing custom harvesting, which involves short-term leasing.

Enhance the level of additional services prior to, and after, the expiration of a warranty period and provide more flexible subleasing services.

III. WAREHOUSE RECEIPTS SYSTEM

Warehouse receipts (WHRs) are tradable instruments which use as their collateral (security) stored commodities. They are widely used in developed market economies, and provide liquidity for producers, traders, and processors of non-perishable commodities. WHR systems are developing in several Central and Eastern European countries as well, though more slowly than anticipated.

A recent study⁸ evaluating the potential for a WHR system in Russia found that around 20 million tons of existing storage space in Russia would be suitable for issuance of WHRs, indicating a potential collateral value of \$2 billion. If realized, this would increase liquidity by approximately as much as the largest federal credit program. Clearly, a well-functioning WHR system could make a substantial contribution to alleviating the credit constraints of the sector. Recent developments are positive, though there are still a number of obstacles that need to be overcome to set the stage for widespread use of WHRs. Some of these are associated with general problems in grain marketing and channels (**Chapter 1**) and credit markets, and some others with issues specific to this market.

Current Status

While WHRs as liquid, tradable instruments are not used in Russia, “quasi WHRs” are widely used to collateralize inventories in a number of different types of transactions. They are commonly used in pre-export transactions for grains and oilseeds, and for pre-import transactions for standard processed commodities (meat products, milk powder, tobacco, vegetable oil, beverages) and to a lesser extent grains. These typically involve some form of warehouse inspection (by an international inspector, such as SGS, or the collateral department of the bank), issuance to the bank of a quasi-WHR by the inspector (who assumes responsibility for loss or spoilage), insurance against non-sovereign risks, and eventual cancellation of the WHR when the commodity is transferred and the credit re-paid. One result of the 1998 crisis and devaluation was a large depreciation of the capital value of commodity stocks, and consequently large losses for participants in these schemes. This virtually froze the programs temporarily, but in 1999/2000, many are re-emerging. One positive characteristic of the emerging schemes is that there is greater participation than before by Russian banks, as a result of their need for greater lending to the productive sectors as the government bond market has become less lucrative.

In domestic agribusiness transactions also, stored commodities are commonly used as collateral. One USAID pilot scheme implemented by Cargill employed fairly sophisticated procedures, and tested several variants of a system of credits collateralized by stored

⁸ D. Rylko, S. Matthies, B. Zimble, E. Zharikova; “Using Warehouse Receipts as a Financing Instrument for the Russian Agribusiness Sector”, Moscow 2000: EBRD, FAO, USAID.

commodities. While participation in the scheme was high in its second year, it foundered because of the 1998 crisis and because lack of suitable legislation made its legal status unclear. Other pilot schemes are under way or being prepared by the Common Fund for Commodities and USDA.

Most of the domestic users of credit agreements collateralized by stored commodities are less sophisticated in that they do not use warehouse inspectors nor require bonding for the warehouses. Banks typically use their own inspectors from their collateral departments to physically inspect the warehouse, and in the case of delinquency of the loan, may post a security guard at the warehouse to protect against disappearance of the pledged commodity. Banks may also require posting of personal property as security in addition to the stored commodity. Especially before the 1998 crisis, banks required extremely high collateral, unless the loans were backed by government guarantee. Often loans were based on personal and political relationships. Most of these transactions were based on the warehouse acceptance receipt (form 13) inherited from Soviet times, which is not endorsable, and is subject to manipulation or fraud. These high-cost and non-transparent practices were not conducive to the evolution of a market in secured transactions. Nonetheless, the fact that these collateralized loans are relatively widespread, notwithstanding the market imperfections, indicates a large potential market for WHRs.

Policy Issues

Policies affecting the development of WHR system are of two main types: general grain market policies, and the legislative and regulatory framework for the WHR system *per se*. Regarding the first class of policies, the government's direct intervention in the grain market via procurement has been declining each year, and in 1999 reached an all-time low of 18%. The Federal Agency for Regulation of Agricultural and Food Markets in principle is an intervention agency, but has not been very active for lack of budget. There are however, proposals from the Ministry of Agriculture to revive large-scale procurement by the federal government, and in particular to stabilize the market to reduce seasonal and inter-harvest price fluctuations. The government has also attempted to manipulate prices and availability of commodities on the domestic market by trade policy (e.g., introduction of a 10% export tax on sunflower seeds in early 1999; constantly shifting sugar import regulations). Reportedly, the unpredictability of VAT rebates for exports also contributes to the uncertainty surrounding grain and oilseed markets.

On the oblast level, the situation is worse. Although it is illegal under federal law, oblast governments (and recently even some rayon level governments) commonly obstruct the export of foodstuffs, especially grains and oilseeds. In the marketing year 1999/2000, reportedly 27 out of 89 regions imposed some administrative restrictions on outflows. These must be done in such a way that they cannot be overturned by the federal government, so the mechanisms are fast and temporary (so the federal government cannot act before they have the intended effect), indirect (strict registration or phytosanitary requirements), or informal (instructions to local police or train station managers to stop grain transit). They are also often imposed in connection with the regional commodity credit deals; for example, there is a ban on exporting until the commodity credits are paid off. While these do not seem to be regarded by the trade as insuperable obstacles

to doing business, they are clearly a hindrance to market price formation. Mr. Putin has stated that he will overturn such regional initiatives, and has done so in at least one case (Voronezh region). Regional governments also commonly resort to price or markup controls on food products.

Finally, Russian grain markets have been influenced by large shipments of food aid (**Chapter 2**). Among other deleterious effects on the market, this has increased supply and thereby lowered prices, to the detriment of producers and holders of stocks. Also, as a condition for the aid, the government was required to impose export bans, which prevented traders from exploiting niche foreign markets. The last such ban on milling wheat export just expired on September 30, 2000.

Such government policies reduce the viability of a WHR system in two ways. First, to the extent that they are successful in reducing price fluctuations, they reduce the demand for storage. Persons store a commodity in the expectation that its price will rise sufficiently to cover the costs of storage, including the implicit costs of financing it.⁹ Of course, there would be, in any case, some demand for storage while commodities are in shipment, short-term storage by processors, etc. But the less prices are expected to rise, the lower the demand for storage. Second, increased uncertainty associated with interventions makes investments in storage (investments in both storage facilities and stocks) riskier and so discourages them. The timing, magnitude, and pricing of government purchases and sales seldom are determined on transparent and predictable criteria, but rather respond to short-term political considerations. The same can be said of trade policy measures. Thus, they often end up undercutting private sector investors.

There are a number of shortcomings in the legislative and regulatory framework for a WHR system, though it appears that progress may be made soon. In principle, pledges of inventory have always been possible under the first part of the Russian Civil Code, since its adoption in 1995, and in fact the Form 13 (warehouse acceptance receipt) has functioned as the basis for the collateral instruments (quasi WHRs) discussed above, governed by the Civil Code. The Law on Grain, adopted in 1993, refers to establishment of a grain pledge system. Part Two of the Civil Code, adopted in 1996 goes further in setting up a legal framework that could be used for WHRs, though it was apparently not written with WHRs in mind, as they are used in agribusiness. It defines three types of documents that may be issued against goods stored in a warehouse, and provides that two of them (simple and double warehouse certificates) are “securities,” and therefore governed by the provisions of the Civil Code on securities. These provisions specify that securities may be bearer instruments, which can be transferred, and thereby provide a legal foundation for a WHR system. However, enforcement of pledges under Russian Law is time-consuming and cumbersome, involving court proceedings and a public auction. Furthermore, since these Civil Code provisions were not specific to WHRs, there are several areas which are not ideal for this purpose. All of these factors together may explain why a system of WHRs has not evolved based on the Civil Code.

⁹ Every ruble invested in grain in a warehouse is a ruble which could otherwise be put in a bank to earn interest, or in another investment. To make it economically attractive to store the grain for later sale, the storer must expect that its price will rise by more than enough to cover his out-of-pocket storage charges, plus the interest that he could be earning on these alternative uses of his money. Otherwise, he would just sell it immediately, rather than storing it.

Recommendations

A draft WHR law (already approved by the State Duma in April 2001, but then rejected by the Upper House in May 2001), is again being considered by the Duma. It would expand upon the provisions of the Civil Code, and should make the legislative framework more conducive to development of a WHR system for agribusiness. The EBRD/FAO/USAID study (Rylko, et. al.) identifies three key areas in which the law should improve upon the existing framework. First, it should allow for easier foreclosure without court intervention, if the parties agree to this in advance. Second, it should make clear that only licensed public warehouses (subject to minimum standards of financial health and physical facilities) should issue WHRs, while other should not be subject to licensing at all. This will help to avoid a problem which has arisen in Bulgaria, where all warehouses are required to be licensed by the grain agency. Storers believe that since all warehouses are licensed, they all have the same level of security; they are therefore reluctant to pay the higher fees needed by the licensed public warehouses, which in reality do offer a greater level of service and safety. This has interfered with the development of the system there. Third, licensed public warehouses should be able to issue WHRs for the goods that they both own and store in their own facilities, which is a standard practice in other countries for food processors which own warehouses. The study also suggests that the law clarify the status of WHRs with respect to the value added tax (VAT) by stating clearly that each trade of the receipt does not constitute taxable event.

IV. CREDIT COOPERATIVES

In advanced market economies, the process of credit cooperative system development in each country began by setting up a network of primary (grass-root level) organizations, based on individual membership with the objective of addressing local needs. Their growth led to the formation of regional credit institutions that served the credit and financial requirements of primary member cooperatives. Further evolution entailed the establishment of national credit cooperative institutions, including large banks. Although initially created as institutions to provide credit to farmers and functioning for many decades as such, gradually the rural credit cooperatives lost their agrarian focus and transformed (in terms of their membership and transaction types) into multi-purpose credit institutions, servicing enterprises of agribusiness and in some cases other sectors not only in their own countries, but also abroad.

In the 1990s, there has been a recovery of cooperative credit institutions in transition economies in Eastern and Central Europe and the CIS states. This process is still at the initial development stages and its distinctive feature is an active involvement (and in many cases the initiation) of international governmental and non-governmental organizations.

In 1999, there were registered over 300 credit cooperatives of various types in Russia, according to Goskomstat. Many of these were originally set up as consumer mutual aid funds (credit unions) in urban areas, though some have since expanded into rural areas, and some were rural to begin with. But in most cases they remain focused on consumer loans. But according to unofficial data, by the end of 1999, there were about 60 rural credit coops operating in 20

regions, compared to only 17 in six regions as recently as 1997. Since August 1997, these have been organized in an inter-regional Union of Rural Credit Cooperatives (URCC).

At present, the URCC includes 120 member cooperatives from 32 regions, with a total number of shareholders over 7,000. Credit cooperatives have established in Volgograd, Saratov, Rostov, Tomsk, Leningrad, Perm, Vologda, Yaroslavl, Moscow, Kaluga, Tula, Smolensk, Nizhny Novgorod, Ulianovsk, Orenburg, Penza, Pskov, Novgorod, Orel, Voronezh, Chita, Sverdlovsk, and Chelyabinsk Oblasts, Marii El, Udmurt, and Chuvash Republics, Krasnoyarsk Krai, Khakass, North Oset, Dagestan, Tatarstan, and Altai Republics.

Credit cooperatives are developing most intensively in Volgograd. They account for 48% of all credit cooperatives, 51% of registered cooperative members, and 64% of the total amount of loans (see **Table 4.5**).

Table 4.5. Development of Activity of Rural Credit Cooperatives in Volgograd

	1996	1997	1998	1999	2000	First 6 months in 2001
Number of RCCs	6	7	19	26	31	37
Number of RCC shareholders	102	369	701	1602	4007	5313
Number of extended loans, a year	38	349	626	1831	3775	2271
Amount of extended loans, thousand rubles	317	2222	5585	15173	54234	53295
Amount of savings contributions, thousand rubles	350	2769	4510	8165	14101	14213
Amount of funds raised by RCCs, thousand rubles a year (except savings contributions)	-	-	100	3387	29388	30459

At the initial stage, a credit cooperative forms its funds by contributions from the shareholders. Later, sustainable cooperatives can mobilize external funds such as commercial bank loans, donor grants and credits, and private savings of households. In some cases, the local branches are deposit-taking and lending institutions, while the regional organization with which they are associated attempts to attract external resources. Credit coops in Volgograd oblast are organized in this way, and a similar system is being set up in Saratov.

The Russian-American Rural Credit Cooperation Support Program has been the largest sponsor of rural credit coops, and its funds were used to establish the Rural Credit Cooperation Development Fund (RCCDF). The RCCDF has accredited 34 rural credit coops for participation in the Program. Since the Program was launched, it has provided financial support (loans) in excess of 117 million rubles to 32 coops in 14 Russia regions. Individual private farms account for 70% of the Program beneficiaries.

Unfortunately, the Government has not yet made a decision to channel resources designed for subsidizing the interest rates of commercial credits to agricultural producers via credit coops.

Out of the total amount of credits given by cooperatives in 1998 the share of agricultural (commercial) producers averaged 56% (in Volgograd Oblast – 77%). The most common loans

are short-term for up to three months. These constitute 74% of the total number and 73% of the total loan amounts. As for the loans of up to six months, those indicators were 19% and 18% correspondingly. The annual interest rate for loans given by cooperatives in 1998 averaged 33%. The timely loan repayment coefficient was close to 97% (in 1997 – 99%).

According to a 1999 survey of 15 rural credit cooperatives in seven oblasts, most are quite recent, with 79% starting operations only in 1998 and 1999. The number of members of these coops ranged from seven to 222, with an average of 63. On average, 32% of the members are legal entities with variations in some cooperatives from 10% to 100%. It is a common pattern for rural credit cooperatives that legal entities (usually, private farms) prevail among their organizers (founders). But gradually, if the cooperative is successful, it becomes attractive for wider rural population (mainly, owners of individual holdings and garden plots), and its membership composition shifts to the domination of natural persons.

As a cooperative expands its membership, it often covers local businesses, sometimes including those that are only indirectly related to agricultural production (processing, trade, marketing, servicing and other enterprises and institutions). In the largest (and oldest) cooperatives, agricultural producers accounted for just 45% of their membership. Five of the surveyed cooperatives were involved in both lending and saving activities, and three only undertook lending.

The average size of the share cooperative capital is 41,000 rubles, with the range in variation from 7,000 to 75,000 rubles. The average cooperative assets size (the most representative credit potential indicator) is 187,000 rubles, with variations from 10,000 to 569,000 rubles.

Overall, in 1998 there were 40 loans on average per cooperative. The average size of loan per cooperative was 462,000 rubles (range of 10,000 to 1,741,000 rubles). The average size of a loan slightly exceeded 11,500 rubles, ranging from 1,000 to 53,600 rubles.

The loans were lent at annual interest rates of 30% to 72%. In all cooperatives the timely loan repayment rate approached 100%.

Impediments to Coop Development

The adoption of the Law on Credit Consumer Cooperatives of Citizens (August 7, 2001) put an end to a long period of nonrecognition of credits coops as a special type of lending institutions. However, there are a number of pending issues. First, the membership of legal entities in a credit coop is still an open question. Second, there is no licensing system for credit coops, or a public authority responsible for licensing and supervision. This new Law is only a framework law and does not cover many important issues relating to the operation of credit coops.

While some oblasts, including Volgograd, have passed regional laws, at any time these could be revoked or over-ridden by new federal laws or regulations. The regional affiliates of the

Central Bank, taxation and other federal bodies and agencies can alter their attitude to the development of the rural credit cooperation system. In particular, the taxation status of rural credit cooperatives is dependent on the attitude and the level of understanding of local (rayon) tax authorities, since rural credit cooperatives are not entirely legitimate and have an uncertain industry classification. For example, according to the Volgograd oblast law they are non-profit credit institutions, while there is no such notion in the federal legislation. In some cases they are subject to the profit tax similar to banking institutions, while in other rayons they pay the VAT.

Another problem is that these institutions are not well integrated in the overall financial system. As a result, one of their important challenges is the allocation of credit resources of rural credit cooperatives in the so-called “dead season.” The highest demand on credits is in the spring, summer and autumn. In winter the existing rural credit cooperative resources are actually not used, while in the high seasons, the demand outstrips the available credit. Since they cannot easily borrow from nor lend to other financial institutions, this seasonality is a significant problem.

Recommendations

Though the Government approved the Law on Credit Consumer Cooperatives of Citizens it is already necessary to make a number of amendments to the Law. The Law should:

- not impose rigid limitations on membership of citizens (natural persons) and legal entities of small scale business and limitations on the target use of credit;
- allow co-ops to be set up and developed from the simplest forms of cooperation to the more complex ones, in particular, cooperative banks providing their members with a comprehensive range of banking services; and,
- bring these co-ops under the supervision of the normal bank regulatory authorities when they assume banking functions, while allowing licensing and supervisory authorities to establish special standards and regulations for credit cooperatives that recognize that their status is different from normal banks.

It is also necessary to amend the banking legislation to include credit coops that are functioning as consumer coops in the national financial and lending system. In addition, the Government might consider the establishment of a guarantee fund financed by public resources that would ensure access to funds for credit coops, which have no adequate collateral. It would also be worth considering including credit coops in the list of lending institutions eligible for participation in the government program of subsidized credits so that they could receive reimbursement for $2/3$ of the interest rate.

V. AGRICULTURAL INSURANCE

From 1969-1990, property insurance against catastrophic damages was mandatory in the Soviet Union,¹⁰ and premiums were subsidized by around 57% from the federal budget. An estimated 90% of the claims paid out under this coverage were for crop damages. Crop shortfalls were fully compensated, with the shortfalls calculated based on the average of the preceding five years. From the period 1968 to 1990 premiums of kolkhozes and sovkhozes amounted to 426 billion rubles, and insurance payouts accounted for 385 billion rubles¹¹. Therefore, Gosstrakh (a department of the USSR Ministry of Finance) was able to operate at a profit at that time and did not require agricultural producers to hedge their risks.

In 1990, the insurance became voluntary, the budget subsidy was virtually removed, and insurance companies increased premiums by 40% to 80%. As a result, many agricultural producers abstained from purchasing coverage.

In 1993 the GOR revitalized a state-sponsored agricultural insurance. The budget subsidy was planned to be 50%. However, the federal budget funds of the premiums were not sufficient to provide subsidies to the required level of 50%. Beginning in 1999, compensation for insurance premiums was fixed at the level of 25%. However, the actual level of subsidies was at an even lower level. As a result, only 5% -11% of all agricultural producers had coverage under crop insurance policies in 1993-1998. The situation changed somewhat after the Russian government introduced Resolution no. 1399 "On State Regulation of Insurance in the area of agro-industrial production" (November 27, 1998). This Resolution once again reintroduced a 50% subsidy from the federal budget. In 2000, 80 million rubles were allocated in the form of budget subsidies towards agricultural insurance policies. In the 2001 budget these compensations are increased to 230 million rubles (2.9 times). Currently it is estimated that only about 10% of the total crop production is covered under crop insurance policies. Crop insurance policies are issued by 16 insurance companies in 23 regions. Rosgosstrakh, formerly known as Gosstrakh, and its branches are engaged in providing this type of coverage on a small scale. Rosgosstrakh is the only insurance company in Russia with 100% state capital. In 2001, the MOF announced that it is to be privatized.

Given the sparse coverage, shortfalls in crop production due to natural disasters are seldom compensated from formal insurance policies. Rather, such shortfalls produce political pressure for compensation from the budget on an ad hoc basis as "disaster payments" or more commonly as debt write-offs. To assist agricultural enterprises suffering from drought and other calamities in 1999, 3.5 billion rubles of various debts were written off according to the governmental ordinance dated November 29, 1999. That kind of write-off was recurrent phenomenon in the period from 1991 to 1999, and in December 2000, the Duma allocated 3.4 billion rubles to compensate catastrophic losses in agriculture.

On November 1, 2001, the Government issued Resolution # 758 on Public Insurance Support of Agribusiness, which approves the 2001 rules for federal budget subsidy allocation for

¹⁰ In 1968 mandatory property insurance was introduced in Kolkholes (crops, perennial planting, cattle, and fixed assets). In 1979 this practice was applied to sovkhozes also.

¹¹ V. Semenov, M. Kazakov. "On Insurance of Agricultural Producers," *Journal of Economics of Agricultural and Processing Enterprises*, no. 2, 2000.

partial compensation of crop insurance costs incurred by agricultural producers. The subsidies shall be provided to agricultural commodity producers (legal entities, individual farmers) to finance 50% of premiums under insurance agreements with insurance companies. It is voluntary insurance. A Federal Agency for Public Insurance Support of Agribusiness (the Agency) has been established to implement such public policy. The Agency would regulate premiums charged by insurance companies and would collect from each company some of its excess operating surplus each year (premiums collected minus payouts) and place this into a reserve fund to cover excess losses. In addition, 5% of these premiums from crop insurance would be required to be allocated towards the federal Agricultural Insurance Reserve to cover catastrophic losses. In addition, there would be a mandatory re-insurance. Purchase of the crop insurance by producers would be voluntary, and would be subsidized by 50% from the federal budget. A policy would be designed to cover 70% of all crop shortfalls. The value of crop shortfall would be calculated on the basis of grain yield indicators for five previous years. A system of regional insurance companies would be established.

There is some justification for subsidizing premiums of crop insurance if this would allow the government to resist calls for ad hoc disaster relief. Moreover, agricultural insurance makes the sector more attractive for creditors by decreasing their exposure to financial risks. However, there are good reasons to try to ensure that agricultural insurance is well integrated into the whole insurance system, rather than relying on the creation of a specialized system. The fundamental principle of insurance is the pooling of risks and diversification. The more diversified an insurer's portfolio, the less likely it is that an event will require payouts of a magnitude that would cause it to have liquidity problems. Thus, insurers should ideally be diversified by holding a large number of policies in different regions and even of different types of insurance. Of course, re-insurance or build-up of a reserve fund are other ways of coping with the possibility of liquidity problems from an event, but these mechanisms are costly, and are less necessary the more diversified individual companies' portfolios are.

It is quite important also to establish the system using a sound basis for paying claims. One of the greatest problems with crop insurance schemes in many countries, including that in the US, is that claims are paid to each farmer based on his individual losses. Under this approach, farmers who have larger losses receive larger compensation. This is the wrong approach, since it encourages farmers to take less care than is appropriate to minimize damages (by, for example, adopting farming techniques or making investments to conserve water in drought years or planting drought-resistant crops). This is the classic insurance problem known in the industry as a "moral hazard." In order to avoid this problem, the best practice in crop insurance is to base claims payments on some objectively verifiable measure of an event that is associated with the damages, or on some other indicator over which the individual farmer has no control. Payments could, for example, be based on measured hail or on the rainfall deficit – the difference between the actual rainfall in a given season and some minimal level of adequate rainfall needed to avoid catastrophic crop failure. Each farmer in the relevant area would be given the same payment per hectare for each millimeter of rainfall deficit. Or the payment per hectare to each farmer in a fairly large area could be based on the "yield deficit" of the entire area. This would not discourage farmers from making investments to minimize losses. The World Bank is providing technical assistance to set up crop insurance schemes organized in this way in several countries.

In other countries, the World Bank is supporting best practice insurance programs with the use of contingent risk funds, which re-insure part of the risk that national insurance funds face.

Recommendations

Firmly link any insurance subsidy scheme to a commitment not to continue ad hoc disaster relief for either insured or non-insured parties. If potential purchasers believe that these bailouts will continue, this will undermine the market for the insurance.

Avoid the creation of new specialized structures that would tend to isolate crop insurers from the rest of the insurance industry; instead create a simple apparatus to administer the subsidy. As a non-commercial entity, this apparatus cannot be financed from the agricultural premiums.

Offer subsidies for insurance only when based on sound principles to minimize moral hazard, as described above.

Avoid the creation of the Federal Agricultural Insurance Reserve (by collecting 5% of the total of agricultural premiums) to supply insurance companies with funding for further support to agricultural producers during times of calamity. If this reserve is needed it should be created by insurance companies based on market mechanisms. Otherwise, this mandatory 5% payment appears to be an additional tax which is in direct conflict with the tax law.

The legal framework of agricultural insurance should be fully consistent with the Civil Code and general provisions of the insurance and tax legislation. Therefore, it is necessary to cancel mandatory participation in the insurance schemes (including insurance against natural disasters), mandatory funding of the Federal Agency for Public Insurance Support of Agribusiness, and mandatory partial transfer of premiums to the Federal Agricultural Insurance Reserve Fund.

Chapter 5 : Changes in Rural Life: The Need for an Effective Rural Development Strategy

Csaba Csaki and Vera Matusevich

Collectivization and the long period of socialism in Russia completely transformed rural life and rural livelihoods. During this time large-scale farms came to incorporate all aspects of rural life, and became the dominant economic and social structures in rural areas. In the past decade, the on-going transition, combined with the economic deterioration of the large-scale farming system, has had a significant impact on rural settlements and the quality of life for rural inhabitants. The increased social problems of rural Russia have become important components of the on-going debate over the future of agricultural reform. It is becoming clear that the remaining elements of the former kolkhoz/sovkhoz structures are unable to properly address the needs of the rural population, and as noted by some Russian specialists as well (see, for example, A. V. Petrikov's works¹), the need for a new approach toward rural social problems and rural development is growing more and more evident.

Increased Social Problems – Emerging Poverty

The kolkhoz/sovkhoz system, supported by significant subsidies and budgetary transfers, provided secure employment, and conditions for a simple, but acceptable life for the majority of rural inhabitants. The deteriorating financial state of the large-scale farms, and the absence of genuine economic reforms in rural areas, has led to declining living standards and increased economic difficulties for a significant portion of the rural population.

Beginning in 1991, there was an increase in migration to Russian villages from neighboring CIS countries. However, starting in 1996 the overall rural population growth became negative (see **Table 5.1**) due to a reduction in migration to rural areas in the second half of the 1990s (in 1995, the migration-related growth of the rural population was 96.32 thousand while in 2000 it was only 4.8 thousand), and excess of deaths over births. The death rate of the rural population increased from 13% in 1990 to 17% in 2000, while the birth rate, declined from 15.5% to 9.8%. Mortality is especially high among men. The paucity of births is the result of economic hardships and lowered fertility rates caused by an increase in infectious diseases and alcoholism.

Table 5.1: Rural *de jure* (Resident) Population, by Age and Sex

	1991	1996	1997	1998	1999	2000	2001
Rural Resident Population in millions	38.8	39.9	39.8	39.6	39.5	39.5	39.2
as % of total population	26.2	27.1	27.0	27.0	27.0	27.1	27.7
Breakdown by Age Group (%)							
0-15	26.5	25.3	24.9	24.4	23.7	23.0	22.2
16-59	50.9	51.4	51.7	52.2	53.1	54.1	55.4
60 and over	22.6	23.3	23.4	23.4	23.2	22.9	22.4
Breakdown by Sex (%)							
Male	47.2	47.4	47.5	47.5	47.6	47.6	47.7
Female	52.8	52.6	52.5	52.5	52.4	52.4	52.3

Source: Stat. Yearbook. Agriculture in Russia, Goskomstat, 2000, p.17
Agro-Industrial Complex in Russia, 2001. Goskomstat, p. 10.

¹ See, for example, Nikonovskie Readings-2000: Market Transformation of Russian Agriculture...

The structure of population rural areas is gradually changing. There are fewer young people. If this trend continues over longer period of time, an aging and alcohol-ridden rural population will undermine the potential of rural economy for recovery and growth.

The number of rural settlements is decreasing. According to the 1959 census, there were 294,059 rural settlements, while the 1989 census showed only 152,922. Most of the settlements counted in the 1989 census (95,000) were inhabited by less than 100 residents (26 million total); 40,000 settlements had 101-500 residents (9.7 million), and the majority of rural population (26.7 million) lived in settlements of more than 500 residents (roughly 20,000). These larger settlements (more than 500 residents) changed least over time, while the number of smaller settlements was more than cut in half between 1959 and 1989.

According to the official 2000 statistics, 65.1% of the rural population had cash incomes below the poverty level (see **Table 5.2**), a much higher percentage than in urban areas. Though most of the Russian poor do live in cities, the percentage incidence of poverty is much higher in rural areas, because incomes of rural population are generally lower and the number of dependents are higher than in urban areas.

Table 5.2: Poverty Level in Rural and Urban Areas in 1997-2000

	1997		1998		1999		2000	
	rural	urban	rural	Urban	Rural	urban	rural	urban
Share of population whose per capita cash income is below subsistence level*, %								
	59.7	36.6	65.0	41.7	73.1	54.3	65.1	43.5
Of which half or less	31.2	10.6	34.9	13.6	42.9	21.3	33.1	13.4
Share of population with average per capita disposable resources (cash income plus in-kind income, plus credits, plus savings used) below subsistence level, %								
	41.1	28.8	46.7	34.6	56.8	47.7	48.1	37.0
Of which half or less	13.4	5.8	14.7	8.0	22.2	14.9	15.1	8.5

Source: Statistical Yearbooks "Income, Expenditures and Consumption of Households" in 1997, 1998, 1999 and 2000. Goskomstat.

* Monthly subsistence level was: RU 411.2 thousand in 1997 (old rubles) , RU 493.3 in 1998, RU 907.8 in 1999, and RU 1,210 in 2000.

During the transition period, there is some evidence that the gap between average per capita gross incomes in rural and urban areas deepened. According to L. Bondarenko² the ratio of per capita income in urban areas to rural areas in 1990 was 114.9%; in 1998 this ratio increased to 143.3%. In 1999, it fell slightly to 141.8% and increased again to 150.6% in 2000. A significant differentiation of household incomes both in urban and rural areas is a characteristic feature of the socioeconomic situation in Russia. At the same time, in rural areas differentiation by cash income is higher than in cities, while differentiation by gross income and all available income is lower (see **Table 5.3**). It should also be noted that since 1998 social stratification in rural areas has been slightly decreasing while in urban areas it has grown compared to 1998 and remained unchanged in 2000 compared to 1999.

² L.V.Bondarenko "Incomes and Consumption in Agriculture", "Economics of agricultural and processing enterprises," #11, 2000, p.39

Table 5.3: Differentiation of rural and urban household incomes (per average household member, rubles/month)

	1998			1999			2000		
	Rural	Urban	Rural to Urban, %	Rural	Urban	Rural to Urban, %	Rural	Urban	Rural to Urban, %
<i>Cash income</i>									
First decile	90.2	189.6	47.5	150.1	286.1	52.5	212.7	402.9	58.8
Last decile	1050.9	1880.6	55.9	1727.0	2972.6	58.1	2225.3	4175.8	53.3
Differentiation rate	11.7	9.9	1.18	11.5	10.4	1.11	10.5	10.4	1.01
<i>Gross income</i>									
First decile	152.7	213.4	71.6	243.8	321.8	75.7	324.6	450.4	72.1
Last decile	1491.9	2028.0	73.6	2133.0	3128.4	68.2	2690.4	4361.1	61.7
Differentiation rate	9.8	9.5	1.03	8.7	9.7	0.90	8.3	9.7	0.86
<i>Expenditure (available income)</i>									
First decile	157.1	222.1	70.7	248.4	331.6	79.9	390.4	460.8	74.9
Last decile	1559.9	2195.6	71.0	2241.2	3349.2	66.9	2849.5	4786.9	66.9
Differentiation rate	9.9	9.9	1.0	9.0	10.1	0.89	9.0	10.1	0.89

After the 1998 financial crisis, agricultural experts pointed out numerous "windows of opportunity" for domestic agricultural producers, and predicted considerable growth in the sector. In fact, there was some growth; however, an increase in rural household incomes did not occur until 2000. In 2000, the rural poverty level went down relative to 1999, but it was still higher than in pre-crisis 1997 (see Table 5.2).

The root cause of increased rural poverty is the economic collapse of the large-scale farms. Most collective enterprises reduced the volume of production significantly (from 1992-1998 by 50%), and cut the labor force by 3 million during the same period. In 1999–2000, agricultural enterprises experienced some economic growth, but their labor force continued to decrease. The decline in economic activity resulted in a very significant contraction in agricultural salaries, both in absolute and relative terms. In 1998, the average salary in Russian agriculture was 469 rubles per month, which amounted to only 44.5% of the average salary in the country; in 1999 it was at 629 rubles (or 41.3%), and in 2000 863 rubles (38.8%). A further problem has been the delay in wage payments. In 1998, 88% of agricultural enterprises had wage arrears that were 5.2 times their monthly salary expenses. In 2000, it was 70% and 2.8 times, respectively. Wages to farm workers are late, and a significant portion (often 50-60%) of wages are paid in kind. In kind payments contribute to household food security and household-based agricultural production, but at the same time, they reduce the disposable cash incomes for rural residents. In assessing the income situation of the rural households, it is necessary to add, however, that a significant portion of rural household gross income (27% in 2000) originates from household farming activities (household plots). Taking this extra income into account, the average gross income of a rural inhabitant engaged both in working for an agricultural enterprise and having a household plot, comes closer to the average salary in the country as a whole, but still remains lower by 30-33%.

The value of agricultural labor in the Russian economy is lower than any other labor source. The share of agricultural labor in the final food price is undervalued/underestimated. This is the result of a number of factors:

- Food processors with monopolies that keep procurement prices low;
- poor development of rural infrastructure;
- poor development of alternative channels of agricultural marketing;
- inability of workers in agricultural enterprises to influence the decision-making process and have some control over economic transactions;

- corruption of agricultural managers under conditions where the majority of business transactions are made outside the banking system (barter, offsetting arrangements, gray market schemes, etc.);
- lack of a fully formed agricultural labor market with access to market information; and
- a much higher burden of dependency (number of dependent children, unemployed, disabled, etc., per household) in rural areas compared to urban areas.

The main cause of growing rural poverty, however, is the crisis of traditional (kolkhoz/sovkhoz type) enterprises that are not able to adapt to a market system. This has caused such phenomena as localization of poverty in the so-called depressed rural regions and rural unemployment.

The economic downfall of rural Russia can probably be best represented by the significant increase in rural unemployment (see **Table 5.4**). In 2000, the number of rural unemployed reached 1.8 million, out of which, only 15.2% received state unemployment benefits. Of the total number of the unemployed, 54.6% were young people under 29, 45% were women. Over 50% of the rural unemployed in 2000 had been trying to find a job for more than a year.

Table 5.4. The Level of General and Registered Rural Unemployment

Years	General Unemployment		Registered Unemployment	
	Thous. persons	%	Thous. persons	%
1992	613	3.7	101.7	0.6
1993	716	4.3	209.9	1.4
1994	1,024	6.4	445.1	2.9
1995	1,368	8.5	671.7	4.6
1996	1,432	9.1	710.7	4.8
1997	1,898	12.5	571.1	4.1
1998	2,034	13.9	494.4	3.6
1999	2,158	13.9	362.9	2.6
2000	1,813	11.7	325.0	2.3

As the overall statistics and our analysis in Chapter 3 indicates, the economic activities of rural populations have shifted toward so-called “household farming.” The production of household plots, initially intended for own consumption, has become one of the main sources of income for the majority of rural families. In 1998, household plots provided 58.6% of all total agricultural output in Russia. In 1999, the figure went down to 56.7% and in 2000 to 53.9%, however, household plots still play an important role in rural economy. Household farming is strongly linked to the large-scale farming sector for inputs and other supplies, and consists mainly of intensive horticulture, commercial potato growing, truck farming, production of meat and milk.

There is little alternative to agricultural activity in rural areas though the share of agricultural workers (excluding those working at their household plots) in total rural employment decreased by 14.8% from 1992 to 2002 (see **Table 5.5**). Although the number of self-employed increased significantly in rural areas, most of these self-employed are engaged in agriculture (household plots and individual private farms). About 14 million rural families have their own household plots, and about 260 rural families have individual private farms. A visible and sizable recovery of rural non-agricultural activities such as services, small-scale processing, and cottage industries, etc., has not yet materialized.

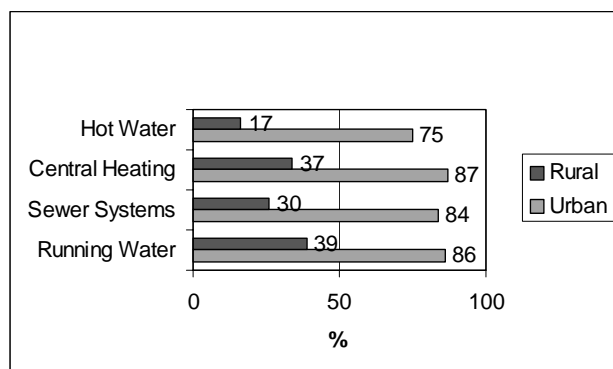
Table 5.5. Rural employment by sector (including working retirees)

	1992 *		1997		1999		2000	
	'000	%	'000	%	'000	%	'000	%
Total employment, including:	16,044	100	13,760	100	13,864	100	14,082	100
• Industry	1,857	11.5	1,783	13.0	1,680	12.1	2,004	14.2
• Agriculture and forestry	8,134	50.7	5,840	42.4	5,454	39.3	5,056	35.9
• Transport and communications	443	2.8	823	6.0	908	6.5	900	6.4
• Construction	1,165	7.3	493	3.6	449	3.2	535	3.8
• Trade, catering, procurement	914	5.7	944	6.9	1,096	7.9	1,183	8.4
• Other sectors	3,531	22.0	3,877	28.1	4,277	30.9	4,404	31.3

*according to labor balances

Physical and Social Infrastructure: Deteriorating Conditions

During the Soviet era, the infrastructure and service components of the rural sector were integral parts of large scale collective and state farms. The social infrastructure was owned and financed by the majority of agricultural enterprises. These farms provided frameworks not only for agricultural production, but also for rural social services and infrastructure. They managed the rural non-agricultural service and production activities as well. The overall development policies were focused on urban industrial areas. Basic services such as water supply, sewer systems, telecommunications, etc., were also relatively well developed in cities, towns, and larger villages, but not in the countryside. On the whole, rural dwellers have significantly lower levels of services, and poorer infrastructure than do their urban counterparts (**Figure 5.1**). While in urban areas 86% of housing and flats had running water, only 39% did in rural areas. The differences in hot water and sewer provisions are even starker³.

Figure 2: Selected Services and Infrastructure in Russia (2000)

The transition has had a negative impact on rural social services and infrastructure. The increased indebtedness of large-scale farms led to evaporation of resources on these farms and the reduction of services. Legislation in 1991-92 provided an opportunity for the large-scale farms and their successors to transfer their assets in the social sphere to the relevant provincial and local authorities. Upon transfer, the cost of administering and maintaining the social services became the responsibility of local and municipal authorities. There was however, no legal obligation, on the part of the local authorities to assume such assets. Poor local budgets are the main limiting factor for such transfers.

³ Agriculture in Russia, 2000, p.147 and Database of the Agrarian Institute

The privatization of rural housing was a specific case. Houses and apartments were offered to residents for purchase, and in case the users were unable to buy their dwellings, the ownership was transferred to the local administration. There was a distinct difference in approach between the sovkhozes and kolkhozes. In the kolkhozes and the enterprises that emerged from them, the housing was owned by the collective. Therefore the collective could choose the method of privatization that it thought best. In most cases, housing was included both in the property entitlement fund, and in the calculation of property entitlements. Thus, the collective members could use their property entitlements to purchase their residences. For the sovkhozes, housing was formally owned by the state, therefore privatization of housing was carried out in accordance with general and regional privatization laws.

While the situation has differed from region to region, with the exception of housing, the transfer of social assets and utilities has moved at a glacial pace. As indicated in **Table 5.6**, by 2000, 85% of rural housing was privatized, and only 15% remained owned by the state, municipality, or large-scale farm.

Table 5.6. Ownership of Rural Housing (%)

	1990	1995	1996	1997	1998	1999	2000
Private	62	82	82	83	84	85	86
State	35	8	7	6	5	5	4
Municipal	2	6	8	8	9	9	9
Cooperative	1	4	3	3	2	1	1
Total Rural Housing	100	100	100	100	100	100	100

Source: Russian Agricultural Statistical Yearbook, 2000, p. 147

The agricultural enterprises, however, still funded a significant portion of the expenses related to social infrastructure (**Table 5.7**). In 2000, agricultural enterprises spent 11 billion rubles on maintaining rural social and physical infrastructure. Rural enterprises only received about 12% of this amount in compensation from the local and federal authorities. These expenses represent a great burden for the large-scale farms and divert a huge amount of financial and management resources from business enterprises. The slow transfer of social assets also significantly hampers the restructuring process of agricultural enterprises, and makes village inhabitants continue to depend on services provided by the enterprises, making them less interested in reallocating their land and land shares to other, possibly more efficient, enterprises or family farms.

Table 5.7. The Share of Social Infrastructure Objects Financed by Agricultural Enterprises in the Total Number of These Objects in Rural Areas, %

	1991	2000
Collectivized Housing	27.7	18.1
Pre-schools	47.8	29.2
General Education (schools)	20.0	21.6
Clubs	41.2	43.5
Libraries	50.0	39.0

Source: "Agrarian Reform in Russia", p. 386. "Status of and Steps to Develop Agro-Industrial Production in Russia", MOA, 2001, p. 196

As a result of decreasing financing, both from the traditional sources (agricultural enterprises) and from the federal budget, as well as from local municipalities, the investment in rural social-cultural infrastructure continues to fall and its state is deteriorating (**Table 5.8**). Over the last decade (2000 relative to 1990), the number of children in preschool children's institutions fell to only 56 percent of previous levels, while the number of pupils in rural schools increased only by 4%. Compared to 1970, the

number of education institutions decreased significantly. The number of social assets and cultural activities is still falling.

Table 5.8. Social-Cultural Infrastructure in Rural Areas (Existing Stock)

Year	Pre-School Organizations		Schools	Club-Houses	Libraries	Hospitals
	Number (000s)	Number of pupils per 100 seats	(000s)	(000s)	(000s)	(central raion, raion, and local, 000s beds)
1970	25.6	95	79.9	68.8	41.5	
1975	28.2	95	63.7	65.5	42.4	
1980	31.3	97	52.6	67.7	42.1	
1985	35.9	93	50.2	66.1	42.2	615
1990	40.6	94	48.6	62.6	42.2	641
1995	31.5	68	47.8	52.6	40.1	571
1996	29.4	64	47.5	51.7	39.7	
1997	27.5	62	47.1	50.4	39.4	
1998	25.6		46.4	49.3	39.1	
1999	24.3	60	46.0	48.4	38.8	484
2000	22.7	62	45.2	48.1	38.8	

Source: Statistical Yearbook, Goskomstat, M.1998. pp. 265, 268, 322 and "Agriculture in Russia, 2000, p. 152, and the Agrarian Institute Database

Except for the expansion of natural gas networks, investments in rural social and physical infrastructure have declined dramatically during the last decade. The investment into rural outpatient health facilities in 1999 was only 19% of the 1990 levels, while cultural facilities and water system investment were only 10% of 1990 levels (**Tables 5.9** and **5.10**). These trends are alarming, since they indicate that the rural-urban gap in social and physical infrastructure is widening rather than narrowing, and Russia could possibly move backwards in international comparisons of rural infrastructure.

Table 5.9. Commissioning of new social-cultural infrastructure assets in rural areas

	1990	1995	1996	1997	1998	1999	2000	2000 to 1990 (%)
Housing (mln. square meters)	17.9	8.9	8.1	8.1	7.2	7.8	7.2	40.2
Education Facilities (thous. pupil seats)	180.8	86.8	54.8	59.8	41.7	45.5	50.5	27.9
Outpatient Health Facilities (thous. visits per shift)	17.6	6.2	3.2	4.0	3.5	3.4	3.3	18.8
Hospitals (thous. Beds)	5.3	2.3	1.4	2.5	1.2	1.5	1.5	28.3
Cultural Facilities (thous. Seats)	90.2	16.8	11.4	10.5	7.5	9.1	7.1	7.9

Source: Russian Agricultural Statistical Yearbook, 2000, p. 149

"Status of and Steps to Develop Agro-Industrial Production in Russia", MOA, 2001, p. 194

Table 5.10. Commissioning of new physical infrastructure assets in rural areas

	1990	1995	1996	1997	1998	1999	2000	2000 to 1990 (%)
Water System (km)	5,901.8	1,607.6	727.2	778.4	577.8	615.9	636.4	10
Sewer System(km)	332.5	82.2	69.7	62.9	--	--	-	--

Natural Gas Network(km)	7,000	16,500	16,500	19,700	18,600	16,900	16,200	231
Rural Motorable Roads (km)	11,600	6,860	5,140	4,440	4,090	4,600	5,630	48.5

Source: Russian Agricultural Statistical Yearbook , 2000, p. 151, Russia in Figures, Goskomstat, 2001, p. 113.

Non Agricultural Rural Economy: Waiting for Recovery

The non-agricultural component of the rural economy represents a rather significant component of rural life in many East European countries. It provides significant additional income and employment for the rural population, and creates demand and markets for local products as well as opportunities which are essential to increase efficiency in the agricultural sector. In Russia, as we indicated above, non-agricultural activities were included in the kolkhoz/sovkhoz system during the soviet era. The separation of these activities from the agricultural organizations and the emergence of new rural non-agricultural economic activities, have been very slow and has happened on its own with little outside assistance. Although, according to some surveys, rural inhabitants receive significant non-agricultural income in Russia, this income comes mainly from social transfers, crafts, hunting, fishing, and non-agricultural entrepreneurial activities (see **Table 5.11**) The small-scale non-agricultural business activities characteristic of rural areas in market economies have not yet materialized.

Table 5.11. Gross Income Structure of Rural Households in 1998 (average monthly calculations, per capita)

	Rubles	%
Salaries (received from enterprises and organizations)	167.7	30
Social transfers (pensions, allowances, benefits)	115.7	21
Private subsidiary household plots	168.7	30
Other incomes (salaries received from private sector, entrepreneurial income, interests, dividends, insurance premium, income from hunting, fishing, gathering of mushrooms and berries)	106.5	19
Gross income – total	560.6	100

Source: L.V. Bondarenko. Economics of Agricultural and Processing Enterprises, #11, 2000, p.40

There are many reasons for this situation. The age composition of the rural population, the inadequate health and social services, and especially the infrastructure such as roads, telecommunication, and waste management, have definitely contributed to this situation. However, rural policies which still emphasize centralized administrative authorities, the lack of competence of lower level authorities, combined with bureaucracy and non-transparent procedures, together with the absence of support for rural small-scale business activities, and especially the lack of access to suitable rural finance and credit facilities, have resulted in the sense of alienation and lack of rural entrepreneurship that one can easily observe in rural Russia today.

Russia must recognize the importance of rural non-agricultural activities as organized according to the principles of market economies. Without new jobs created in the non-agricultural rural sector and income that those jobs provide, rural Russia cannot recover, and the agricultural sector will never be modernized. The experiences of Central European countries demonstrate that the development of rural non-agricultural activities in the transition period are predicated on two types of pressure: *demand pull* – where rural people respond to new opportunities; and *distress push* – where the poorest are driven to seek non-farm employment as a survival strategy. These processes generally work in tandem, and support the increase of productivity in the agricultural sector.

The Need for a Rural Development Strategy

The concept of rural development is not part of traditional approaches to rural social and economic problems in Russia. The various components of rural livelihoods were always viewed in their relation to agricultural production and treated as a part of the kolhoz/sovkhoz system. As the transition progressed, and rural social problems emerged, there has been some progress in separating social services from agriculture, but the change has not yet resulted in a recognition of the need for treating the problems of the rural space in an integrated, multi-sectoral, and holistic manner.

The current situation in rural Russia, in addition to implementing a consistent reform package for the agricultural sector requires immediate actions as well as a longer strategic view. The short-term actions obviously would need to lay the foundation for implementation of a comprehensive rural development strategy. In the short-term, we recommend focussing on the completion of transition-related tasks. The strategy can be summarized as follows:

- Complete the separation of the rural social infrastructure from the large-scale farming enterprises. Social assets should be considered as assets in the settlement of large-scale farm debts to the public sector (e.g., for tax arrears, pension fund).
- Create a system to finance rural social services and infrastructure. The system should would i) clearly delineate responsibilities among the federal, regional and local budgets; ii) establish mechanisms that would make transfers from upper to lower levels of government predictable and impose hard budget constraints; and iii) provide local governments a tax base which could not be pre-empted by higher levels, to give them control over a source of revenue at the margin.
- Among rural infrastructure investments, give priority to roads, telecommunications, education and health for public investment. Small size rural settlements should receive services from mobile service facilities (e.g., traveling medical centers, libraries).
- Target protection to the most vulnerable social groups in rural areas. In particular, provide assistance to rural pensioners in renting out their land shares to receive an additional source of income.
- Create a good business environment generally conducive for the start-up and operation of rural small-scale non-agricultural business activities.
- Facilitate the elimination of informational isolation of rural population by the development of an information and advisory service, regional and municipal public information centers, and mass media.
- Support the strengthening of civil society, development of self-government and civil society institutes in rural areas and the enabling of rural populations to have an increased voice in their affairs, and in national decisions.

A comprehensive rural development strategy should be developed and adopted by the Duma as soon as possible, to provide a solid framework for long-term rural recovery. This strategy should include: a) a vision of rural development for Russia; b) specific strategic objectives for rural development, including regional concepts and programs; and, c) an action plan and financing framework for its implementation.

The rural development strategy should reflect the realities of Russia, as well as being based on the concept of rural development as it has recently emerged in developed countries. These strategies are based on a holistic view of rural development which encompasses all components of the rural space and focuses on people and the use of multi-sectoral participatory approaches. The major objective of these strategies is to improve the well-being of rural people, who are not only farmers or agricultural workers, and widen the scope of rural development to each segment and component of rural life.

This overall concept is being implemented in the various segments of the developed world, according to conditions and the specific needs of the rural societies. The European approach emphasizes the importance of safeguarding a type of rural life that has developed over the centuries, and accordingly

treats agriculture as multi-functional activity, which encompasses not only economic value added, but social and environmentally positive attributes as well. The population in these countries is ready to accept this approach, and the costs related to this concept of rural development. In North America, however, the focus is on rural livelihoods which are economically viable under more or less free-market conditions. There is less emphasis on maintaining existing rural settlements and agriculture as a social good. The two different approaches reflect historical and geographical differences. Europe is a densely populated region with long traditions of rural life, while North America has a vast landscape which has only recently been settled, and a tradition of mobility. Neither of these concepts applies directly to the Russian situation. Russia has to develop its own rural development concept, which should be based on international experience and reflect socioeconomic development trends in Russian rural areas.

A vision of rural development in Russia is summarized in **Box 5.1**. The following principles should guide Russia in the development of its own unique rural development strategy according to the vision outlined in this box:

- Macroeconomic and sectoral trade policies are stable. The foreign exchange, trade, and taxation regimes do not discriminate against agriculture, but are similar for rural and urban sectors.
 - The growth of private agriculture is encouraged by minimizing distortions among input and output markets and by market development for agricultural and agro-industrial products, both at home and abroad.
 - Public investment and expenditure programs for economic and social infrastructure, health, nutrition, education, and family planning services do not discriminate against rural populations or the rural poor.
 - Large farms and large agro-industrial firms do not receive special privileges and are not able to reduce competition in output, input, land, or credit markets.
 - The agrarian structure is dominated by efficient and technologically sophisticated private (and an increased proportion of individual) operators. The rights and needs of women farmers and wage-laborers are explicitly recognized.
- Box 5.1: A Vision for Rural Development in Russia**

 - Rural growth is widely shared, with private business and competitive agriculture and agribusiness as the main engines of growth.
 - Genuinely private larger, and family, farms and non-farm enterprises provide ample remunerative employment opportunities to men and women.
 - Rural people manage the soils, water, forests, grasslands, and fisheries in a sustainable manner.
 - Rural people are linked to well-functioning markets for products, inputs, finance and information.
 - Rural people have access to medical care, clean water and sanitation, family planning services, educational opportunities, and sufficient nutritious foods.
 - Essential legal frameworks, public investment, and productive and social services are provided and financed in a decentralized and participatory manner.
 - Rural areas are characterized by the development of civil society institutes and non-governmental organizations that ensure protection of economic and social interests of various groups of the rural population. Rural people participate in the preparation of rural development programs. Rural self-government is further developed.
- Access to, and security of, land and water rights are actively promoted.
 - Private and public sectors complement each other in generating and disseminating knowledge and technologies. Public sector financing is particularly important for areas of limited interest to the private sector, such as strategic research, small holder extension, and diffusion of sustainable production systems and techniques.

- Rural development programs mobilize the skills, talents, and labor of the rural population through administrative, fiscal, and management systems that are decentralized and participatory, and through private sector involvement.
- Rural development programs are designed so that the rural poor and other vulnerable groups are fully involved in the identification, design, and implementation of the programs. Otherwise, rural elites will appropriate most of the benefits.

Chapter 6: Agricultural Policy: Institutional Aspects¹

Vera Matusevich and John Nash

Russia is implementing its agricultural policy both at the federal and regional levels. Budget transfers to agricultural producers are a major type of agrarian sector support, with the federal budget providing only about one-third of the agricultural support and two-thirds coming from regional budgets. This chapter deals with the institutional aspects of budget support.

Federal Agricultural Budget

The budget drafting procedure is established in Article 184 of the Budget Code. At the first stage of budget preparation for the next year, the Government selects the Economy Forecast Plan for Next Fiscal Year, including macroeconomic indicators that reflect economic conditions. Based on the selected Forecast Plan, the Ministry of Finance determines major budget parameters (revenues, expenditures and deficit/surplus) and allocates budget expenditures among the functional classification sections for subsequent approval by the Government.

The Ministry of Finance submits to the federal executive authorities (and in practice, to all direct recipients of federal budget funds, i.e. chief budget administrators of agencies) budget projections that are to be further distributed between specific spending units, and informs the executive authorities about the methodology for the establishment of intergovernmental fiscal relations for next year and medium term.

At the second stage, the chief budget administrators distribute the budget funding limit according to the functional and economic expenditure classification and among the subordinate administrators and recipients of budget funds. At this stage, the federal executive authorities also propose structural and institutional reforms, as well as the cancellation, suspension or phased implementation of regulatory acts that have inadequate funding for the next year. The budget projections are agreed within the framework of the Interministerial Commission headed by the Minister of Finance.

Budget expenditures on agricultural support have been a traditional point of controversy between the Government and the Duma. The agrarian interests in the Duma have been able to successfully lobby to increase the allocation in the budget law for agricultural support by a significant amount — over 50% in 1997 and over 80% in 1998. This pattern did not hold in the unusual year of 1999, when the budget was approved soon after the crisis of August 1998, and the amount allocated in the final law closely matched the government's proposal. But again in 2000, the proposed allocations was increased by Rb5 billion. As far as budget 2001 is concerned, due to additional budget revenues allocated in December 2000, the basic budget for agriculture

¹ This section draws on work carried out by the Analytical Centre Agrifood Economy of the Institute for Economy in Transition, under a contract supported by a grant from the Government of Japan designated for preparation of the Structural Adjustment Loan 4 from the World Bank, as well as other sources. However, the conclusions in the current chapter are those of the authors of the current report, and no representation is made that they are shared by the Analytical Center.

sector (without additional allocations in the amount of Rb2 billion to Rosselkhozbank through ARCO, allocations for agricultural science, education, and other activities of the MOA) increased by Rb9.4 billion (see **Table 6.1**), or more than 2 times. These additional allocations include: Rb2 billion for regulation of grain market²; Rb3.4 billion for support to regions that suffered from weather calamities (in reality, a writing off of a part of agricultural debt); Rb2.5 billion for agricultural input leasing, and Rb1.5 for purchasing agricultural machinery in Belarus.

Table 6.1: Federal Budget Allocations for the MOA's Activities, 2000 – 2001, mln rubles

	Budget 2000 (initial)	Budget 2001 according the law, without additional allocations	2001 to 2000, %	Additional Budget Allocations	Budget 2001, total	Total Budget 2001 to Budget 2000, %
TOTAL (PART 08 OF THE FEDERAL BUDGET)	10,333.0	20,800.7	146.2	9,415.0	24,523.2	237.3
I. Agricultural Production Total	4,852.5	9,627.7	198.4	6,000.0	14,127.7	291.1
Of which						
1. Operating expenditures of the MOA and its structures	2,303.0	2,570.0	111.6		2,570.0	111.6
2. Subsidies and compensations, total	929.5	2,150.0	231.3		2,150.0	231.3
Of which						
2.1. Insurance subsidies	80.0	230.0	287.5		230.0	287.5
2.2. Subsidies for hemp and flax production	70.0	70.0	100.0		70.0	100.0
2.3. Subsidies to support elite seeds	65.0	250.0	384.6		250.0	384.6
2.4. Sheep breeding subsidies	140.0	270.0	192.9		270.0	192.9
2.5. compensations for purchasing mixed fodder	150.0					
2.6. Subsidies for pedigree livestock	289.5	620.0	214.2		620.0	214.2
2.7. Subsidies for North deer breeding	10.0	70.0	700.0		70.0	700.0
2.8. Subsidies for creation of the Federal Reserve of vet medicine	100.0	150.0	150.0		150.0	150.0
2.9. Subsidies to vet and sanitary utilization plans	25.0	40.0	160.0		40.0	160.0
2.10. Subsidies for creation of the Federal Reserve of plant protection means		450.0			450.0	
3. Creation and maintenance of the Federal Seed Reserve	100.0	150.0	150.0		150.0	150.0
4. Investment	200.0	300.0	150.0		300.0	150.0
5. Support to private individual farms	20.0					
6. Soft Loan Fund	500.0					
7. Compensation for difference in the loans' interest rate		1,398.3			1,398.3	
8. Leasing						
Of which						
8.1. Leasing Fund	500.0					
8.2. Financing of cattle and machinery leasing		3,000.0		2,500.0	5,500.0	
8.3. Purchases of agricultural machinery from Belarus				1,500.0	1,500.0	
9. Expenditures for grain market regulation				2,000.0	2,000.0	
10. Maintaing of fauna		59.40			59.40	
11. Creation of Seasonal Reserve for Spare Parts	300.0					
II. Land Resources	5,480.5	5,480.5	100.0		5,480.5	100.0
Of which						
1. Land fertility increase and melioration	2,830.5	2,830.5	100.0		2,830.5	100.0
2. Compensation for mineral fertilizers and chemicals	2,650.0	2,650.0	100.0		2650.0	100.0
III. Liquidation of natural calamities after-effects				3,415.0	3,415.0	

² State interventions in the grain market started in fall of 2001.

Most of these measures financed from the additional revenues are of questionable necessity, and the arguments supporting them had a weak economic basis. For example, the main argument for a considerable increase in the State support to agricultural leasing was the statement that Russia lost about 10 mln. t of grain, 1 mln. t of meat, 6.6 mln. t of milk products due to lack of agricultural machinery. Total losses were estimated at the level of Rb100 billion (about USD3.6 billion). It is unclear why these losses were attributed only - or even mainly - to the agricultural machinery problem. It appears rather that decisions are driven by the interests of most influential lobby groups, like agricultural machinery producers and large operators in the grain market. This also explains why small individual farms were left without special support in 2001 which was provided previously and reflected in the budget (a special line).

What was actually spent, however, was quite different from what was budgeted. In 1997, only 71 percent of the amount budgeted for agriculture was actually spent, and in 1998, this fell to around 45 percent. In the spending process, a kind of sequestration process appears to work to systematically reduce spending. Thus, the amount of financial support given to agriculture depends not so much on plans as on ad hoc spending and sequestration decisions during the course of the year. The total amount of federal budget expenditures on agriculture is largely dependent on the political process rather than any economic rationale. Therefore, the Government's task is to ensure the best possible use of resources allocated to the sector. Lobbying skill to obtain and secure money from the budget is highly valued, and the agricultural lobby insists on the existence of a Deputy Prime Minister position in charge of agriculture. (Once, when this position was abolished as a result of reorganization in the Government, the agrarian lobby managed to revitalize it). Politically strong top managers of the sector managed to avoid agricultural (budget) spending reduction in 1999 and 2000. Since the budget is not executed automatically, and the approved Law on Budget provides no guarantee for the actual allocations, to ensure disbursement of budget funds to agriculture, special governmental resolutions are issued every year (e.g., resolutions on field spring works, on harvesting, on the agro-industrial complex functioning in the particular year). During January 2001 hearing in the Federation Council (the Upper House) the Minister of Agriculture was accused of failing to issue the governmental ordinance of functioning of the agro-industrial complex in 2001. He reacted immediately with the defense that there was no a year when this resolution has been issued by the Government before February. The absurdity of the situation is in the fact that both the Minister and a law maker believed that this resolution is an important condition for the success in agribusiness, and that without this resolution the sector would fail to perform.

The budgeting process in the agro-industrial complex is characterized by a serious drawback: the annual budget preparation procedure is not linked to the sector's mid-term strategic development concepts. Thus, the 2001 and 2002 budgets practically do not reflect major provisions of the National Agro-Industry Development Concept for 2001-2010. The Concept focuses on the regulation of agrifood markets and social rural development while the 2001/2002 budgets retain the subsidy structure established in the mid-1990s.

The MOA strongly believes that in order to perform any significant function, a special governmental organization/structure is needed, for example the Agency on Market Regulation to regulate grain market, Agricultural Insurance Agency to implement crop insurance program. Like in other sectors of Russian economy, the process of management is bureaucratic, while agricultural producers are less organized force than workers of other sectors. Weak and disintegrated rural society practically does not participate in the decision making process.

Workers of agricultural enterprises failed to influence the policy of their own directors, much less regional or federal agricultural policies. The result is a feeling of disempowerment; more than 80% of private individual farmers do not consider that any State support was provided to this sub-sector in 1999³.

The implementation of major budget-financed federal programs increasingly involves the establishment of state enterprises. Thus, over the last few years, the Government has established not only SUE (State Unitary Enterprise) 'Federal Agency for Agrifood Market Regulation', state Rosselkhozbank, SUE Rosagroleasing, Agricultural Insurance Agency (to implement crop insurance programs), but also many state or parastatal regional agencies. For instance, every region has an analog of the Food Corporation under the regional Administration; regions also have their own leasing companies. In other words, instead of pursuing the stated policy of market infrastructure establishment as formulated in the Concept, the Government is replacing such infrastructure by state agencies, which inevitably inhibits the establishment and development of private institutes in the relevant spheres.

At the federal level, off-budget funds have rarely been used, with one notable exception. In 1994-1995 a special off-budgetary fund was created for support of agriculture. The fund was formed from a 1.5% tax deducted from the profit of firms in all sectors of economy. One-third of the resources of the special fund was accumulated at federal level and was routed to support agriculture (2/3) and coal industry. The regional share of the fund was routed to the same sectors, but in a proportion established by the local authorities.

The MOA is the chief administrator of federal budget funds allocated for agricultural purposes and is responsible for the development of programs to implement Russia's agricultural policy. The Ministry initiates discussions of urgent agricultural policy issues at the interministerial level. The Commission for Agro-Industrial Complex (AIC) has started working to address the top priority issues. The Commission has established three interministerial task forces on: financial rehabilitation and debt restructuring of agricultural enterprises; AIC regulation; and agricultural lands. Similar commissions have been established in all regions. So far, their efficiency is not evident. The first steps proposed for regulation-- in particular, grain market regulation—are being watched by agricultural producers with concern. Massive grain purchases or selling can undermine the still-fragile grain market. Licensing of the majority participants of grain market (those who involved in procurement, processing, storage, and grain marketing for State needs, and also all producers of bread, macaroni, flour, and groats) may cause additional difficulties for entrepreneurs.

The new Regulations on the MOA and the Federal Land Cadaster Service (FLCS), recently approved by the Government, do not reflect the new contents of the operation of these agencies in market conditions. The MOA Regulations indicate that the Ministry shall develop proposals on the agricultural policy and AIC restructuring; however, most functions listed in the Regulations are still of command-and-control nature (state contracts for pedigree cattle, formation of the State Seed Funds, allocation of federal budget resources, agricultural export/import rules, establishment of certain prices and tariffs). The MOA is also charged with supply-related responsibilities (provision of requisite inputs to the AIC). The Regulations do not proceed from the necessity to introduce structural changes in the sector; they lack advisory

³ Agriculture in Russia, Goskomstat, 2000, p. 98

functions which should constitute the main substance of the MOA's work. They proceed from the homogeneous production structure of the sector, and there are no functions related to the support of private individual farms and household plots. The FLCS's Regulations, compared to those of its precursor - State Land Committee's - are mainly focused on the technical aspects of land management (land cadastre, land use and control over land use). The issues of land reform do not play a major role in its activity.

The establishment of a system of producer associations and their influence on the federal agricultural policy is a positive phenomenon. The Government is still trying to find possible ways of cooperation with these associations. Until now, such associations have been formed only by processing companies and traders, while agricultural producers are not well associated and there is practically no one to represent their interests in the national agricultural policy development process. The MOA plans to substantially increase the regulatory role of unions and associations of agricultural producers in the area of food markets. There are currently several influential public organizations of agricultural producers: the Grain Union, the Union of Food Exporters, the Meat Union, the Sugar Producers' Union, and the Milk Union. It is expected that these public organizations, jointly with the MOA, will determine rules and regulations concerning certain food markets (depending on the specialization of the union/association). These rules and regulations will become mandatory for all firms operating in these markets. Moreover, unions of producers are expected to furnish/terminate licenses to new firms entering the markets. New firms would be required to join a union and pay membership dues. These fees would be used for the creation of the union's management structures. The net effect of this is that these unions would subsume a portion of the Federal government's functions. This process of creation of producers' unions and associations is called "affiliating" or "self-regulating" in food sub-sectors.

Partial delegation of federal authorities' functions to the sector unions requires a well-balanced and rather cautious approach. It should be recognized that it is difficult for the sector unions to develop and implement agricultural policy taking into account all interests, including the interests of medium and small enterprises, and not only the largest ones which they mainly promote. When addressing agricultural economy issues, the MOA should take care to provide for the priority of public interests within the framework of its relations with the sector unions.

Regional Budgets

Much of agricultural policy is made at the regional level. In recent years regions have had an increasingly significant effect on the incentive structure and the overall quantitative support through trade and price policy, the operation of commodity credit programs, and their budgets for agricultural support programs. Price controls on food products are commonly used. For example, in 1998, the Nizhny Novgorod Regional Administration announced price limitations on agricultural goods, including poultry, dairy products, meats, and grains. The new prices would be set "according to the ability of the local population to pay, not according to world prices."⁴ The Krasnodar krai Administration only in February 2001 stopped subsidizing bread prices by 60-70%. As a result of the subsidies, the price of a bread loaf in Krasnodar krai has been 2.4 ruble, compared to 6 – 6.5 rubles in neighboring regions. The Administration now also plans to refrain

⁴ First Deputy Governor Batyrev (Kommersant Daily 14 September 1998)

from putting a ceiling on procurement/purchasing prices for bread, as it was practiced in previous years.⁵

In fact, the introduction of interregional trade barriers means that the regions implement their own trade policy with respect to other regions. These barriers have a much stronger impact on the national agrifood market than on the markets of other goods.⁶ Such regional policy also affects international trade. Surplus-producing regions actually control exports in order to keep local food prices at a low level, which leads to the fragmentation of Russia's internal market, and, as a result, there is a significant interregional price differentiation (see a detailed discussion in Chapters 1 and 2). Recipient regions control imports to protect local producers. These measures include direct quotas on imports, as well as less blatant trade controls, such as special local sanitary and phytosanitary rules, standards and certification, and labeling requirements. These are enforced at the border, rather than at the point of sale, thereby discriminating against goods imported from outside the region.

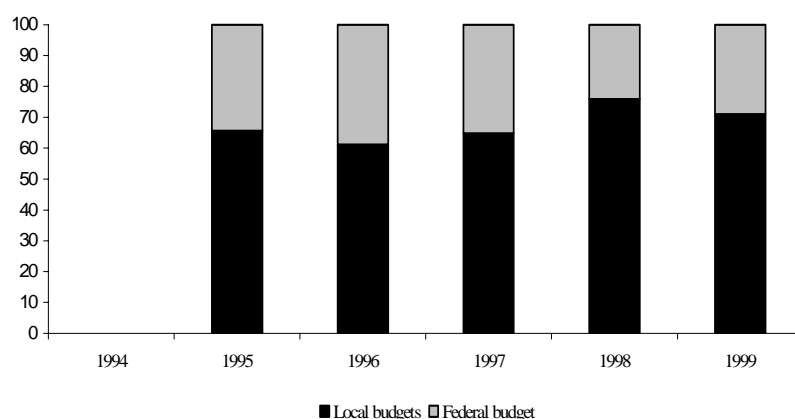
There are many other ways to influence food markets used by regional Administrations. Among these measures the most common are: control over retail and wholesale prices (by fixing price ceilings or trade margins), rationing of food consumption; creation of grain and other products reserves; mandatory marketing of agricultural production to regional Food Corporations; subsidies and compensations from regional budgets, financing of agricultural programs from regional budgets or by more successful industrial enterprises; tax benefits; licensing, food assistance programs for low income groups of the population; and participation in the international food aid programs.

A number of regions have introduced their own testing laboratories and demand that foreign products meet a local standard which is often more rigorous than the national standard. In effect, the seller has to pay twice for the same battery of tests. There are currently no mutual recognition arrangements among the regions. Indeed, certification arrangements frequently compete against one another, and one region will often not accept the testing regime of another. This is the case, for instance, between the testing regimes of Primorsky Kray and Kamchatka. Also, in many regions the local administration itself can act as a monopoly through the role it plays in local purchasing and supplying of product for local budget financed institutions. Sometimes tenders for specific orders are, in fact, closed to foreign companies. All of these create serious issues, not only for the integration of Russia's internal market, but also for Russia's WTO accession negotiations.

During the second half of the 1990s, regional budgets were the main contributors to the financing of the agricultural expenditures of the consolidated budget, while the share of the federal budget in aggregate agricultural support has been declining (**Figure 6.1**). In addition, the share of regional budgets that are actually spent is much higher than at the federal level.

⁵ Izvestia, February, 6, 2001, p.6.

⁶ Here and in the following paragraph, we use data from V. Vitalis (1998), "Agricultural Support and Trade Distorting Measures at the Sub-Federal Level in the Russian Federation".

Figure 6.1 Share of federal and regional budgets in consolidated budget expenditures for agriculture, %

Source: Treasury of Russian Federation data, calculations by Analytical Centre Agrifood Economy, 2000.

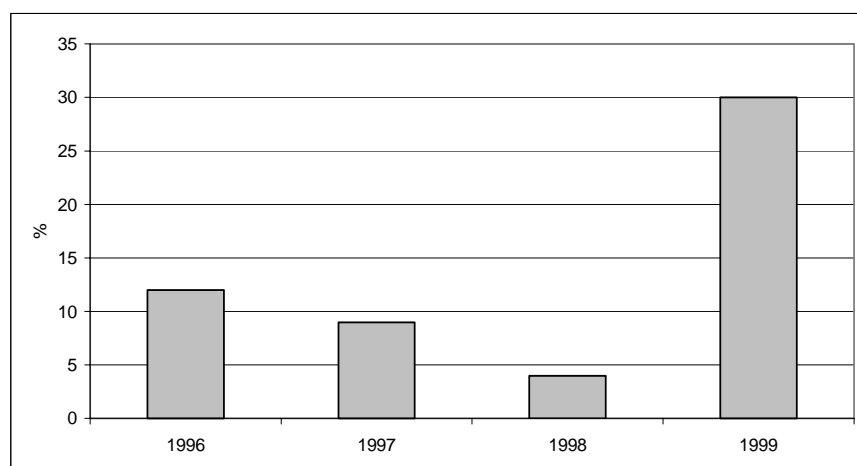
The structure of budgetary expenditure on the regional level is similar to that at the federal level, however regional budgets also include funds envisaged for creation of food reserves (**Table 6.2**). Food stock purchases by the federal government have been reduced to almost nil, while these programs continue on a large-scale at the regional level. They are generally carried out through the mutual clearing or commodity credit schemes, and thus perpetuate the dependence of farmers on this non-transparent and non-market oriented mechanism. There is some evidence that the crisis of 1998 disrupted this mechanism and has forced increased reliance on monetary transactions in some regions. Later on, this practice was revitalized. In the example of Nizhny Novgorod, the share of monetary expenses (compared to off-setting arrangements) in total regional spending for agriculture fell between 1996 and 1998, but increased sharply in 1999 (**Figure 6.2**).

Table 6.2: Structure of Budgetary Support, Federal and Regional (in %)

	Federal budget		Local budgets		Consolidated budget	
	1995	1999	1995	1999	1995	1999
Total budgetary support	100	100	100	100	100	100
Budgetary support to agricultural producers	65	44	43	43	51	43
General services support	35	56	38	36	37	42
Food stocks formation	0	0	18	21	12	15
Total support as per cent of GDP	0,5	0,2	1,0	0,6	1,5	0,8
Total support as per cent of GAO (coefficient of direct support to agricultural producers)	3,8	1,7	7,3	4,3	11,1	6,0

Source: Treasury of Russian Federation data, calculations by Analytical Centre Agrifood Economy, 2000.

Figure 6.2: Nizhny Novgorod Region: the Share of Monetary Component in Budget Expenditure for Agriculture



Source: Regional administration data, calculations by Analytical Centre Agrifood Economy, 2000.

In many regions of the Russian Federation off-budget funds have been created to finance specific programs. In contrast to the regional budgets, these funds are extremely non-transparent, both in their sources and uses of funds. They are often under direct supervision of executive powers, such as the governors or presidents of the republics. For example, in Rostov region in 1994-1999 three off-budget funds were formed: a) the ecological fund; b) the fund of livestock development support; and c) the fund of development of viticulture. During this period, the share of off-budget funds accounted for 20-25% of total oblast expenditures in 3 out of the 6 years in the Rostov region.

To coordinate its activity with the agricultural activity of regional administrators, the MOA enters into agreements with regions on cooperation in the area of the agro-industrial company (AIC) development. Over 20 such agreements had been signed by the fall of 2000. An analysis of several of these agreements indicates that they have rather general terms and they do not impose concrete obligations on both parties design to remove market distortions (regional trade barriers, price ceilings, and others).

Recommendations

The MOA should primarily focus their policies on strategic issues of AIC development. The distribution of budget subsidies should play a secondary role in the MOA's objectives. The MOA's efforts should be directed towards elaboration and implementation of the long-term strategic development program of the sector.

The MOA's policy proposals should be publicly discussed with wide participation of non-governmental organizations, representing both agricultural producers and consumers of foodstuffs.

The MOA should make every effort to assist in the establishment and development of unions of producers, especially producers of agricultural raw materials and commodities, and should actively involve them in the elaboration of agricultural strategy. However, it should be recognized that delegation of quasi-governmental regulatory powers to private sector institutions would inevitably tempt them to act in their private, rather than the public's, interest. These organizations should not be made responsible for promulgating rules and regulations that would be mandatory for all firms operating in these markets, or for furnishing/terminating licenses to firms entering the markets and functioning there. Experience worldwide shows that such a process will inevitably lead to conflicts of interest and use of these powers to diminish competition.

Budget support on both federal and regional levels should be re-balanced to give more support to individual private farmers. Budget support should be administered according to the principles and using the kinds of mechanisms described in section V.B of the Executive Summary of this paper.

More generally, the process of budget support allocations should be driven by economic factors, and not depend on the "power" of various lobby groups that is nothing to do with the efficiency of budget allocations.

Regional policy should not contradict federal policy or, moreover, prevent the establishment of a single country-wide agrifood market in Russia. Regional support budgets should be re-focused. Regional agricultural policy-making and expenditure on support is not necessarily bad; in fact, as a general principle, decisions are best made at the most local level feasible. However, any regional policies should be made by taking into consideration their effects on the integration of the national market of the Russian Federation. In general, this will rule out policies that make local prices of specific commodities artificially higher or lower than those of other regions, since this will inevitably lead to attempts to import or export the goods, and will therefore require the imposition of trade barriers to reinforce the policies. Rather, the policies should focus on support for the rural population by development of rural infrastructure (physical or social), improvement of productive efficiency, or direct income support. The use of off-budget funds should be avoided.

Federal policy should be aimed at suppressing any local initiatives that change relative prices, including price controls and direct or implicit trade barriers. The MOA's agreements with regional administrations should be more concrete in their objectives, with specific targets, and they should also include concrete steps to halt regional economic separatism in the area of food production and distribution.

The concept of government procurement for food funds should be completely rejected both at the regional and federal levels, since such practice discourages the establishment of a market infrastructure. It is especially important to refrain from using commodity credits as a procurement instrument for food reserves.