CHAPTER-II
Reforms and Transition in Russian Agriculture
The Transition in Agriculture

The transition of Russia from a centrally planned to a market economy has been characterised by fundamental institutional restructuring; a slump in production, not only in the agriculture and food sector, but also in the whole economy; and significant changes in consumption patterns. At the regional levels, these economic and political changes have progressed at a very different pace and with varying degrees of political support for the market system.

During this process of transition, Russia is undergoing spectacular socio-economic changes. Thus, the formation of new modes of production in Russia has become apparent. This process was reflected in the socio-economic changes at the local level. The development process, which had led to the current situation, consists also of the sequence of changes in the history of the Soviet Union and Russia.¹

Towards the end of the century, Russia had been riddled with so many social problems, including that of food provision, still unsolved. The growth rate of food products in the 1980s was too low to provide for the national population in full-value and balanced nutrition. In a number of areas, food distribution was rationed. Attempts to improve the situation in the administrative-command system by some shallow adjustments turned out futile in a longer run. The underlying reason was that introduced social-economic innovations such as intra-farm cost-benefit analysis, various types of contract, intensive technologies etc. could not hit the pith of the

problem. They could give only short-lived improvements and that only within specially chosen experimental farms artificially created and enjoining more favourable than elsewhere conditions. After each next campaign everything returned to its circuit. The socialist system repulsed the market elements alien to it. For the situation to be reversed radical reforms were needed.²

The radical economic transformation started in the beginning of the 1990s aimed at constructive changes in the national agrarian sector. It included land reform, reorganisation of collective and state farms - the dominant form of socialist agrarian economy, and the development of autonomous private farms.

The main purpose of the land reform was land redistribution between economic agents, equal development of different forms of economic activity and rational use of lands on Russia’s territory. The Land Reform Law passed in December 1990 repudiated state monopoly on land on the whole national territory and reinstated the institution of private ownership of land.³ The right to private land ownership was fixed in the Constitution of the Russian Federation. But the second (extraordinary) Congress of RF People’s Deputies in the same year 1990 introduced a 10-year suspension of

land sale-purchase. The debates on the liberated sale-purchase of lands still continue even after a decade of reforms.

At the end of December 1991, the Russian Federation Government made provisions about reorganisation of collective and state farms and about the order of their privatisation. These measures aimed at changing the organisational-legal status of collective enterprises, giving workers a right to free choice of a form of entrepreneurship, endowing them with shares of assets and land along with a right to unchecked exit from the collective enterprises, without a need to ask the working collective's permit. Reorganisation was to reach every collective enterprise, profitable or unprofitable. On this basis various partnership, joint-stock companies, agricultural production cooperatives, privately run autonomous farms and their association could be set up. The working collectives were also allowed to maintain if desired the parental form of economic activity. Reorganisation was to be completed by the end of 1992.

The development of privately run autonomous farm sector began in December 1990 with the adoption of Russian Federative Law, "On Autonomous Farms", which laid down the economic, social and legal basis for the organisation and activity of privately-operated farms and their association as a form of free business run on the principles of economic gain.

---

7 R. L. Prosterman et al., p. 176
In the early 1990s, therefore, the legislative basis for the formation in the agrarian sector of a mixed economy and for every rural worker's free choice of land management was laid down.

**Farm Privatisation and Restructuring**

To achieve the objective of establishing market economy in the country, the Russian government passed many laws and decrees to promote ownership of land as part of restructuring the agricultural sector.⁹

The Russian agricultural privatisation programme could be traced back to 1989. After a decade of transition, agriculture seems to be moved only two steps forward and two steps backward as far as the privatisation and farm restructuring are concerned. During the period from 1991 to 1994, most of the collective and state farms were, at least, formally converted to new types of ownership.¹⁰ Simultaneously, a network of private farms, or peasant farms, was created in all regions of the country. The share of the traditional private sector - the private plots of state and collective farm workers and the garden plots of urbanities - significantly increased in the production of potatoes, vegetables and animal products. In 1994, 90 percent of all agricultural land was no longer government owned (not cultivated by the state).¹¹

---

¹⁰ Peter R. Craumer, "Regional Patterns of Agricultural Reform in Russia", *Post-Soviet Geography*, 1994, 35, No. 6, p. 329
¹¹ Ibid., p. 342
At the end of 1991, Yeltsin issued a decree requiring that, by the end of March 1992, all farmland be denationalised, becoming the property of the farmers, and that all farms reorganise and re-charter, completing that process by the end of 1992.\textsuperscript{12}

Subsequently a Council of Ministers resolution required that each collective farm choose one of four options for reorganising itself. The choices were:

1. Liquidation

2. Become a "Subsidiary farm"

3. Form an Association of Peasant Farms

4. Create a new Joint-Property agricultural enterprise

Farms could reorganise to become:\textsuperscript{13}

- a limited liability partnership;

- a "joint-stock" society; or

- an agricultural production cooperative.

In response to a barrage of criticism, in early 1992 the government added to this list, a fifth option, allowing a farm to retain its existing form.\textsuperscript{14}

\textsuperscript{12} Don Van Atta, "Agrarian Reforms in Post-soviet Russia", \textit{Post-Soviet Affairs}, 1994,10 (2) p. 175.
\textsuperscript{13} Ibid., p. 176
\textsuperscript{14} Ibid.
Beginning in late 1990, a set of laws, decrees and resolutions opened the way for land reform in the Russian Federation. This legislation established the right to private ownership of land, restructured sovkhoze (state farms) and kolkhoze (collective farms), and laid the legal basis for the establishment and operation of private family farms. However, in 1995, less than 5 percent of the agricultural land was occupied by family farms (Figure 2a). In 1997, 6 percent of Russia's agricultural land was occupied by the same percent of household.\(^1\)

During 1991 and 1992 the most common source of land for family farms was allocation of land from the raion (District) land fund, administered by the raion land committee. Persons wishing to become family farmers, who might or might not have been previously associated with a collective or state farm, were allocated agricultural land from the raion land fund.\(^1\) A small portion of such land, equal to 'raion norm' was allocated to the family farmer in ownership, while the remainder was allocated either in lifetime inheritable proprietorship or in leasehold for nominal rent payment and for terms that vary from rayon to rayon.\(^1\)


\(^1\) Peter R. Craemer, op. cit, p. 334; Stephen K. Wegren, "Rural Reform and Political Culture in Russia", *Europe Asia Studies*, Vol. 46, No. 2, 1994, pp. 223-225

\(^1\) Ibid., p. 1386
In 1996, agriculture employed 12 percent of the economically active population. In 1994, women made up 51 percent of the total labour force. In 1994, 38 percent of the total labour force was engaged in agriculture, down from 42 percent in 1980. About 11 percent of the total female labour force and 18 percent of the total male labour force was engaged in agriculture. In 1993, agriculture accounted for 16 percent of GDP. Inflation reached 880 percent in 1993, 320 percent in 1994 and 150 percent in 1995.¹⁸

Decollectivisation and Private Farm Development

Decollectivisation - the process of converting state and collective farms into either private (individual or corporate) farms or genuine producers' cooperatives has taken various forms in the former socialist countries.\(^{19}\) With the introduction of market economy the new farms are going through a difficult process of transformation.

In Russia, the reorganisation of collective and state farms had been practically completed by the beginning of 1994 when 95 percent of collective enterprises were re-registered.\(^{20}\) In the result of this reorganisation, 66 percent of collective enterprises changed their organisational-legal status, and 34 percent exercised their right to retain their parental form.\(^{21}\) After reorganisation there appeared 0.3 thousand open joint-stock companies, 11.5 thousand partnerships (of all types), 1.9 thousand agricultural cooperative, 0.4 thousand sideline farms of industrial and other institutions, 0.9 thousand associations of autonomous farms and 2.3 thousand of other forms. The former status was retained by 3.6 thousand state farms and 6.0 thousand collective farms. By forms of ownership, agricultural enterprises were distributed in the following way: state ownership 26.6 percent, municipal ownership 1.5 percent, private ownership 66.8 percent, mixed ownership 5.1 percent.\(^{22}\)

Therefore, the reorganisation of collective enterprises was the first step towards the creation of a mixed agrarian economy based on equality of all forms of ownership and

\(^{20}\) Peter R. Craumer, op. cit., p. 342
\(^{21}\) Ibid.
land management. Unfortunately, no positive results, i.e. better efficiency and higher output, were achieved out of this reorganisation. The agricultural output and the share of agricultural enterprises in it were on the steady decline. While in 1990, the agricultural enterprises accounted for 73.7 percent in the total output, in 1999, they accounted for only 40.3 percent. The positive changes somehow occurred in 1997 and 1999 (Table 2.1 and Figure 2a)

Table 2.1
Indexes of agricultural outputs of Russia, categories of farms
(In comparable prices, % to the previous year)

<table>
<thead>
<tr>
<th>Years</th>
<th>All Categories Of Farms</th>
<th>Including</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Collective Enterprises</td>
</tr>
<tr>
<td>1991</td>
<td>95.5</td>
<td>91.0</td>
</tr>
<tr>
<td>1992</td>
<td>90.6</td>
<td>82.7</td>
</tr>
<tr>
<td>1993</td>
<td>95.6</td>
<td>90.9</td>
</tr>
<tr>
<td>1994</td>
<td>88.0</td>
<td>83.9</td>
</tr>
<tr>
<td>1995</td>
<td>92.0</td>
<td>84.6</td>
</tr>
<tr>
<td>1996</td>
<td>94.9</td>
<td>89.9</td>
</tr>
<tr>
<td>1997</td>
<td>101.5</td>
<td>102.4</td>
</tr>
<tr>
<td>1998</td>
<td>87.5</td>
<td>81.2</td>
</tr>
<tr>
<td>1999</td>
<td>104.1</td>
<td>105.4</td>
</tr>
</tbody>
</table>


The number of livestock and their productivity in this category of agricultural enterprise continued to decrease. Most of them were in a critical economical position.
While in the end of 1991 they had 43 percent profitability, then in 1995 it was minus 2 percent, and in 1998 minus 28 percent.\textsuperscript{23}

V. Khlystun, the ex-Minister of Agriculture and Food of the Russian Federation, explains this situation in the Russian agriculture by constantly increasing disparity between the price on agricultural products and those on material-technical resources used for their production, extremely low state subsidies, low purchase prices, delays in settlement of the accounts for the sold product, monopoly of processing, procurement and service-supplying enterprises and organisations.\textsuperscript{24}

Figure 2b.
\textbf{Percentage of different farm categories in agricultural output of Russia in 1970-1999 (in prices of that time)}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2b.png}
\caption{Percentage of different farm categories in agricultural output of Russia in 1970-1999 (in prices of that time)}
\end{figure}

Source: \textit{Russian Statistical Yearbook/The RF Goskomstat, M., 2000, p. 362}

But in each Russian province, there could be found some agricultural enterprise, which were successfully functioning under the current unfavourable conditions.\textsuperscript{25} A

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{23} \textit{Russian Statistical Yearbook./The Russian Federation Goskomstat, M., 1999, p. 351.}
\item \textsuperscript{24} Khlystun, V. "To Stabilise the Operation of the Russian Agro-Industrial Complex", \textit{AIC: Economics Management}, 1997, No. 4, p. 7.
\item \textsuperscript{25} Carol Scott Leonard and Eugenia Serova, op. cit., p. 381.
\end{enumerate}
\end{footnotesize}
noticeable fact in the activity of such farms was that they had managed to promptly adjust themselves to the new economic conditions: studied the market situation, identified the most profitable channels to sell their products, restructured their production according to market requirements, successfully developed processing of agricultural products, sell them through a network of their own stores, retail-markets or trusted wholesale agents at better prices.\(^{26}\)

The growth of part-time farms and their share in the total agricultural production since 1992 has been increasing consistently (see Figure 2b). At the same time, the former collective and state farms showed a decline in production since 1990s throughout the transition. Though the status and names of the state and collective farms have been changed, almost all of them have been operating on the same scale as in the USSR.\(^{27}\)

The creation of autonomous farms was very slow and became stagnant because of unfavourable conditions both legal and institutional and inadequate market structures. The autonomous farms somehow increased in 1993 but in the next year declined to the previous level\(^ {28}\) and remained stagnant throughout the transition\(^ {29}\) (see appendices for Fig. 2c & 2d).

Some of these farms became founders of large commercial structures, had set up modern agro-industrial companies. They could become centres of scientific-
technological progress in the countryside to show other farms how to work under market conditions. But such farms in Russia, by expert estimates, were no more than 5-7 percent.\textsuperscript{30}

The Development of Privately-run Autonomous Farms

Since the adoption of the Russian Federation Law on Autonomous Farms and reorganisation of collective and state farms,\textsuperscript{31} the Russian peasants had acquired a real possibility to become independent economic agents. The dynamics of the number of autonomous farms in Russia shows that at the beginning of the reforms the country did possess a social base for the development of the private sector in the agrarian economy.

After an initial slow start, with only 4433 farms by the beginning of 1991, the number of peasant farms in Russia increased rapidly to 49,000 in January 1992, 182,878 in January 1993, 269,930 by January 1994, and 277,300 in April 1994.\textsuperscript{32} There is a variation among authors due to various data resources over the number of private farms, though to a less degree.\textsuperscript{33}

Over 1991-2000, the number of privately run farms grew up to 261 thousands. But in 1994 the rates of their growth began to decrease. And the process of their ruins and

\textsuperscript{30} D. Elman, "The Institutionalisation of Private Farm Development in Russia", \textit{Economic Transition Review}, Vol. 1, No. 4, 2000, p. 4
\textsuperscript{32} Peter R. Craumer, op. cit., p. 339
surrenders was increasing. Since 1997 the number of surrenders had for the first time exceeded the number of the newly created farms (see appendices for figure 2d & 2e).

The studies conducted in the national regions show that the main causes for instability of autonomous farms in Russia were extremely high taxes, exorbitant prices for agricultural equipments, fuels and other resources, violation of owners’ rights, low subsidies from the state, allotment of lands of low quality and distance from the inner place, lack of roads, and communications.

We understand that part of failures must be attributed to subjective causes, to Russian peasants, lack of experience in independent economic activity, lack of knowledge, unpreparedness to work under economic and social risk.

Agricultural lands in autonomous farms occupy 15.5 ha. (94 percent of allotted lands), including 10.4 m ha. of arable lands (72 percent of allotted lands). Autonomous farms accounted for 5.3 percent of agricultural lands and 6.3 percent of arable lands. Over a half of autonomous farms had 20 ha or less and the fifth of them 21-50 ha. apiece.

The proportion of autonomous farms in the total agricultural output was steadily low and did not exceed 2-3 percent (see appendices for fig. 2b & Fig. 2c).

---

34 Carol Scott Leonard and Eugenia Serova, op. cit., p. 372
36 Anna V. Tyagunenko, ibid.
37 Russian Statistical Yearbook./The RF Goskomstat. M., 2000, p. 361
Back in 1991, when analysing the necessary and real conditions for the development of autonomous farms in the country, a conclusion is deduced that blanket de-collectivization was too rash.\textsuperscript{38} Considering the state of public mind, level of industrial potential, condition of legislative base, features of the social-political situation in the country and taking into account that for transition to a market economy long time was needed. We came to the conclusion that in the foreseeable future, the autonomous farms could not become a dominant form of agricultural production in Russian countryside. With confidence, it was possible to speak only about the existing preconditions for the establishment of a mixed agrarian economy, where autonomous farms would be one of its sectors\textsuperscript{[pt]}. These preconditions were fulfilled.

Development of Part-time Farming (Household) of Rural People

The transition from “monopoly of the socialist sector” to diversified private ownership is a difficult process. It is filled with uncertainty and unknowns, which stem largely from lack of experience and lack of familiarity with a private economy. Yet socialist agriculture was more heterogeneous than is commonly thought, land was totally nationalised in the USSR\textsuperscript{39}, and agricultural production throughout the region actually was a combination of collective, state, and individual farming. Individual production, however, was not represented by a traditional private farming sector: it survived in the

\textsuperscript{38} Carol Scott Leonard and Eugenia Serova, op. cit., p. 370.
\textsuperscript{39} Michael T. Florinsky, Russia, A Short History, (Second Edition), London: Collier- Macmillan Ltd., 1969, p. 451
form of subsidiary household plots, where member and employees of socialised farms, as well as some urban residents engaged in “part-time” farming on land allotted to them by collective and state farms.40

Part-time farming (PTF) is a specific segment of the agrarian economy based on the use of resources and labour potential of rural families. Part-time farm as a special form of production under socialism had appeared in the end of the 1920s in the process of socialisation of individual peasant farms and was based on the state ownership of means of production, including land, and on personal (without hired) labour of plot’s owners and their family members.41 In 1991, the household plots used in part-time farming were under the Constitution of the Russian Federation passed over to the citizens’ ownership. As a rule, the part-time farm is a sphere of secondary employment existing along with the primary employment in the public sector of agriculture.

However, the current predominance of privately produced output in the sector is taken to reflect a high degree of privatisation of land and the emergence of a private peasant farm sector. What is ignored is that before the break-up of the Soviet Union an estimated 30 percent of agricultural output (Gross Value Added) was already produced on household plots and dacha gardens, which represented not more than 2 percent of the land.

This was made possible through a symbiotic (and even parasitic) relationship between private household plots and the collective or state farms, which had increased somewhat in size, but remained small. The peasant farms - to clarify the difference - are registered as independent enterprises (autonomous farms). The land comes from former collective and state farms or established land reserves. The owners can be former workers or urban dwellers. Peasant farms are generally much larger (10-20 hectares on average or more).42

In the process of agrarian transformation and partial disintegration of collective farming, protracted and complicated character of the establishment of new economic farms in the agro-industrial complex, the role of part-time farming as the most flexible, steady enough and self-turning organisational-legal form in the agricultural production had increased. The share of privately produced output in total agricultural gross value added is much higher than the large-scale collective farms. The share of private farms and household plots in agricultural production has been increasing continuously, from 22 percent in 1989 to 55 percent in 1998 (31 percent in 1991, 33 percent in 1992, 43 percent in 1993, 45 percent in 1994, 48 percent in 1995, 49 percent in 1996, 50 percent in 1997).43

---

43 Max Spoor & Oane Visser, ibid., p. 890; Grigory Ioffe & Tatayana Nefedova, ibid., p. 389 & 399; Carol Scott Leonard and Eugenia Serova, op. cit., p. 383
While in the public sector there had been a notable decline of agricultural output, in the households' part-time farms, on the contrary it was increasing to make up in 1999 57 percent of the total national output.

According to statistics, in 1998, 16.6m families in Russia had household plots with total area of 6.4m ha., or 0.40 ha. area per household. In addition, 14.5 m households had land plots in collective gardens with total area of 1.3m ha., or 0.09 ha. per household. The collective kitchen gardens with total area of 0.45m ha. were used by 5.1m households; or 8.7 hundredths per household. And 6.1m households hold large cattle, 4.1m had pigs, 3.0m households held ship and goats. As of 1 January 2000, in the households held 10.1m large cattle head, 7.8m pigs and 9.1m sheep and goats combined.44

In 1994, 1997 and 1998, however, there was stabilisation or even reduction in the output of agricultural products in part-time farms (Table 2.1). The emergent trend to a certain decline in the households' output had several reasons. One was the consequence of the destruction of the production potential of collective enterprises the resources of which (fodder, seeds, agricultural equipment, transport vehicles etc.) were given to part-time farms on soft conditions. The second point was that the financial possibilities of a rural family had substantially diminished in the result of lowered standard of living, including depreciation of savings. Point there was that the labour potential of a rural family had practically been exhausted. The analysis of the time

44 Russia in Figures/RF Goskomstat (Goskomstat Rossii), 2000, pp. 202-211

83
budgets of rural population had shown that many families were running their part-time farms on the limit of their physical power.

At present, legislative and economic prerequisites had been created for the development of part-time farm as an equal form of agricultural production and for its possible transformation into an autonomous farm.

For one thing, the legislation had fixed the equality of all forms of agricultural production recognizing part-time farms of households as a full-right form of economy in the agrarian sector. And all work collectives and individuals were granted the right to choose a preferable form of production in accordance with their wishes, opportunities and needs.

Second, all constraints on the number of animals held by a household were removed.

Third, according to the current legislation, household land plots could be enhanced up to one hectare by lands that were in management of local councils. Apart from this, rural inhabitants who were granted land shares (workers of agriculture, pensioners and some categories of workers of the social sphere) were entitled to use them for extension of their part-time farms.

And, lastly, according to the operative RF Constitution, land and other means of production could be privately owned.⁴⁵

⁴⁵ Carol Scott Leonard and Eugenia Serova, op. cit., p. 370
Under these conditions rural households had a choice: either to run their part-time farms in cooperation with other economic agents of agro-industrial business and using aid of collective enterprises, or to transform PTF into autonomous farms. The base for transformation of some PTFs into autonomous farms could be large PTF of a commodity type to that about a fourth of rural families were oriented. But it was impossible to transform PTF to autonomous farms because PTFs could not do without aid from collective farms. The latter, even under the difficult economic conditions, continued to give their workers different kind of aid in the form of young animals, seeds, agricultural equipment, and transport vehicles on privileged conditions or free of charge.

The prospects of PTF transformation into autonomous farms assessed by experts were pessimistic. In the present atmosphere of the agrarian scenario in Russia, it could be viewed as a transition to the autonomous private farm from the part-time farms, which has become a complex process. The part time farms (PTF) could be successfully developed only in cooperation with collective enterprise, as they maintain the same symbiotic relationship among themselves. But the development of autonomous farms demand a number of factors, like legal, institutional, financial and other basic infrastructures for taking the risk of being independent enterprises. The basic support

---

infrastructure in Russia for the development of autonomous farms was not adequate to cater to the risks involved as a private autonomous farmer.

In our view, the perpetuation of PTFs in their former type was promoted by the existing order of taxation, when household plots were practically exempted from income tax. Because the land tax paid by PTF, due to its small amount, did not affect their profitability which was further substantially increased through use (free or on privileged conditions) of the resources of collective enterprise. Such a position of PTF as a specific form of non-official agrarian economy was understood by most of rural population and was reflected in their behavior. Rural people understood that the transformation of PTF from non-formal sector of the economy to formal one would involve a very hard tax pressure and cease of aid from collective enterprises.

The role of PTF in the process of the establishment of private sector in the agrarian economy was contradictory. Being developed in parallel with and, substantially, at the expense of the resources and aid from collective enterprises, it as if perpetuates, preserves the old system of economic relations. But, on the other hand, it helps the rural people to acquire skills of frugal and efficient management of land and develops in them social qualities required in a market economy such as business-like character, entrepreneurship, and independence. The characteristic features of PTF operators and their families were freedom of activity, independence in economic decision-making and full economic responsibility for the results of their work. According to the official publications of Goskomstat, the share of subsidiary farming (another name for PTF) in Russia's gross agricultural output has experienced a steady rise in from 26 percent in
1990 to as much as 57 percent in 1998. In other words, private part-time plots help shape economic agents of a new type.

Although at present, most of rural inhabitants did not dare to undertake operation of an autonomous farm, current realities (decline of production in the public sector, very low wages in agriculture, irregular payments, increasing unemployment) enforced them to expand the scales and commodity quality of their part-time farms, which, by their scales and functions, were approaching the autonomous farms.

The latent processes going on in the contemporary Russian countryside had remained so far beyond the comprehension of the public and so need to be thoroughly researched. It was this process, which could mould the trends and characters of changes in the Russian countryside in the near and mid-run.

On balance, it could note the following. If judged by formal indicators, the planned transformations had achieved a certain purpose i.e. the number of collective and state farms was reduced, signs of mixed economy and divers ownership forms have appeared. But what was the merit of those transformations and what was their social price?

Here are some illustrations: By estimates of the Russian Agricultural Academy, in the result of the transformations conducted in the countryside, Russia was thrown back by large cattle head - over a quarter of century; by animal productivity 25-30 years; by

---

technical equipment - almost half century. Over the period of the reforms implemented, the living level of urban and rural population had sharply declined, including consumption of staple foods. As compared to 1985, per capita meat and meat products consumption fell 15 percent, milk and milk products, egg - about 20 percent, sugar and vegetables - over 30 percent, fish - about 60 percent. Increase was observed only in consumption of potatoes and baked products.

Paradoxes of Agrarian Reform

The dynamics in the developments of the three segments of the agrarian economy clearly shows the first paradox of the agrarian reform, which is the expansion of the small commodity production. Contrary to the reformers’ intentions, the leading sectors of agricultural production were now not autonomous farms or joint-stock companies but part-time farms of rural dwellers. They had no means of mechanisation, partly because of tight market of small equipment suitable for use on private plots but mostly because of lack of resources for their purchase. The doubled production output and commerciality of this category of farms was only due to higher labour inputs made by their owners and members of their families. But the expansion of small commodity

---

53 A. Zeldner, op. cit., p. 81.
production had many shortcomings - the economy becomes naturalized, return to barter, the technological level of production declines, requirements of agrarian technology were not met, environmental problems appeared.  

The *second paradox* in the current agrarian transformation was inefficiency of agrarian economy “capitalisation”. The policy makers had to admit that in place of non-efficient state sector of the economy, they got non-efficient private sector after reformation. It is viewed that the underlying cause was a formal character of the transformations. The organisation-legal status of collective and state farms was changed but in essence the economic relations remained the same.  

The position of workers in the system of relations of production practically had not changed.  

As most workers had never felt any difference between their previous state as employed workers and the present one as co-owners, no distinct change had occurred in their work motivation or behavioural pattern. In the Russian Federation President’s message to the Federal Assembly in 1997, it was noted that “the established mutual rights and responsibilities between owners (stockholders) and managers (directors) were not observed. Directors often merely pushed the stockholders, even major ones, aside from making important decisions in matters that were exactly in owners’ competence”. According to this, protection of stockholders'  

---

55 Max Spoor & Oane Visser, op. cit., p. 887.  
56 Carol Scott Leonard and Eugenia Serova, op. cit., p. 367.  
57 Eu. Serova, op. cit., p. 11.  
rights, clear definition of rights and responsibilities of stockholders and managers, and perfection of the mechanism of corporate management were determined as priority tasks for the Government on which the course of the reform in 1997 depended.

The economic mechanism by which peasants could exercise their rights of ownership to their shares of land and other assets was not yet in operation. As was found in a survey of the Novosibirsk oblast, over 80 percent of the respondents had had no dividends on their shares of asset and land, which they had handed over to agricultural enterprises for use. Most enterprises were in a pinch, unable to pay dividends to their workers. This situation was typical of other regions of the country too.59

The third paradox of reforms was that instead of developing in people market mentality and behaviour in the sphere of economy they, in fact, were destroying their work motivation. And the most vivid of these consequences were seen just in the agrarian sphere with its gap between workers' orientation at higher earnings and the depleting possibilities of agricultural enterprises to reward their contribution. As things stood today, wages of agricultural workers that were the national lowest, being less than 40 percent of the national average, were below subsistence level and systematically paid several and more months back. Apart from that, the dependence of wage on the work results and worker's qualification had been destroyed.60

One third of rural workers said that the size of their remuneration was not contingent on their enterprise efficiency. Employment in the public sector had now ceased to be a

60 Ibid., p. 37.
primary source of incomes for rural workers.\textsuperscript{61} According to the data from the 1997 survey (N=553) of the rural population, only 38 percent of respondents said that their wage was the primary source of livelihood (monetary and natural), 42 percent said it was their part-time farm.\textsuperscript{62}

Apart from this, possibilities of agricultural enterprises to solve social problems of the workers by own resources and means had drastically decreased. Before reformation, a job-contingent principle in the distribution of many social satisfactions prevailed. A worker could get from his enterprise free housing, place in pre-school institution for children, medical treatment on health resorts and other social benefits. After recognition, the collective and state farms were allowed to pass the establishments of social and cultural services over to the management of local governments which, in their turn, lacked sufficient financial resources and appropriate material-technological base. This led to substantial worsening of social services provision in the countryside.

These processes were at the core of a sharply decreased motivation to professional, high-quality and effective work as well as of the drastic drop of the prestige of work in the public sector, especially so among rural youth. According to the 1997 survey, 31.9 percent of rural inhabitants would like not to work at all, if the unemployment relief could provide for a fairly well-to-do living (replies of the type “yes”, “rather” “yes” than “no”). However only three years back (in 1993, N=525) such answers to this item


were given by no more than 10.6 percent of rural respondents. This was a very alarming symptom.\textsuperscript{63}

The destruction of the effective system of work remuneration had been also reflected on the attitudes in the sphere of work held by different social groups. Thus, over a half (65.8 percent) of the respondents preferred to have albeit small but guaranteed income. Only 28.9 percent of the surveyed were not averted from high risk in exchange for high earnings. This situation made people on the one hand, gradually lose their self-confidence, and get used to state paternalism on the other.

In other words, the emerging institutional space and the operating economic mechanism work at distorting the system of individual values, decreasing or bringing to null the instrumental value of work in the public sector of agrarian production, promoting more social infantilism than developing market behaviour and mentality, stripping the transformations in the agrarian sectors of its social base and hindering the process of its modernisation.\textsuperscript{64}

And, finally, the fourth paradox was that the social result of all transformations in the agrarian sector, was an utter poverty of the rural population, degradation of the rural social sphere caused, to a high degree by that it was passed from the books of the agricultural enterprises to the books of local councils. The latter had neither financial nor material technical resources for maintaining and development of social-consumer facilities.\textsuperscript{65}

\textsuperscript{63} Ibid., pp. 7-11
\textsuperscript{64} E. Serova, “Public Opinion on Russian Agrarian Reform”, \textit{Problem of Economic Transition}, Vol. 44, No. 5, September 2001, pp. 51-52
\textsuperscript{65} See: AIF: Economics, Management, No. 5, 2000, p. 37.
The social price that had to be paid for the reforms had led to people's disappointment and their loss of confidence in their wisdom. The consequences were increasing nostalgia for the past, for former life, for socialism. At the same time the transition has created a sense of competition and market orientation among the newly created private farmers.

The Impact of Transition on Agriculture

(The Performance of the Agricultural Sector in the 1990s)

In 1991, the Russian government considered the food situation in the country catastrophic, and Russian President Boris Yeltsin told the opening session of the 5th Congress of Peoples Deputies in October 1991, the country was faced with the task of creating “fundamentally new situations in the agrarian sector." But after a decade after the start of the reforms, the dramatic free fall of the economy of the former Soviet Union on the whole seems to have come to an end. The same could be concluded for the production fall in the agricultural sector. In 1999 both GDP and gross agricultural output for the former Soviet Union countries on average slightly increased, by 3 percent and 2 percent respectively.

Since the beginning of transition, Russia's almost all subjects of agriculture has gone through a declining trend. The share of agriculture in the Gross Domestic Production (GDP) of Russia has substantially declined from 13.7 percent in 1991 to only 6.5

---

66 Carol Scott Leonard and Eugenia Serova, op. cit., p. 64.
percent in 1997, with little variations in 1995 and 1996. Over the period from 1990 and 1998 the share of GDP declined from 15.3 percent to 6.71 percent. From 1990 to 1996, total agricultural production fell by 38 percent, with the sector's share in GDP dropping from 22 to 12 percent (according to official figures, with shares in GDP measured in current prices). In 1998, the proportionate share of agriculture alone in GDP was about 15 percent in 1991 prices. This trend is primarily due to the over all macro-economic adjustments in the country and disintegration of the old institutions without replacement.

Table 2.2
Share of Agriculture in the Economy (Russia)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>13.7</td>
<td>7.2</td>
<td>8.1</td>
<td>7.0</td>
<td>8.9</td>
<td>8.8</td>
<td>6.5*</td>
</tr>
<tr>
<td>Employment</td>
<td>13.2</td>
<td>14.0</td>
<td>14.3</td>
<td>14.5</td>
<td>15.0</td>
<td>15.0</td>
<td>No Data</td>
</tr>
<tr>
<td>Fixed Capital</td>
<td>11.7</td>
<td>16.1</td>
<td>16.9</td>
<td>13.6</td>
<td>12.8</td>
<td>No Data</td>
<td>No Data</td>
</tr>
<tr>
<td>Investments</td>
<td>17.8</td>
<td>10.8</td>
<td>7.9</td>
<td>5.0</td>
<td>3.5</td>
<td>3.3</td>
<td>No Data</td>
</tr>
<tr>
<td>Import**</td>
<td>No Data</td>
<td>No Data</td>
<td>No Data</td>
<td>27.7</td>
<td>27.9</td>
<td>24</td>
<td>26.3</td>
</tr>
<tr>
<td>Export**</td>
<td>No Data</td>
<td>No Data</td>
<td>No Data</td>
<td>2.2</td>
<td>1.7</td>
<td>2</td>
<td>1.8</td>
</tr>
</tbody>
</table>

* Estimate of the Ministry of Agriculture
** Share of agricultural products related to total volume of imports and exports.


---

70 Carol Scott Leonard and Eugenia Serova, op. cit, p. 368.
The state of employment scenario has changed in the Russian countryside. The agricultural sector accommodated 13.2 percent of the total working population in Russia, in 1991, but in 1997 it increased to almost 15 percent or more (see Table 2.2). This increase in employment in the agricultural sector, in spite of the disintegration of the collective and state farm sector was basically due to the lack of employment in the other sectors of the economy. Most of the people failed cope up with the new economic situation in Russia and were forced to look back to subsistence agriculture. Though, Russian agriculture has got all potentials to absorb this much of population comfortably, but the present situation has got hardly any capacity to provide a meaningful employment opportunity. Thus, this was a kind of disguised unemployment that has been growing in Russia since the reforms.

The proportion of the total working population in agriculture grew from 13 percent to about 14 percent, but the rise was the result of larger falls in employment elsewhere in the economy. The fall in the agriculture's economic importance and its higher share in employment indicates a marked drop in output per worker since 1991 and suggests growing hidden unemployment in rural areas. Indeed in absolute terms employed in agriculture fell by 7 percent between 1990 and 1997, and the volume of agricultural production by 36 percent over the same period.73

Fixed capital formation has increased in agriculture, since 1991. Initially, at the beginning of the reforms was at the lowest. The value of fixed capital was only 11.7

percent of the total fixed capital in the economy. This immediately increased to 16.1 and 16.9 in 1992 and 1993 respectively, and from 1993 onwards, it has shown a declining trend.

The most severe impact of transition is on the overall investment in agriculture. With the introduction of market economy, disintegration of the old system and withdrawal of substantial government support, non-availability of a viable credit system, curtailment of subsidies and Decollectivisation of agriculture have caused the investment decline to a record low of only 3.3 percent in 1996. This figure was 17.8 percent in 1991, which continuously declined with no signs of any increase (see Table 2.2). Total investments in agriculture from all sources of financing have declined sevenfold as compared to 1991, while it has declined only fourfold in the national economy as a whole. According to A. Khorokhorin, investments in the Agro-Industrial Complex (AIC) declined more than tenfold in 1991-97. The proportionate share of investments directed to the agricultural sector declined from 31 percent to 7 percent in 1997.

If we look at the index number of agricultural production from 1992 to 1997 with the base year of (1989-1991), 1996 and 1997 seem to be the years that have shown a positive trend. For almost all major crops and for all commodities (in an average) between 1992 and 1996 have declined throughout (see Table 2.3). The per capita index of food production has declined from 139 in 1992 to 55 in 1995 and rose to 62

75 Iu. Zakharov, op. cit., p. 63.
and 87 simultaneously in 1996 and 1997 respectively. This fall in the index number of agricultural production is due to lack of investment in the agricultural sector, increase in population in the sector, and lack of inputs for production.

Table 2.3
Index Number of agricultural production
(1989-1991=100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Commodities</td>
<td>138</td>
<td>130</td>
<td>114</td>
<td>102</td>
<td>106</td>
<td>109</td>
</tr>
<tr>
<td>Food</td>
<td>102</td>
<td>94</td>
<td>73</td>
<td>55</td>
<td>62</td>
<td>87</td>
</tr>
<tr>
<td>Cereal</td>
<td>139</td>
<td>132</td>
<td>115</td>
<td>103</td>
<td>108</td>
<td>112</td>
</tr>
<tr>
<td>Per Capita (food production)</td>
<td>102</td>
<td>94</td>
<td>73</td>
<td>55</td>
<td>62</td>
<td>87</td>
</tr>
<tr>
<td>Per Capita (cereal production)</td>
<td>139</td>
<td>132</td>
<td>115</td>
<td>103</td>
<td>108</td>
<td>112</td>
</tr>
</tbody>
</table>


Grain Production

The key to Russian agriculture is grain production. Because no excess grain is produced, a lower than usual grain harvest results in less feed available for livestock, as cereal grains such as wheat, rye and barley must divert to human use. While Russia is the largest country in the world, spanning 11 time zones, it has a lower population (147 million people) than does the United States (272 million people). So why does such a large country have problems feeding itself? Because only 8 percent of its total 1.7 billion hectares are arable - 136 million hectares. Comparatively, the total land

---


area of the United States is 920 million hectares, with 19 percent in grain production, or 180 million hectares.

The climatic and other natural factors limit agriculture to a considerable extent in Russia. Because of climatic conditions, yields per acre are greatly reduced.\(^7\) The transition has also caused a decrease in the yield performance in Russia. Almost all the crops showed a declining trend throughout the transition. But the fact lies with the large-scale farming, which faced shortage of various factors of production. Due to low use of inputs, and investment and other organisational factors, the yield of crops per hectare has decreased in Russia (see Table 2.4). Except wheat, cereal, and coarse grains, which showed a rise in the year 1996, yields of all other major crops have declined.\(^7\) In fact, the 1995 and 1998 wheat crops in Russia were disastrous - the worst in 30 years. Drought problems were primarily responsible for this, although in recent years, fertiliser application has been cut back due to funding problems.\(^8\)

<table>
<thead>
<tr>
<th>Table 2.4</th>
<th>Yields of Various Crops (tons per ha.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>1.74</td>
</tr>
<tr>
<td>Wheat</td>
<td>1.90</td>
</tr>
<tr>
<td>Coarse Grains</td>
<td>1.62</td>
</tr>
<tr>
<td>Maize</td>
<td>2.64</td>
</tr>
<tr>
<td>Oil Crops</td>
<td>339</td>
</tr>
<tr>
<td>Rape and Sunflower Seed</td>
<td>1.08</td>
</tr>
<tr>
<td>Sugar beet</td>
<td>17.8</td>
</tr>
</tbody>
</table>


\(^7\) Carol Scott Leonard and Eugenia Serova, op. cit., p. 362 and 368.
\(^7\) Current Statistical Survey, 10, Moscow: 1995, p. 27, cited in Carol Scott Leonard and Eugenia Serova, op. cit., p. 368
\(^8\) Ibid., p. 9.
If we evaluate the changes in Russian agriculture since 1991 by the various changes occurred during the transformation, agriculture seems to be the most unreformed sector in the economy. A major impact of the transition has been a decline in agricultural production (See Table 2.5).

Table 2.5
Production of Principal Crops (thousand metric tons)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>1072</td>
<td>1146</td>
<td>986</td>
<td>896</td>
<td>733</td>
<td>754</td>
<td>688</td>
<td>523</td>
<td>462</td>
<td>389</td>
</tr>
<tr>
<td>Wheat</td>
<td>36868</td>
<td>39864</td>
<td>44004</td>
<td>49596</td>
<td>38899</td>
<td>46167</td>
<td>43547</td>
<td>32129</td>
<td>30119</td>
<td>34917</td>
</tr>
<tr>
<td>Maize</td>
<td>3844</td>
<td>3814</td>
<td>4663</td>
<td>2451</td>
<td>1949</td>
<td>2135</td>
<td>2441</td>
<td>892</td>
<td>1739</td>
<td>1088</td>
</tr>
<tr>
<td>Barley</td>
<td>26101</td>
<td>19418</td>
<td>22201</td>
<td>27235</td>
<td>22174</td>
<td>26989</td>
<td>26843</td>
<td>27054</td>
<td>15786</td>
<td>15933</td>
</tr>
<tr>
<td>Millet</td>
<td>2385</td>
<td>1754</td>
<td>2846</td>
<td>1946</td>
<td>1041</td>
<td>1535</td>
<td>1128</td>
<td>482</td>
<td>488</td>
<td>446</td>
</tr>
<tr>
<td>Oats</td>
<td>12289</td>
<td>10604</td>
<td>11977</td>
<td>12326</td>
<td>10372</td>
<td>11241</td>
<td>11556</td>
<td>10757</td>
<td>8562</td>
<td>8346</td>
</tr>
<tr>
<td>Ryca</td>
<td>11079</td>
<td>12530</td>
<td>12593</td>
<td>16431</td>
<td>10639</td>
<td>13887</td>
<td>9166</td>
<td>5989</td>
<td>4098</td>
<td>5934</td>
</tr>
<tr>
<td>Potatoes</td>
<td>38028</td>
<td>33692</td>
<td>33760</td>
<td>30848</td>
<td>34329</td>
<td>38330</td>
<td>37650</td>
<td>33828</td>
<td>39909</td>
<td>38652</td>
</tr>
<tr>
<td>Sugarbeets</td>
<td>34156</td>
<td>32825</td>
<td>37378</td>
<td>32327</td>
<td>24280</td>
<td>25548</td>
<td>25468</td>
<td>13946</td>
<td>19072</td>
<td>16132</td>
</tr>
<tr>
<td>Soybeans</td>
<td>541</td>
<td>675</td>
<td>738</td>
<td>717</td>
<td>622</td>
<td>505</td>
<td>497</td>
<td>422</td>
<td>290</td>
<td>282</td>
</tr>
<tr>
<td>Tobacco Leaves</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grapes</td>
<td>772</td>
<td>593</td>
<td>673</td>
<td>612</td>
<td>543</td>
<td>529</td>
<td>467</td>
<td>311</td>
<td>301</td>
<td>346</td>
</tr>
</tbody>
</table>

Since 1990, Russian agricultural production has declined continuously and was only 64 percent of the 1990 level.\textsuperscript{81} After having stabilised output in 1997, the prospects for Russian agriculture in the next year were rather gloomy owing to the economic crisis and severe crop failure in 1998. An important reason for the poor performance of agriculture during the previous years had been the disintegration of the economic areas not only of the former Soviet Union but even of the Russian Federation itself. This process of disintegration has affected agriculture severely.

The wheat production which was 49596 thousand metric tons declined continuously to 30119, in 1995, then showed an increasing trend in 1996 and stabilised in 1997 at 44258 (see Table 2.5). In the next year, due to over all economic crisis and unfavourable conditions in agriculture and drought in 37 regions of Russia,\textsuperscript{82} the production of wheat declined to 27,012 thousand metric tons a record low during the past decade, but in 1999 it slightly increased to 30,995 thousand metric tons.\textsuperscript{83} The production of rice also drastically declined from 1072 in 1987 to 328 in 1997, though this also showed a positive trend in 1998 and 1999 from 413 and 444 thousand metric tons respectively.\textsuperscript{84}

In Table 2.5, it is clearly evident that the overall grain production has substantially declined since the beginning of the transition. However, this trend was slightly compensated in 1997 and in 1998 and 1999, it showed an increasing trend. By the beginning of 1998, the production of agricultural products had declined to the level of

\textsuperscript{82} A. Khorokhorin, op. cit., p. 45.
\textsuperscript{84} Ibid.
the end of 1950s and beginning of 1960s. Since the production was stabilised in 1997, as has been considered by many economists, it seems to us that, for the first time since the start of economic reform, a trend towards overcoming the decline in production output took shape in the agro-industrial complex. The product volume of agriculture in prevailing prices was 335 trillion rubles, or 100.1 percent of the comparable value for 1996, and the gross grain harvest was 88.5 percent million metric tons by weight after processing, which was higher than the levels of the three prior years. The increase in grain was achieved through a rise in the yields of grain crops (by 7.9 percent, for details see Table 2.4). Positive trends were also noted in animal husbandry. The milk yield per cow increased at agricultural enterprises compared to the previous year, and the egg yield of laying hens was up as well.

However, the economic situation in the agricultural sector remains difficult as a whole. The gross output of agriculture has declined by more than 40 percent over the year between 1991 to 1997, and the herd sizes and product output of animal husbandry have declined as well. The production potential of agriculture has declined significantly, and its utilisation has worsened, since the transition.

The total cultivated area of the country was estimated at almost 117 million hectare, almost 115 million-hectare of annual crops and 2 million hectares of permanent

---

87 A. Khorokhorin, op. cit., p. 45.
89 Ibid., p. 45
If we compare the area under cultivation for various crops and their simultaneous production over the period 1988-1997, it seems that the decline in production has corresponded with the decline in area under cultivation (see Table 2.5 and Table 2.6).

Table 2.6
Area under Principal Crops (thousand hectares)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>306</td>
<td>301</td>
<td>287</td>
<td>267</td>
<td>265</td>
<td>261</td>
<td>193</td>
<td>171</td>
<td>172</td>
<td>151</td>
</tr>
<tr>
<td>Wheat</td>
<td>2457</td>
<td>2437</td>
<td>2424</td>
<td>2315</td>
<td>2428</td>
<td>2466</td>
<td>2219</td>
<td>2390</td>
<td>2570</td>
<td>2605</td>
</tr>
<tr>
<td>Maize</td>
<td>1260</td>
<td>1428</td>
<td>869</td>
<td>733</td>
<td>810</td>
<td>800</td>
<td>524</td>
<td>643</td>
<td>622</td>
<td>918</td>
</tr>
<tr>
<td>Barley</td>
<td>1586</td>
<td>1465</td>
<td>1372</td>
<td>1528</td>
<td>1456</td>
<td>1547</td>
<td>1640</td>
<td>1471</td>
<td>1179</td>
<td>1251</td>
</tr>
<tr>
<td>Millet</td>
<td>1638</td>
<td>1749</td>
<td>1936</td>
<td>1997</td>
<td>1875</td>
<td>1464</td>
<td>1102</td>
<td>698</td>
<td>1228</td>
<td>1086</td>
</tr>
<tr>
<td>Oats</td>
<td>9407</td>
<td>9210</td>
<td>9110</td>
<td>9032</td>
<td>8540</td>
<td>8402</td>
<td>8333</td>
<td>7928</td>
<td>6940</td>
<td>6436</td>
</tr>
<tr>
<td>Ryes</td>
<td>7717</td>
<td>8219</td>
<td>7989</td>
<td>6461</td>
<td>7574</td>
<td>5976</td>
<td>3903</td>
<td>3247</td>
<td>4147</td>
<td>4002</td>
</tr>
<tr>
<td>Potatoes</td>
<td>3290</td>
<td>3235</td>
<td>3124</td>
<td>3187</td>
<td>3404</td>
<td>3548</td>
<td>3337</td>
<td>3409</td>
<td>3405</td>
<td>3352</td>
</tr>
<tr>
<td>S-beets*</td>
<td>1473</td>
<td>1474</td>
<td>1460</td>
<td>1399</td>
<td>1439</td>
<td>1333</td>
<td>1104</td>
<td>1085</td>
<td>1060</td>
<td>935</td>
</tr>
<tr>
<td>Soybeans</td>
<td>651</td>
<td>675</td>
<td>664</td>
<td>645</td>
<td>625</td>
<td>580</td>
<td>487</td>
<td>485</td>
<td>404</td>
<td></td>
</tr>
<tr>
<td>Tobacco</td>
<td>...</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Grapes</td>
<td>124</td>
<td>121</td>
<td>116</td>
<td>111</td>
<td>107</td>
<td>101</td>
<td>88</td>
<td>79</td>
<td>75</td>
<td>72</td>
</tr>
</tbody>
</table>

* Sugarbeets

Data from World Bank, Discussion Papers (Russia), No. 387, 1997, pp. 128-38.

During the transition, the area under principal crops has declined for almost all the major crops. This was because the disintegration of the large-scale farms due to reforms. After Russia introduced a market economy and initiated institutional reforms

* Food and Agricultural Organisation, "Irrigation in the Former Soviet Union countries in Figure"; FAO, United Nations, 1996, p. 169.
through a number of decrees and legislation, the private farms were cropped up. But these farms, however, due to financial and other economic obstacles could not manage to cultivate all the land they used to cultivate earlier in the collectives. This caused a decline in production, though the production in private agriculture has increased.\textsuperscript{91}

**The Dimensions of Disintegration of the Grain Markets**

Most studies investigating market integration in Russia by analysing price series support the view that food markets became disintegrated during 1992-96.\textsuperscript{92} Regional prices were relatively easy to obtain. But to prove the existence of fragmented markets by showing that regional price series were not integrated (in a statistical sense) because they react independently of each other says nothing about the causes and the degree of disintegration. For this, data about inter-regional trade flows transport and transaction costs in trading grain as well as the impact of regional authorities market regulation on domestic trade would be necessary. But such data are either not available at all or only very sporadically for a few regions. Only rough estimates of trends are possible. A comparison of Russian transport and output data for grain as presented in Table 2.7 helps us to gain first insights into the dimension of disintegration.


### Table 2.7

Domestic Russian long-distance grain transport in relation to production and total consumption 1990-96.

<table>
<thead>
<tr>
<th>Year</th>
<th>Grain Production</th>
<th>Total Consumption</th>
<th>Total Availability</th>
<th>Domestic Transport</th>
<th>Of which by Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>116.7</td>
<td>118.9</td>
<td>114.6</td>
<td>89.2</td>
<td>81.5</td>
</tr>
<tr>
<td>1991</td>
<td>89.1</td>
<td>116.6</td>
<td>141.6</td>
<td>75.8</td>
<td>69.9</td>
</tr>
<tr>
<td>1992</td>
<td>106.9</td>
<td>113.9</td>
<td>140.0</td>
<td>70.4</td>
<td>63.6</td>
</tr>
<tr>
<td>1993</td>
<td>99.1</td>
<td>109.0</td>
<td>139.4</td>
<td>63.9</td>
<td>59.2</td>
</tr>
<tr>
<td>1994</td>
<td>81.3</td>
<td>94.1</td>
<td>119.1</td>
<td>40.7</td>
<td>37.9</td>
</tr>
<tr>
<td>1995</td>
<td>63.4</td>
<td>80.3</td>
<td>95.0</td>
<td>34.4</td>
<td>27.6</td>
</tr>
<tr>
<td>1996</td>
<td>69.3</td>
<td>72.2</td>
<td>79.9</td>
<td>26.9</td>
<td>21.1</td>
</tr>
</tbody>
</table>

(1990=100%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Grain Production</th>
<th>Total Consumption</th>
<th>Total Availability</th>
<th>Domestic Transport</th>
<th>Of which by rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1991</td>
<td>76</td>
<td>98</td>
<td>98</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>1992</td>
<td>85</td>
<td>96</td>
<td>97</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>1993</td>
<td>82</td>
<td>97</td>
<td>96</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>1994</td>
<td>70</td>
<td>79</td>
<td>82</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>1995</td>
<td>54</td>
<td>68</td>
<td>66</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>1996</td>
<td>59</td>
<td>61</td>
<td>55</td>
<td>39</td>
<td>39</td>
</tr>
</tbody>
</table>


In **Table 2.7**, the amount of grain available per year within the Russian Federation between 1990 and 1996 is compared with the volume of annual long-distance grain transport. If transport performance has deteriorated more than the available amount of grain has fallen, the share of grain used for inter-regional exchange has diminished. This is exactly what happened in the Russian Federation. Both long distance grain transport and domestic grain supply fell continuously between 1990 and 1996, although the rates of decrease differed noticeably. The transport volume fell to one-third of the 1990 level, whereas grain supply dropped to one-half.\(^{93}\)

---

Even if a decline inter-regional exchange of grain is evident, the problem remains to
decide whether this either indicates an adjustment to an economically justified level of
interregional trade or alternatively, has to be seen as a consequence of internal trade
restrictions obstructing a sufficient movement of goods. The trade restrictions imposed
by regional authorities include prohibition of exporting grain until all agricultural
producers have fulfilled their often very extensive delivery duties to public
procurement organisations, or total export bans in situations of impending food
shortages. In addition, the strict regulation or control of any kind of grain trade by
regional authorities does not create a favourable environment for an increasing grain
trade volume. The experience of many developing countries is that such internal trade
restrictions diminish the efficiency of markets and impede agricultural growth. In
contrast, the view that a reduction of inter-regional trade was rational is supported by
the fact that transport costs were neglected during Soviet times and not taken into
consideration when determining production locations. Thus, if a functioning
domestic market existed, reduced inter-regional transport volumes would have to be
considered positively. But this was not so. In the case of highly fragmented markets,
even a necessary reduction of transport could happen in a sub-optimal way, reducing
agricultural growth.

Due to lack of data, it was not possible to calculate which part of the grain transport
reduction can be attributed to an economically rational adjustment to real transport

94 J. M. Sanz, "Conceptual Issues in Analysing the Economics of Agricultural and Food Self-
95 Kopsidis, op. cit., p. 52.
costs, and which has been the consequence of distorted trade relations due to highly regulative agricultural market policies of regional authorities and a lack of market institutions. However, as has been described in more detail in other studies, some evidence can be found which supports the view that distorted markets were responsible for a significant part of the drop in interregional grain transport.96 Furthermore, a stabilisation of grain production in naturally disadvantaged regions following an expensive self-sufficiency policy accompanied by a severe decline in output in supply regions with relatively good natural conditions can hardly be attributed to changes in spatial specialisation caused by a functioning nationwide domestic market.97 Such a development as that in the Russian Federation rather leads to a reduction of interregional trade, because spatial specialisation in production was diminishing. These were only first, but nevertheless useful, conclusions.

Performance of the Support System in Agriculture

The support system for agriculture that existed during the Soviet regime has gone through very fundamental changes during the transition. All the factors which were directly or indirectly supporting agricultural production, had to adjust to the new economic parameters. During the process many of the services have been abandoned, abolished or modified putting breaks into agricultural transformation. Agricultural credit, subsidy, farm mechanisation, input availability and access to these services are

97 Ibid., p. 268
a complex lot and have become an important problem and need to be addressed separately.

Credit and Finance in Agriculture

Agriculture - in order to function normally, agricultural producers need their own or borrowed working capital. However, in the course of market reforms, in Russia and other post-socialist countries, the producers have expended their own working capital quickly - the principal reason being notorious price disparities.98

The liberalisation of prices and the elimination of production subsidies have led to the rapid levelling of the price correlation between the agricultural products and the means of production (inputs) for the agrarian and food sector. This price correlation was artificially overstated in favour of agriculture in the former USSR and other socialist countries.99 Consequently, the prices for resources started to rise rapidly, outstripping the rate of inflation, while the dynamics of agricultural product prices were limited by the poor purchasing power of the population, and the growth rate of the prices was lower than the over all rate of inflation as a whole. As a result, agriculture was locked in the grips of a price disparity, which has caused farmers to accumulate money and deprived them of purchasing necessary inputs for agricultural production.

99 Ibid., p. 70.
In the former USSR, state support to agriculture was based essentially on the price and subsidy mechanism and on credit policy. Procurement prices consisted of a base price plus bonuses based on quantity, quality and the financial needs of farms. Weak state and collective farms received price bonuses in an effort to improve their financial position; such differential price bonuses were the most significant category of agricultural subsidies in the 1980s. Farm inputs were subsidised and credit was allocated to state owned enterprises by the government banking system. Confessional interest rates and periodic loan forgiveness transferred income to selected groups and enterprises and state-allocated credit was widely used to bail out inefficient and high cost producers. As state and collective farms rapidly accumulated debt in the 1970s and 1980s, debt rescheduling and debt forgiveness became frequent practices.

In the context of a continuing crisis in the agricultural sector, the old support mechanism through credit has not been entirely abandoned. In 1995, the Russian Federation resorted to agro-food sector debt rescheduling, and debt write-off that amounting to more than all the explicit support for agriculture provided in the same year's budgets.

During the transitional period, state guarantees on agricultural credit have particular significance. The drop in production volume and lack of development of the land

101 Ibid., p. 227
102 Ibid., p. 228
market make the problem of collateral in the agrarian sector more acute, and the state in a certain sense replaces the collateral with its own guarantees.

During the first phase of reform, because of the financial crisis, agricultural producers accumulated debts, some of which became impossible to cover. In order to carry out further reforms, it sometimes proves to write off or restructure accumulated indebtedness. Debt restructuring is the deferment of payments on debt on certain terms. Write-off is the complete forgiveness of the debt and its conversion into domestic state debt. The write-off and restructuring of debts of agricultural producers in Russia were carried out in 1994 and 1997. 103

According to Russian scholars, the most successful cases of agricultural reform in the countries of Eastern Europe have grown out of newly instituted credit systems. They pre-select the most reliable borrowers and the government insures private bank loans. Credit co-operation at the local level also has been developed, the likes of which in Russia have occurred in only a few, singular instances. 104

During the course of reforms in Russia, the state had no choice but to distribute budget funds in the form of seasonal credit for agriculture. For the first two years, credit on favourable terms was also distributed through the bureaucratic apparatus, which led to violations associated with the reselling of the loans. 105 The unconditional write-off of

103 E. Serova and R. Ianbykh, op. cit., p. 76.
agricultural debts at the end of 1994 weakened the financial discipline, making this sector riskier from a lending standpoint.\textsuperscript{106}

In Russia, the idea of advance selection of borrowers has been difficult to implement in view of the numerical dominance of unprofitable socialised farms (80 percent of the total number in 1997).\textsuperscript{107} Securing a political consensus and will to cut the financial lifelines of the overwhelming majority of farms has been impossible, since socialised farms in Russia have always combined two functions, that of production and that of communal survival. As a result, loans granted in the 1990s to an undifferentiated mass of farms have been tacitly written off. This has been done three times, in 1994, 1997 and 1998.\textsuperscript{108}

It is apparent that as long as the federal attempts to set up a healthy agricultural credit system avoid difficult choice vis-à-vis irremediable farms, these attempts are doomed to failure. Economic dependency among Russians (particularly farmers) is too deeply rooted in their socio-economic mentality.

After all, economic stratification of farm units has been going on for a long time, and de-facto bankrupts are slowly but steadily eliminated as they close down or are taken over.

The writing off of the debts in 1994 was quite heavy (more than 20-bln. rouble) and not linked with any conditions of farm restructuring.\textsuperscript{109} In 1996, due to the running to

\textsuperscript{106} E. Serova and R. Ianbykh, op. cit., p. 76.
\textsuperscript{107} Joffe Grigory & Tatyana Nefedova, op. cit. p. 396.
\textsuperscript{108} Ibid., p. 396.
bankruptcy Agroprombank was sold on the tender to the commercial (newly established in the reform period) SBS-bank, and the SBS-Agro was set up in the result of this action. At the same time, the special Fund on Soft Credit to Agro-Industrial Sector was set up. Two banks - SBS-Agro and Alfa-bank- were authorised to distribute the Fund to the agro-industrial borrowers.\(^{110}\) In 1999, the now defunct SBS-Agro and the Ministry of Food and Agriculture proposed a new system of agricultural discount and credit, which has not yet been implemented.

In October 1993, the practice of subsidising credit to agriculture was virtually ended. And even at high interest rates, credit was still not available due to the low amount available. Such a credit shortage makes it difficult for peasant farmers to borrow money to buy equipment.\(^{111}\)

One of the most troubling problems facing the sector is the lack of available credit or lack of credit at reasonable and fair rates.\(^{112}\) With improving macro-economic stabilisation, reduced inflation and real interest rates, it is most important that Russia addresses this problem in a way that does not erode the success of the economic reforms made till date.\(^{113}\) The intervention should be of a temporary nature and should be designed to complement, support and sustain the other reforms necessary for economic recovery, reduced government deficits, sound monetary policies, land

---


\(^{112}\) Ibid., p. 183

reforms, privatisation, and de-monopolisation of agricultural assets, creation of a land market and so on.

For most banks, providing credit and loans to the agricultural sector is a high-risk activity due to the low profitability of the farms and processing enterprises and the uncertainty related to ownership and property rights affecting collateral. Moreover, many of these enterprises carry a high debt burden or are faced with large inter-enterprise debt obligation. 114

Closely related to this fundamental and critical problem is the issue of private ownership of land and the agricultural assets. Without legal title and ownership of property clearly established, commercial banks are unwilling to provide credit, or significantly limit the credit to the sector. 115 Even with collateral commercial banks are reluctant to provide credit because they are uncertain as to the value and utilisation of the farm assets they would acquire, were a borrower to default on this credit. With no real land market or low land prices, banks are reluctant to accept land as collateral. 116

Moreover, the banks are more interested in short term gains and loans with less risk, than in the longer-term returns and higher risks of agricultural loans. In addition, most banks are under-capitalised and unable to meet the enormous needs of the sector. To rebuild and re-equip the farms and processing plants with new and modern equipment

114 Ibid., p. 2
116 Ibid., p. 2
and technology, to finance the purchase of the agricultural inputs, seed, fuel, fertilisers etc., farms require a sum of money that simply is not within the capital resources of the banking sector nor within the financial coffers of the government of Russia.\textsuperscript{117}

Unfortunately, some of the former collective and state farms and processing facilities are or will be out-of-business, bankrupt, because their locations are ill suited for the dynamics of a market driven economy. For some, their products are unwanted or not competitive with other domestically produced or imported products. Clearly, the skills and capabilities of the enterprise managers and their ability to change their organisations in response to changing economic circumstances and market signals is a major factor in the success, or failure of many farms/ firms in the agricultural sector.

Agricultural credit is a development resource, which requires a strategy for its mobilisation and allocation, and the purpose for which it is used, are issues within the overall fiscal policy. In the Republic of Korea, for example, the government estimates that 90 percent of mechanical power and implements are purchased with credit extended by the government through the National Agricultural Co-operative Federation (NACF).\textsuperscript{118} The stated purpose of mechanisation of credit is to encourage rapid introduction and use of mechanical power technology. In Russia, particularly after the withdrawal of the state support, a vacuum has been created to channelise

\textsuperscript{117} Ibid., p. 2
credit to the newly independent farmers, who need more farm inputs and mechanisation. 119

Agricultural credit has always been a topic of special attention for state. However, the situation becomes even more complex in transitional economies. In countries with primarily agrarian economic structures, the problem of credit in the first stages of reform effectively does not come up; agricultural producers buy an insignificant quantity of means of production, while the sale of their own products is oriented mainly towards local markets. Under these conditions, the need for lending for production turnover is not very great. Moreover, in the context of the centralised planned economy, agriculture was indirectly taxed for the development of the industrial sector, and the transition to a market economy, this tax as a rule is ceasing to be in effect. 120 The resources that are left in the agrarian sector become an additional source of investments.

In the industrial and post-socialist countries, the situation is evolving differently. Production in the agrarian sector is oriented toward purchased resources, while the market for the products is more global in nature. In the former USSR and in all the countries of Central and Eastern Europe (CEU), the price correlation for the agriculture products on the one hand, and the means of production for the agrarian and

119 Ibid., p. 33
120 Ibid., p. 69
food sectors, were artificially overstated in favour of agriculture on the other.

**Credit Reform**

Nominal interest rates for agriculture were raised in 1992, but real interest rates fell because of higher inflation. The build-up of arrears also continued. Following the rise in nominal rates, the government announced increased interest rate subsidies for the sector.\(^{121}\) Privatisation in conjunction with relative price changes, will not lead to the desired restructuring of the agricultural sector until the credit system begins to impose a hard budget constraint on enterprises and reflects the opportunity cost of capitalism in the economy as a whole.

The days of the state-lavishing subsidy, credit on the agricultural sector was over. In October 1993, the practice of subsidising agriculture ended. Peasant farmers and enterprise leaders faced very high interest rates, sometimes amounting to over 200 percent.\(^{122}\) A related problem is the amount of credit available. Many peasant farmers reported that, even at high interest rates credit was still not available. Such a credit shortage makes it difficult for peasant farmers to borrow money to buy equipments and would cause additional problems as the land market develops and farmers were able to use mortgages to borrow money and buy land.\(^{123}\)

---

\(^{121}\) "Russian Economic Reform: Crossing the Threshold of Structural Changes", Chapter 12, World Bank, 1994, p. 201.


\(^{123}\) Ibid., p. 183
There is an urgent need for credit for new private agricultural operations. Farmers need credit to purchase seeds and other inputs; they need mortgages if they want to expand their holdings. But there is no such banking system developed to grant credit to farmers, since the transition. Under Communism, banks served mainly to pass along funds from the State Treasury to socialised enterprises as a form of disguised subsidy. Interest rates were extremely low, and loans were seldom paid back. Such a system is incapable of meeting credit needs of the private sector.\textsuperscript{124}

The development of a private agricultural credit market, which may reduce agricultural sector's dependence on state credit and its demand on state budget, is a very important and unresolved issue in Russia. The incomplete definition of property rights on land hampers the development of a land market and of a rural credit market based on the use of land as collateral. In addition, there were complex problems of reform of financial institutions since, for instance, the heritage of the former USSR was a system where deposit mobilisation in rural areas through the savings bank and lending to agricultural through Agroprom bank were in practice separated and interest paid on deposits were low and inflexible, so that the banking system did not fulfil a role of a financial resource allocation in rural areas.\textsuperscript{125}

The transition to a market economy in Russia has brought agricultural sector under severe financial problems. The demand for a viable credit system has become very much essential for the growth of the private as well as cooperative agriculture. The old

\textsuperscript{124} Nancy J. Cochrane, “Central European Agrarian Reforms in a Historical Perspective”, \textit{American Journal of Agricultural Economics}, 75, August 1993, p. 854.
\textsuperscript{125} FAO, 1996, op. cit., p. 228.
mechanism must be fully abolished and a new credit policy must be introduced that can cater to the needs of the new entrepreneurs in the agricultural sector.

Over the medium and longer term, the policy environment needs to promote the development of a viable rural banking system that can both mobilise savings and extend credit to farm enterprises at positive real rates of interest. An effective rural banking system could improve the ability of farm enterprises to manage cash flows and enhance their capacity for self-finance. Experience in other countries has shown that rural banks can also help finance small business activities by workers who leave the agriculture sector.

**Input Use in Agriculture**

Soviet farms suffered from a chronic problem of careless storage and utilisation of inputs. One way to explain this wasteful use of inputs is the concept of ex-efficiency. Soviet farms operated at higher costs of production than was hypothetically possible, given the resources and technologies available to them. This is largely because of the circumstances in which farms operated, which encouraged hoarding of scarce inputs, providing guaranteed employment, and utilised cost plus pricing. With the elimination of centralized management and administered prices and the hardening of farms’ budget constraints, there has been a significant rise in the indicators of the efficiency

Much of agricultural support under the Soviet system came from indirect subsidies in the form of low input prices tax breaks and interest rate subsidies. With the gradual phasing out of these discounts, agricultural input prices increased, raising farms’ marginal costs. With the liberalisation of prices and the reduction of indirect subsidies through the price system, the terms of trade for agriculture deteriorated. Increases in prices for inputs in Russia have caused farms to reduce the quantity used drastically.\footnote{127 Ibid., p. 143.}

The acquisition of adequate equipment to start a peasant farm has become more and more difficult since 1992. This continues to be a major barrier to the creation of new peasant farms and the expansion of existing efficient peasant farms. Equipment prices have increased dramatically since transition.\footnote{128 R. L. Posterman, L. J. Rolfs & Mitchell, “Russian Agrarian Reform: A Status Report from the Field”, Communist Economies and Economic Transformation, Vol. 7, No. 2, 1995, p. 183.}

The chronic insolvency of agricultural enterprises has effectively led to the collapse of agricultural machine building. The production of tractors, agricultural machinery and other equipment for animal husbandry and feed production, grain harvesting combines and the like has dropped sharply since transition. The sale of gasoline to agriculture has declined by 2.6 times and diesel fuel by 3.9 times.
The infrastructure network of countryside has also been destroyed in the process of transforming the country’s economy and agriculture (the repaired yards, material and technical supply, sales system, agro-chemical and reclamation services etc.).

The sharp deterioration of the terms of trade between agriculture producers and input suppliers has caused dramatic decrease in usage, sales and production of inputs. Between 1991 and 1995, tractor production decreased by a factor of 8 to 9 in Russia, while the reduction of mineral fertilisers and compound feed production has generally been less dramatic.

Russian government resisted farmers’ request to reintroduce state controls on input prices, but in 1994, it created a machinery leasing programme - in practice, a time repayment plan - intended to support the agricultural machinery producers as well as farmers. A large share of inputs acquired by farms in 1995 were supplied through plans, for which allocations were established by the Federal Ministry of Agriculture, the regional authorities, and a former government agency recognized as a joint-stock company, which acted as the sole distributor to farmers, who could pay in cash or in kind to the state. Agricultural input provision, thus, seems to have occurred in 1995 along lines which bear many similarities with pre-transition methods, including the link between input supply and state procurement.

The low levels of income and enormous indebtedness of the majority of agricultural organisations, given the significant reductions in production efficiency and the

---

131 Ibid., p. 225
blocking of current accounts as a result of shortage of money, are not only making normal business activity impossible, but are also putting the brakes on the implementation of programmes for the further reorganisation of the farms.132

It is observed that there were neither the condition nor the personnel in Russia for the mass creation of private farms. For example, each farmer should have at least one tractor and if he cultivates grain crops, then a grain harvesting combine as well. Before the start of the reforms there were a third as many tractors and 2.1 times fewer grain harvesting combines per 1,000 hectares of tilled land in the RSFSR than in the United States.133 So production of more tractors and combine harvesters and accessibility to them are necessary pre conditions for private farm development.

Deliveries of tractors to agriculture totalled 131,400 units and grain harvesting combine 31,700 units in 1991 in Russia, they were 65,400 and 17,300, respectively, in 1992 and 4360 and 2160, respectively in 1997 (see Table 2.8)

---

**Table 2.8**

<table>
<thead>
<tr>
<th>Farm Machinery in Use, Russian Federation (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractors</td>
</tr>
<tr>
<td>Agri</td>
</tr>
</tbody>
</table>
| Harvesters-
| Threshers | 476 | 450 | 411 | 408 | 400 | 371 | 347 | 317 | 317 | 317 |

Source: Statistical Year Book for Asia & the Pacific, 1997/United Nations, p. 474

132 A. Khorokhorin, op. cit., p. 46.
The economic situation in the agricultural sector has been made even worse because of the financial and budget crisis, as a consequence of which the sizes of the special beneficial lending fund for enterprises and organisations in the agriculture and the leasing fund have been significantly less than predicted. The financial status of agriculture reached a critical level, and enterprises stopped buying hardware equipment, fertilisers and building materials. The plants making agricultural machinery, chemical plants, and many other types of production came to a halt.\(^{134}\)

The question of providing the agricultural enterprises with equipment, especially equipment at a new and contemporary level, was acute. If urgent steps were not taken in this direction then the agriculture would have nothing to sow or to harvest in future. The situation in agricultural machine building must be improved in order to avert the destruction of the material and technical base. Even though the country lags significantly behind world standards in the production of agricultural equipment, some enterprises have been able to achieve good results through improvements in the models they produce.\(^{135}\)

The consumption of fertiliser has declined drastically, which remains far below the other developed countries. A negative nutrient balance has taken shape on tilled lands owing to the drastic reduction in the application of mineral and organic fertiliser.\(^{136}\)


\(^{135}\) Ibid., p. 21

The application of mineral fertiliser has drastically come down since transition (see Table 2.9). Due to the new structure of financial policy, all the three major fertiliser categories have shown a declining trend. The nitrogenous fertiliser has decreased from 2622 thousand metric tons in 1992 to 1100 in 1996. The situation in consumption of Phosphate fertiliser has declined from 1300 to 350 thousand metric tons over the same period and the consumption of potash has also decreased to only 400 metric tons.

Between 1992 and 1996 the year 1994 has the lowest consumption of fertiliser. Only 27 percent of sown area were fertilised in 1999-2000.

<table>
<thead>
<tr>
<th>Fertilisers (thousand metric tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>------</td>
</tr>
<tr>
<td>Nitrogenous Fertilisers</td>
</tr>
<tr>
<td>Phosphate Fertilisers</td>
</tr>
<tr>
<td>Potash Fertilisers</td>
</tr>
</tbody>
</table>


The fertiliser consumption in Russia has come down to the lowest in the world standards. This was one of the major reasons of the decreased grain production in Russia. The situation is worse with the private producers (the individual farmers). Due

---


to lack of financial support they are deprived of using fertiliser resulting low production efficiency. Another important thing that must be considered was that unavailability of fertiliser in the open market due to market imperfections. And at the same time, the very mentality of the people has been holding them back to look to state support rather than purchasing the required inputs from the open market.

The principal sources of financial resources to increase deliveries of equipment, fertilisers, and petroleum products for the countryside could be the elimination of the price disparity and the normalization of monetary and credit turnover. According to the expert estimates of the All-Russian Institute of the Economics of Agriculture, had agriculture acquired material and technical resources and paid for the services of collateral organisations in 1997 at 1990 prices, agricultural production would have had a profitability of 37 percent.\(^{139}\)

Therefore, the situation in the agricultural sector in Russia needs various supplies of basic inputs to make the newly farms efficient. The market structure should be facilitated to bring the buyers and sellers to a negotiated price. The small farmers would be benefited if availability of machines, fertilisers and other inputs were available in the local markets. For all these to run, the rural sector needs financial support from both government and private agencies. To make agriculture market oriented, the farmers must be provided with all required inputs initially with soft loans and credit programmes and after a certain time the same should be left free to the market.

\(^{139}\) V. Semenov, op. cit., p. 21.
Market for Agricultural Products

With the transition to a market economy at the beginning of the 1990s, the state moved quickly out of the sphere of distribution of agricultural and food products. The share of procurements for state allocations has been dropping sharply since 1992 for all types of food products.

In Russia, the sellers of the grain and other food products are the producers of these products. These producers are agricultural enterprises, private subsidiary farms of the population and private family farms. In the process of formation of the market for agricultural products, the private family farms or autonomous farms have virtually no role to play, since they produce a very small amount (5 percent) of the produce. On the other hand, the private subsidiary farms produce almost half of the total produce, but unfortunately their share for sell in the market is very small, as these farms are subsistence farms. 140

The situation with the large farms went in a different manner. The state procurement of grain continued till 1996 though in a more distorted manner. The situation changed after 1997 when large farms effectively ceased to procure products from the population. Furthermore, the percentages of products (mainly grain) they were distributing among their own employees in the form of in-kind payments or dividends rose. 141 The reason is obvious - high level of debts and scarcity of working capital among agricultural enterprises.

141 Ibid., p. 7
Agricultural enterprises obtain vegetable products almost entirely from their own production, indirectly avoiding market for these products. The situation was somewhat different with animal husbandry products. Farms acquired 2-5 percent of all milk from their own residents in 1994-95. Both the vegetable and meat production have been dominated by the private farms and part-time farms. Both the products were mainly supplied to the processing enterprises, and the market of direct sales for meat and milk skips out of the common market.\textsuperscript{142}

The less use of currency as the medium of exchange has severely undermined the development of agricultural market. At the same time, the role of barter and in kind-payments to workers rose sharply among the product sales channels for agricultural producers. This reflects the acute scarcity of working capital in agriculture. This trend was especially noticeable using the example of grain as the most universal commodity and as a monetary substitute in contemporary Russian agriculture. The market for grain and the disintegration of domestic grain trade is given importance, since grain is the essential ingredient of Russian agricultural development.

**Market Failure in Domestic Grain Trade**

In this study, three main reasons for the declining domestic agricultural trade and lasting fragmentation of the Russia grain market are mentioned.\textsuperscript{143}

1) The growing independence of the political entities of the Russian Federation and a simultaneously diminishing central power has been given considerable scope

\textsuperscript{142} Ibid., pp. 6-7

for restrictive local and regional administrative regulations concerning agricultural trade.

2) High transaction costs in interregional trade due to a lack of institutional framework and the de-monetizations of the Russian economy, growing barter trade as well as lack of a private marketing institution and concurrently paralyzed and under financed public buying and trading organisations, have also contributed to the enhancement of transaction costs.

3) The lasting deterioration of the infrastructure during the previous decades and the deepening crisis in the Russian transport sector since the beginning of the 1990s, as well as a sharp rise in fuel prices, have led to steeply increased transport costs. The latter have resulted in a significant deterioration of the terms of trade of agricultural products compared to fuel.\textsuperscript{144}

The political dimension of the disintegration of agricultural markets has become the focus of attention in the literature over the past few years. Although the disintegration of Russian agricultural markets is a result of poor infrastructure and high transport costs, it looks very much as if political developments following the collapse of the Russian central state in 1990 are the main cause for the fragmented markets.\textsuperscript{145} In addition to the poorly integrated markets, such as poor infrastructure or inefficient market regulations, the fundamental preconditions for establishing a domestic market for agriculture products were not fulfilled in the Russian federation. In contrast to many developing countries, the question in the Russian federation was not whether

\textsuperscript{145} Melyukhina & Wehrheim, 1996, OECD, 1998, p. 267
agricultural policy fosters or impedes the establishment of efficient markets, but whether the Russian Central government was actually able to enforce any of its agricultural policies. The weakening of the national government during recent years has made disintegration in the Russian case especially severe, even compared with many developing countries.

A functioning national government that takes responsibility in agricultural policy is necessary to ensure the unity of a domestic market. But even this principal condition is not fulfilled in the Russian federation. More and more, regional authorities have taken full responsibility for agricultural policy since 1991 whereas central government has become more and more immobilised. Thus, every different agricultural policy is pursued across regions, which under certain circumstances could 'inhibit' the internal specialisation of Russian agriculture according to comparative advantage. 146 This is especially the case since many important regions preserve the old centrally planned economy at a regional level. 147

It seems likely that the causes of disintegration differ across regions. In any case, the central government should at least have an integration strategy to change the critical situation. But even this minimum precondition is not fulfilled. It means that even in economic policy, changing bilateral agreements instead of constitutional rules determine the responsibilities of Moscow and the Oblasts and the republics. Some political entities like Tatarstan almost behave like independent states, 148 whereas

others are treated as purely administrative units. Thus, a poor delimitation of federal and regional responsibilities and incomplete enforcement of federal legislation have created problems for securing the unity of the internal problems for securing the unity of the internal market.\textsuperscript{149} But it has to be mentioned here that this unstable policy has to a large extent resulted from the necessity to preserve the political unity of the Russian federation.

In addition to the growing independence of the regions, it seems that the privatisation process has also aggravated the fragmentation of Russian grain markets. Regional authorities have also strongly influenced the privatisation of the grain procurement and trade organisations, which had a deep impact on market integration. Bogus privatisation, which only helps to strengthen the survival of the centrally planned economy at a regional level by handing control over the new enterprises to the old Soviet local elite groups, obstructs the emergence of a domestic market. In contrast, only privatisation which do not result in the concentration of regional political and economic power in one hand will help to break up local monopolies and encourage market integration.

Controlling the privatised public procurement and trade organisations was a precondition for regional administration to establish their dominant position in local grain markets; it has also facilitated the enforcement of local trade restrictions. The public procurement and trade organisations, especially those for grain, were only formally privatised. The newly founded joint stock companies are still controlled by public shareholders mainly under the control of regional administration, as well as by

\textsuperscript{149} OECD, 1998, op. cit., p. 267.
former directors. In many cases, the new owners, even if they are part of the public administration or party elite, are not controlled by central institutions anymore. They belong to the regional elites who have seized nearly all political and economic power in many oblasti and republics of the Russian Federation. Thus, for example, in the area of grain marketing, a large number of regional monopolies have gradually replaced the former central government monopoly.\(^\text{150}\)

The impact of privatisation on market integration is illustrated in Table 2.10.

<p>| Table 2.10 |</p>
<table>
<thead>
<tr>
<th>Long distance domestic grain transport in relation to some indicates for the progress of privatisation in grain marketing 1990-1996.</th>
</tr>
</thead>
<tbody>
<tr>
<td>------</td>
</tr>
<tr>
<td>Domestic grain transport (1990=100)</td>
</tr>
<tr>
<td>Share of state procurement in total</td>
</tr>
<tr>
<td>Grain production (%)</td>
</tr>
<tr>
<td>Share of free market sales in all grain</td>
</tr>
<tr>
<td>Sales at farm level (%)</td>
</tr>
</tbody>
</table>


A first look reveals the simultaneous doubling of the free market share in all farm grain sales and near halving of the state procurement share in total grain production, as well as a tremendous decline in domestic transport, within only one year from 1993-1994. During this time, most state grain procurement organisations were privatised. As mentioned above, the great leap forward of free market sales, 1994 can be explained by the fact that, since 1994, a sizable part of the so called free market trade has been undertaken by joint stock companies controlled by regional authorities. Since, under

these circumstances, the share of free market sales reveals nothing about the market structure and the development of private versus public grain trade, it cannot be used to indicate any progress in the direction of efficient private markets. Nevertheless, these shares at least seem to be useful for determining the moment when central state regulation of grain marketing and therefore the central coordination of inter-regional grain trade was finally over. It could be argued that the final collapse of central grain trade coordination could help to explain to a large extent the exceptionally high reduction in domestic grain trade between 1993 and 1994. These results are only tentative and no causal link is sufficiently proved. Nevertheless, they show that the serious problems in Russian grain marketing cannot be attributed exclusively to the Soviet heritage, but that they must also be seen as the consequence of severe flaws in the economic policy implemented during the transition period, especially in the field of privatisation.

The facts support the view that privatisation in the Russian federation has certainly helped to destroy the old inefficient central government grain monopoly, but probably to ensure the survival of centrally planned economic structures at the regional level.\footnote{Ibid., p. 219} Additionally, the evidence is that the newly emerging grain marketing institutions at the regional level—whether they are private or not—have apparently not been able to fill the institutional vacuum to ensure a sufficient level of inter-regional grain trade after the collapse of central institutions. Thus, market disintegration has very probably accelerated since 1993, owning to the Russian method of privatisation.
The decrease of domestic agricultural trade and market disintegration is also closely linked with the growing importance of barter, which is a result of the de-monetisation of the Russian economy. Among other things, de-monetisation means that the Russian enterprises are more and more cutting out the banking sectors and settling their claims and liabilities without involving financial intermediaries. Enterprises have consequently resorted to cash and barter transactions: this also meant breaking ties with client or suppliers. Enterprise in far-off regions where payments reached only after a long lapse of time and where the transactions costs of barter were higher. The higher transaction cost of barter, especially in long distance trade, are, in addition to political conflicts and the poor performance of the transport sector, responsible for the shrinking of the volume traded inter-regionally.

Evidence of the growing importance of barter in agricultural trade can also be found by analysing the outlet for grain at the farm level. Two of the five marketing channels mentioned in the Russian statistics are closely linked with the de-monetisation of the Russian economy, namely payment in kind to workers and barter sales.

---


Concerning inter-regional grain trade, the development of barter sales is of more interest because the largest part of the agricultural workers’ payments in kind is used for own consumption or appears to remain on local markets. ‘Barter sales’ mainly comprise the trade in agricultural products by farm to obtain necessary inputs like fuel and fertiliser. To a large extent this kind of barter sale is part of commodity credits which are granted by regional administrations. Since regional authorities are often farms’ main suppliers of inputs in exchange for agricultural products, these administrations have direct control over a large and even growing share of the physical grain output. This grain can be used within the regions, as well as for inter-regional exchange.

Table 2.11
Barter Sales in Total Grain Sales from Farms (1992-1997)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Million tons</td>
<td>2.0</td>
<td>3.0</td>
<td>10.0</td>
<td>13.0</td>
<td>19.0</td>
<td>25.0</td>
</tr>
</tbody>
</table>


Thus, it can be assumed that interregional grain trade is to a large extent carried out by regional administrations. They seem to control not only local markets but also a significant part of the inter-regional grain trade. The share of barter sales has grown steadily between 1992 and 1997 from 2 percent to 25 percent (Table 2.11.) In contrast, the share of grain sales via direct retail sale (free market) stopped increasing in 1995 and fell slightly from 29 percent to 26 percent in 1997.

There was still lack of empirical studies. First results still indicate a steep rise in the total number of food enterprises during recent years.\textsuperscript{157} Thus, it could be argued that significant barriers to entry did not exist. However, even in the substantial increase in the number of enterprises was not a sufficient condition to prevent the lasting existence of highly monopolistic structures. This was indeed the case in grain marketing, where nearly 3500 private enterprises were formed out of the state organisations without preventing the development of many local monopolies and monopsonies.\textsuperscript{158} But grain was an exception so far as public control in this sector was deliberately maintained by the privatisation law to ensure that public intervention would be possible during food shortages. The example of grain sector at least illustrates that knowledge about the ownership structures and cross-ownership of newly privatised or founded enterprises was absolutely necessary to assess the level of competition on local agricultural markets.

Agriculture in Russia has been in a very slow process of change from the command control to a free market. During the process it has experienced many things of the new economic parameters. But the institutional set-up, the overall environment in the economy, the very mentality and dependence of farmers on the state, and inadequate infrastructure has resulted in the slow transformation of agriculture. At the same time, unlike industry, agriculture has failed to adapt itself to the principles of the new economic system and new external parameters. The transition is an opportunity for Russian agriculture. The use of market principles and gradual adaptation to it can

\textsuperscript{157} Michael Kopsidis, op. cit., p. 56.
\textsuperscript{158} Stockbridge, 1997, op. cit., pp. 196/220.
create an efficient agricultural sector. For better management, the sector needs to adapt itself to the new external parameters and the principles of market change. It also needs to create a set of institution, which would fulfil the void and become an alternative to the old support system. This lies defunct now. A set of economic mechanisms must be created for the development and regulation of credit, subsidy, input supply, farm mechanisation and other market information to promote private farming network in Russia.

The process needs more state supports and gradual withdrawal of the support services. Since agrarian transition is a very complex process in Russia, the nearly created farms structure and economic units must be provided with enough external support and guidance to adjust the entrepreneurs to adapt to the new environment.