International Trade Issues of the Russian Federation

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János Gács and Merton J. Peck, Editors

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Introduction

János Gács and Merton J. Peck

Trade and capital flows between Russia and the rest of the world are now significant for both partners. The economic reforms introduced in Russia since 1991 have converted an autarkic, highly regulated economy into a relatively open one. The dramatic change followed from the abolition of central planning and complex exchange rate controls as Yeltsin came to power in Russia and the Soviet Union collapsed. Yet the years since 1991 are not simply a record of tearing down trade barriers. Instead Russia's role in the international economy appears to be erratic and inconsistent. Also the transformation of earlier inter-republic deliveries between former republics of the Soviet Union to trade between independent states implied the sometimes controversial establishment of new trade barriers. The country's struggle to develop a viable trade policy provides unique insights into the consequences of the conflicts of economic ideas: free trade versus protectionism; rewards for economic efficiency versus social equity; and macroeconomic stability versus maintaining employment. The clash among policy proposals has been reflected in political struggles, for the decisions on these matters have an impact on the lives of the 179 million Russians.

The topic of this volume – *International Trade Issues of the Russian Federation* – is a key issue in Russia's transition to a market system and its integration into the world economy. Since 1990, the International Institute for Applied Systems Analysis (IIASA) has had a project on Russia's economic problems. The project has organized a series of conferences.[1] The papers that make up this volume are from a conference held in May 1994 in Laxenburg, Austria. The conference was on Russia's international trade issues, aside from its ties to the republics of the former Soviet Union, a topic of a 1993 conference.[2]

The reader will find alternative, and sometimes quite different, estimates for trade volumes, for trade balances, and for nominal and real exchange rates, as well as differing policy prescriptions. Such divergence realistically reflects the state of statistical data and knowledge in 1994. The editors have not attempted to make the data in different chapters consistent, nor have they attempted to reconcile the differing conclusions of individual authors.

The first three essays in Part I by **Andrei Illarionov, Peter Havlik**, and **Masaaki Kuboniwa** illustrate the difficulties of measuring trade flows. The statistical analysis of Russian trade is unusually difficult because customs at the borders of the former Soviet republics were established only recently and record only a portion of the legal imports and exports and miss completely the large quantities that are smuggled. The establishment of reliable trade data is complicated by regulated prices that differ from international ones, the volatility of the exchange rate, the purposeful under- and over-invoicing by traders to place capital abroad, and trade-related tax evasion. In this situation, it is no surprise that the three authors evaluate the recent developments in Russia differently. Havlik (Chapter 2) emphasizes the secular decline of trade volumes since 1990, whereas Illarionov (Chapter 1) stresses the 1993 increase in exports and the improvement in trade balance. Havlik does not find a reorientation of trade from the Soviet pattern, whereas Illarionov emphasizes that much of former politicized trade has been eliminated in favor of commercial relations.

The impact of trade policy is analyzed in the essays in Part II, with particular attention to how general policy changes have affected trade. **Vladimir Panitch** (Chapter 4) examines the nature of political instability in Russia and its impact on short- and medium-term decisions of enterprises to export and import. The unclear division of authority and responsibility between the central and local authorities over trade is the most distinctive manifestation of the unstable political situation. The resulting uncertainty makes the value of international transactions difficult to predict for the parties involved and in this way deters economically beneficial activity. While various methods of liberalization were intended to make the foreign trade regime more transparent, other developments have frustrated attempts to achieve this goal. For instance, the level of overdue debt of enterprises has resulted in continued extensive reliance on barter trade, a distinguishing feature of the Soviet era.

Pekka Sutela in Chapter 5 discusses to what extent the transformation of the foreign trade regime inherited from the Soviet past has been shaped by general economic policies. Populist tendencies and organized pressure groups have prevented the full implementation of trade liberalization

measures announced several times since October 1991. He concludes that, while there is little chance of returning to a state monopoly of foreign trade characteristic of the Soviet era, liberal government policies are weakened in their implementation by rent seeking of enterprises, inside dealing, and corruption. Even though the ministries discuss sector-specific industrial policies and direct control of trade, they continue to support earlier blueprints for market liberalization and less government intervention. Given this situation, Sutela forecasts muddling through – a political science term for the absence of clear policy. He thinks this is particularly likely in the absence of macroeconomic stability.

Kamilla Lányi (Chapter 6) examines the relation of domestic wholesale markets and foreign trade. As in other transition economies, the lack of established institutions to support a market economy has diminished the effects of price liberalization. In Russia, however, the almost total lack of markets for wholesale trade in the former Soviet regime made the disappearance of centrally managed allocations particularly crippling. The author concludes that the liberalization of foreign trade without established domestic markets may lead to the emergence of trade that favors the non-Russian partner and discourages otherwise economically viable import substitution or export activities in Russia.

Part III contains chapters on exchange rate developments from the early 1980s to 1994. **Vsevolod Bulantsev** (Chapter 7) describes the evolution of the various exchange rate regimes during this period. He pays particular attention to the relation between domestic prices and exchange rates, especially in the context of strong real appreciation of the ruble in 1993, the relation between the exchange rate and the interest rate, and the development of the interbank foreign currency exchanges and other foreign exchange markets.

Linda Goldberg and **Rafael Tenorio** (Chapter 8) scrutinize the behavior of agents at the Moscow Interbank Currency Exchange, an institution that created market-determined exchange rates by its repeated auctions of hard currency. In their regression analysis they find that market forces had strong effects on the demand for foreign exchange at the auctions. While the opportunity cost of holding rubles strongly influences demand for foreign currency, trade policies themselves were found to have little effect on the exchange rate. This may result from either the ineffectiveness in the implementation of the policies or that the policies were too diverse to send a clear message to the participants in the market.

Carlo De Nicola and **Daniel Gros** (Chapter 9) use the same data as Goldberg and Tenorio to test whether the foreign exchange market that

evolved through auctions was efficient as defined in finance theory. A foreign exchange market is considered efficient if it is not possible systematically to realize profits by forecasting future exchange rates from available data. To their surprise the authors find that the new Russian foreign exchange market should be considered at least weakly efficient since the beginning of 1992.

Vladimir Drebentsov (Chapter 10) analyzes both the objectives and actual moves of trade policy, a subject discussed briefly in earlier chapters. He finds that the initial liberalization in 1991 freed imports more extensively than exports. In spite of frictions Russia's commercial policy has become more liberal over time. There still remains a strong bias in trade policy in favor of import substitution and against exports.

For many decades the Soviet economy was characterized by a sharp separation of domestic economic activities from developments in the world market. Recent reforms have attempted to remove the separation to create competition between Russian products and services and those from abroad. The strengths and weaknesses of Russian products in this rivalry are assessed in the chapters written by **Yevgeny Kuznetsov** and **Matthias Lücke** in Part IV.

Kuznetsov (Chapter 11) assesses the competitiveness of different segments of the Russian industry in terms of resource endowments, market distortions, and the managerial capabilities of Russian enterprises. This chapter also considers the potential of Russian enterprises to meet the requirements of the world economy. In assessing future prospects for Russian exports the author emphasizes the importance of learning-by-doing at the level of the firm and the formation of company groups rather than sector-specific government policies.

Lücke (Chapter 12) attempts to explain why Russia's manufacturing exports are currently at a low level that is inconsistent with the country's human and material resource base. The author envisages several scenarios, assuming less or more success in the establishment of greater political stability and macroeconomic stablization. The scenarios vary from "Kuwaitization" (reliance on the export of natural resources), through maintaining the established markets for capital goods in China and in the republics of the former Soviet Union, to the successful promotion of nontraditional exports with governmental support.

The two chapters in the book's final section examine investment of Russians abroad and investment in Russia from outside. Capital flows into Russia are required to restructure the industrial sector from producing military goods to producing products that match the demands of a market economy. Despite the need for such investment in equipment and buildings, the

de facto liberalization of controls over capital transfers, political instability, and the high rate of inflation have resulted in capital flight from Russia.

Michail Sarafanov in Chapter 13 describes the different components of capital flight from Russia. He estimates legal and illegal capital outflow and inflow, and finds the illegal net capital outflow in 1993 to be about $10 billion, and the legal capital outflow about $4.4 billion. He concludes that the total flight is not an excessive drag on the Russian economy, but expresses the hope that the new forms of privatization as well as stable government policies will improve the general economic climate sufficiently so that much of the capital that recently left Russia would be repatriated.

Alexander Astapovich's chapter is closely related to the previous one. The author assesses the impediments to foreign direct investments in Russia, and the ways to involve foreign capital in the privatization of state-owned enterprises. He considers that there is much to be gained by eliminating the remaining bureaucratic barriers to foreign direct investment and by clarifying the roles of local and central authorities in negotiating with prospective foreign investors. The post-voucher privatization also provides for new possibilities for attracting foreign capital. Astapovich recommends that to encourage foreign investment government policies should differ by sector. Natural resources, particularly oil and gas, high-technology industries, and those serving local governments, all call for policies especially directed at their requirements.

The editors hope this book will serve readers interested in the international aspects of Russia's difficult transition to a market economy. Despite weaknesses in statistical information and differing views on specific public policies among the authors, there is considerable agreement on the relative importance of various issues. Thus divisions of power between levels of government, frequent policy changes, and macroeconomic instability are seen as barriers to integrating Russia into the world economy by many of the authors. The controversies are formulated more implicitly than explicitly but in a way that should increase the reader's understanding of the difficult decisions Russian leaders face. One certainty: many of the issues discussed here will remain controversial and important for years to come.

The editors wish to thank the Ford Foundation and the Pew Charitable Trusts whose generous grant helped to organize the conference at IIASA on International Trade Issues of the Russian Federation and to publish this book.

Notes

[1] Apart from this seminar series, IIASA has acquired in recent years substantial experience in analyzing the foreign economic relations of transition economies. Publications of the Economic Transition and Integration Project of IIASA include:

1. M.J. Peck and T. Richardson, eds., 1991, *What Is To Be Done? Proposals for the Soviet Transition to the Market*, Yale University Press, New Haven, CT, USA.
2. F. Schmidt-Bleek and N. Totzev, eds., 1991, *Proceedings of the Second International Varna Seminar: On the Way to Convertibility in Central and East European Countries*, CP-91-5, International Institute for Applied Systems Analysis, Laxenburg, Austria.
3. ETI Project, 1993, Economic Relations Among the Successor Republics of the USSR, WP-93-38, International Institute for Applied Systems Analysis, Laxenburg, Austria.
4. J. Gács and G. Winckler, eds., 1994, *International Trade and Restructuring in Eastern Europe*, Physica-Verlag, Heidelberg, Germany.
5. C. Schneider, 1994, Western Assistance to Central and East European Countries in Their Transition to Market Systems, WP-94-6, International Institute for Applied Systems Analysis, Laxenburg, Austria.
6. V. Bárta and C.M. Schneider, eds., 1994, *Stabilization Policies at Crossroads?* CP-94-11, International Institute for Applied Systems Analysis, Laxenburg, Austria.
7. M. Busse, 1994, Restructuring and Recovery of Output in Russia, WP-94-90, International Institute for Applied Systems Analysis, Laxenburg, Austria.
8. R. Holzmann, J. Gács, and G. Winckler, eds., 1995, *Output Decline in Eastern Europe: Unavoidable, External Influence or Homemade?* Kluwer Academic Publishers, New York, NY, USA.

[2] The report for the 1993 conference is entitled Economic Relations Among the Successor Republics of the USSR, WP-93-38, published by IIASA.

Part I

The Development and Structure of Russia's Foreign Trade in 1992–1993

Chapter 1

Foreign Trade in Russia: 1992–1993

Andrei Illarionov

In recent years Russia's foreign trade has changed dramatically with respect to its participants, regime, performance, and composition. The main causes for these changes were large-scale economic and political crises in the former USSR and the new Russia, the dissolutions of the Council for Mutual Economic Assistance (CMEA) and the Soviet Union, radical social and economic transformations in Russia and in the former centrally planned economies that were the main trading partners of the former Soviet Union and Russia, and the deterioration of Russia's conditions of trade caused by changes in the world market and partially by changes in Russia itself.

The most influential cause was reform of the foreign trade regime. This reform included the abolition of the state monopoly of foreign trade, large-scale liberalization of foreign trade, changes in the order of registration for participants of foreign trade, the gradual dismantling of the system of multiple exchange rates (at the beginning of the 1990s about 3,000 so-called differentiated currency coefficients existed), the liberalization of the currency exchange, an almost complete shift to the servicing of transactions in hard currency, the establishment of a somewhat developed currency market, a sharp reduction in the number of goods subject to quotas and licensing, the introduction and modifications of new export and import tariffs, the introduction of a centralized export system, and the successive reductions and final abolition of centralized import subsidies.

Two years of radical transformations have also changed the role of foreign trade in the Russian economy and its influence on national producers and consumers. A shift from the pre-reform policy of import substitution has also become visible. The most important outcomes of the two years of reform have been the destruction of the *iron curtain* around Russia's external economic relations, the end of the artificial closeness and isolation of the Russian economy, and the opening to the world market.

A number of factors limit and even distort the original information base making it quite difficult to analyze objectively the scale, dynamics, and structure of Russia's foreign trade in the last decade. First, because Russia was part of the USSR there were no customs borders until the end of 1991. Foreign trade was a monopoly of the federal authorities and its statistics were in the exclusive domain of the State Statistics Committee (Goskomstat) of the USSR. Until 1991 statistics on individual republics did not exist. Therefore, the data on Russia's foreign trade before the dissolution of the USSR are not reliable statistics on Russia; they have been reconstructed using base statistics for the USSR.

Second, the creation of the Russian state at the end of 1991 transformed trade with the former Soviet republics from internal to external trade. This alone has almost doubled the volume of trade of Russia. The absence of customs and sometimes even state borders with these countries is an obstacle to measuring accurately the real scale of trade. Current estimates for most FSU countries are extremely incomplete, inaccurate, and incomparable. (This chapter does not treat Russia's trade with the FSU countries, except for a brief discussion on trade with the Baltic countries.)

Third, the change in currency by which the foreign trade volume is measured makes comparisons difficult. Before 1992 exports and imports were measured in so-called valuta rubles; since 1992 they have been measured in US dollars. The exchange rate used before 1992 (for instance, R 0.58 per $1 in 1991) did not reflect either the market relation of the two currencies or the purchasing power parity that existed at the time. To compare these data it was, therefore, necessary to recalculate the data of previous years.

Fourth, the quality of the foreign trade statistics must be considered. In spite of the gradual improvement of these statistics, certain types of trade are reflected inadequately or are not reflected at all. Among them are not only the so-called suitcase and shuttle exports and imports and the rapidly expanding private traders' activity, but also operations of the large old (state and semi-state) foreign trade firms. In 1992 public attention was attracted to the heated discussion between the Goskomstat of Russia and the Ministry

of Foreign Economic Relations; each calculated and insisted on its own estimates of the main foreign economic indicators.

Another confirmation of the poor quality of the foreign trade statistics was the considerable deviation of official USSR data from the estimates of the statistical offices of the trading partners. The poor quality of statistics and the increase in smuggling support the appearance of huge, sometimes completely incredible estimates of Russian capital flight.

This chapter is based exclusively on official data produced by the Goskomstat of the Russian Federation; therefore, the reader is advised to bear in mind the above-mentioned limitations.

1.1 Performance of Foreign Trade

Foreign trade performance between 1985 and 1993 is clearly characterized by at least three stages (see *Figure 1.1*, *Table 1.1*).

The first stage was from 1985 to 1988. During this period the tendencies of the preceding period continued. Exports grew but at gradually slowing rates – by 13.2% in 1986, by 8.3% in 1987, and by 5.1% in 1988. Imports were also increasing. The trade balance was positive, although fluctuating from year to year.

The economic crisis in the late 1980s and early 1990s signified the next stage of foreign trade performance. Already in 1989, in spite of an almost 20% increase in the price of oil (Russia's main export), there was no actual growth in the value of exports. Thus, the physical volume of exports had fallen. In 1990 oil prices rocketed again by 28%, but the value of exports dropped by 4.8%. The sharpest decline of exports – by 28.4% – was in 1991, long before the start of economic reform.

A policy introduced by Prime Minister Ryzhkov resulted in massive growth in Russia's external debt in 1989 and 1990. The increase in imports was not adequately balanced with export revenues, which led to a $3.3 billion negative trade balance in 1990. In 1991 this rose to $10.7 billion, or more than 1% of Russian GDP. The lack of additional export resources, as well as the exhaustion of hard currency reserves and the refusal of foreign creditors to release new loans, eventually led to a catastrophic fall in imports in 1991 – by 45.6%.

In 1992 development of the foreign trade crisis was much slower. Registered rates of decline for exports, imports, and total trade turnover were approximately 17%. Due to the considerable worsening of Russian terms of

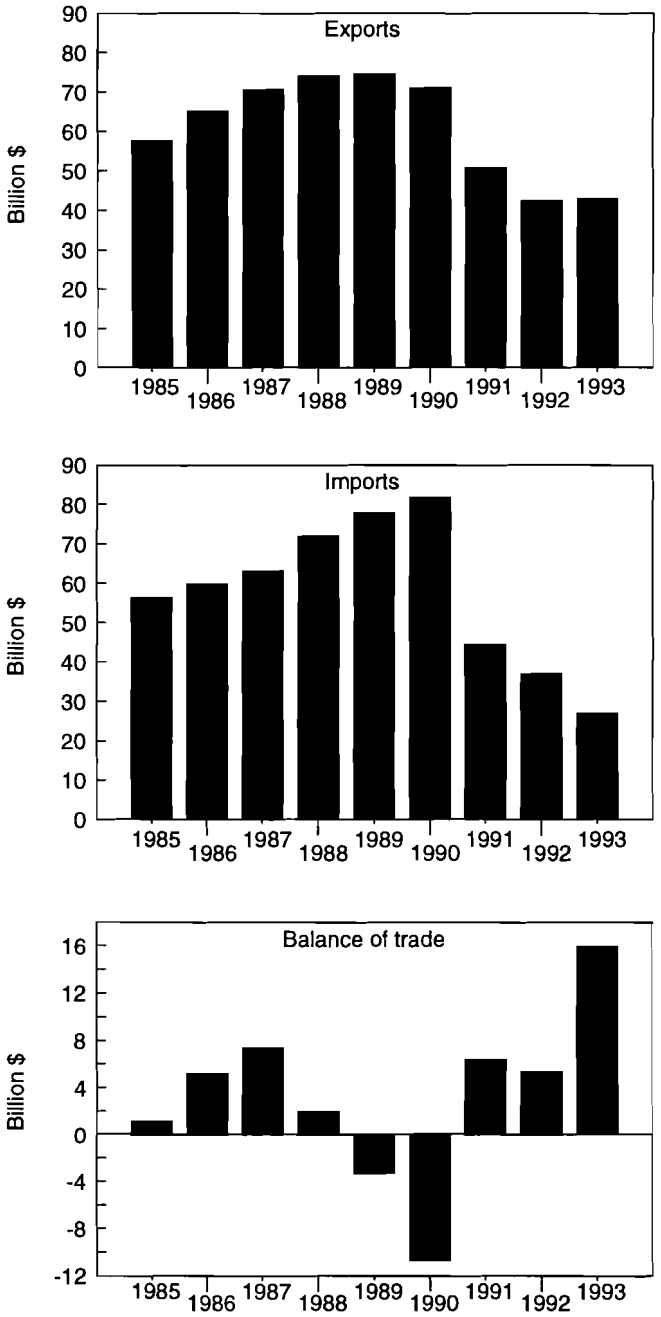


Figure 1.1. Performance of foreign trade between 1985 and 1993.

Table 1.1. Foreign trade between 1985 and 1993.

Year	Total trade	Exports	Imports	Balance
Billion $				
1985	114.0	57.6	56.4	1.2
1986	125.2	65.2	60.0	5.2
1987	133.8	70.6	63.2	7.4
1988	146.4	74.2	72.2	2.0
1989	152.7	74.7	78.0	-3.3
1990	152.9	71.1	81.8	-10.7
1991	95.4	50.9	44.5	6.4
1992	79.4	42.4	37.0	5.4
1993	70.0	43.0	27.0	16.0
As % of previous year: Previous year = 100				
1986	109.8	113.2	106.4	433.3
1987	106.9	108.3	105.3	142.3
1988	109.4	105.1	114.2	27.0
1989	104.3	100.7	108.0	
1990	100.1	95.2	104.9	324.2
1991	62.4	71.6	54.4	
1992	83.2	83.3	83.1	84.4
1993	88.2	101.4	73.0	296.3
As % of 1985: Value in 1985 = 100				
1985	100.0	100.0	100.0	100.0
1986	109.8	113.2	106.4	433.3
1987	117.4	122.6	112.1	616.7
1988	128.4	128.8	128.0	166.7
1989	133.9	129.7	138.3	
1990	134.1	123.4	145.0	
1991	83.7	88.4	78.9	533.3
1992	69.6	73.6	65.6	450.0
1993	61.4	74.7	47.9	1,333.3

trade and massive smuggling, the actual volume of exports was most probably at the same level as the year before.

The third stage began in 1993 with the development of Russian foreign trade. Foreign trade liberalization and the formation of a new institutional structure led to a decisive shift in export performance. Export value increased by 1.4%; and physical quantity, by almost 27%. The decline of imports by 27% reflected a substantial reduction of centralized import subsidies, which made decisions on importation much more rational. Due to the

Table 1.2. Role of foreign trade between 1985 and 1993.

Year	Population in millions	Per capita, $ Total trade[a]	Exports	Imports	Balance
1985	143.5	794	401	393	8
1986	144.8	865	450	414	36
1987	146.0	916	484	433	51
1988	147.0	996	505	491	14
1989	147.7	1,034	506	528	−22
1990	148.2	1,032	480	552	−72
1991	148.3	643	343	300	43
1992	148.6	534	285	249	36
1993	148.5	471	290	182	108
Year	GDP billion $	As % of GDP Total trade[a]	Exports	Imports	Balance
1985	802.9	14.2	7.2	7.0	0.1
1986	840.8	14.9	7.8	7.1	0.6
1987	881.5	15.2	8.0	7.2	0.8
1988	957.2	15.3	7.8	7.5	0.2
1989	1,031.7	14.8	7.2	7.6	−0.3
1990	1,056.2	14.5	6.7	7.7	−1.0
1991	979.5	9.7	5.2	4.5	0.7
1992	827.3	9.6	5.1	4.5	0.7
1993	747.7	9.4	5.8	3.6	2.1

[a]Total trade does not always equal the sum of exports and imports because of rounding.
Source: Author's calculations.

growth of exports and the decline of imports, the trade balance reached a record $16 billion.

A major part of decline in foreign trade volume was caused not by economic reforms; the decline occurred long before the reforms. On the other hand, the positive influence of reform became visible very early in the sphere of external economic relations.

Indicators reflecting the importance of foreign trade in the national economy also show the existence of these three stages (see *Table 1.2*). Between 1985 and 1988 the export share in GDP was growing slowly, from 7.2% to 7.8%. The economic crisis between 1989 and 1992 led to its fall to 5.1% of the GDP. By 1993, the first year of a third stage, this share grew to 5.8%.

Since monthly export and import data between 1991 and 1993 were subject to seasonal fluctuations as well as peculiarities in trade accounting, it is difficult to identify specific characteristics of this trend, but some are

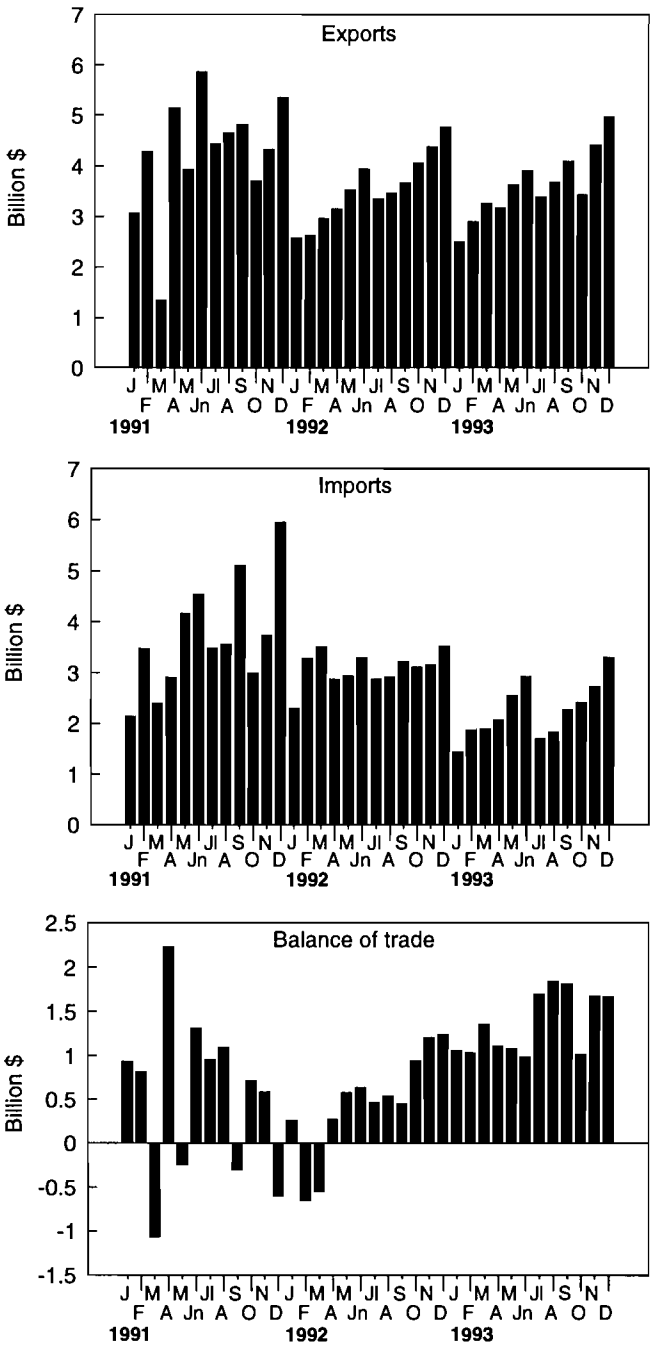


Figure 1.2. Monthly foreign trade between 1991 and 1993.

worth noting (see *Figure 1.2*). In 1992 and 1993 the tendency of a gradual growth of monthly exports within each calendar year can be clearly observed. If monthly export volumes in 1992 were generally less than those in the corresponding months of 1991, the situation changed radically in 1993. In fact, in almost every month of 1993 exports were higher than the year before.

A substantial reduction in import subsidies led to a sharp decrease in monthly imports, from 45% to 62% of the previous year's level in early 1993. However, actual stabilization of the nominal exchange rate and a rapid appreciation (approximately tripling) of the real exchange rate from mid-1993 caused a considerable increase in the competitiveness of imports in the internal market, and consequently led to the growth in imports. In the second half of 1993 the monthly value of imports increased from $1.7 billion to $3.3 billion, and its level relative to the previous year increased from 59% to 94%.

In early 1992 the trade balance was negative, but by April it had turned positive. Since November it has exceeded $1 billion per month, sometimes even being close to $2 billion.

1.2 Regional Structure of Foreign Trade

The radical changes in recent years – such as the dissolution of the CMEA and the USSR, the creation of the Russian state, political revolutions in Central and Eastern Europe, the shift to hard currency as the main vehicle in trade, the weakening of the political emphasis and strengthening of the commercial orientation in Russia's foreign trade – have reshaped the geographical structure of Russia's exports and imports.

Trade with all former centrally planned economies was drastically reduced. Their share in Russia's exports decreased from 50.0% in 1990 to 25.3% in 1993, and their share in imports fell from 50.7% to 28.0% (*Table 1.3*). The reduction of trade with CMEA states was even sharper. The share of Russian exports to these countries decreased by more than half (from 43.2% to 17.3%), and the share of imports from these countries fell to a quarter of its previous level (from 44.4% to 11.3%). The share of another group of centrally planned economies (China, North Korea, Laos, former Yugoslavia) increased from 11.6% of total trade turnover to 14.7%. This last group's share of exports increased slightly (from 6.9% to 8.0%), but its share in Russian imports almost tripled (from 6.3% to 16.7%).

Simultaneously, Russia's trade with market economies grew by almost one-half (from 50.0% in 1990 to 73.6% in 1993 in exports and from 49.3% to

71.6% in imports). The most rapid growth was registered in trade with developed market economies (from 36% to almost 60% in exports and from 40% to 55% in imports). The share of exports to developing market economies remained stable (14.0% in 1990 and 13.7% in 1993), but their share in imports increased substantially (from 9.5% to 16.5%).

Trade with the Baltic countries decreased in 1992 and 1993. This situation reflects the common tendency of diminishing trade contacts among the FSU countries.

The shifts in the continental structure of foreign trade also demonstrate its reshaping in the direction of more balanced geographical parameters. In 1992 and 1993 only Asia increased its share in Russian foreign trade turnover from 16.2% to 28.6%. The shares of trade with Europe and the Americas decreased moderately, while Africa and Australia and Oceania lost about half of their 1990 share by 1993.

Despite changes in the commodity content of Russia's foreign trade its regional structure is beginning to resemble the structure it had in the early 20th century; from the geographical point of view it is becoming more rational and effective. The change in the country structure of trade in 1992 and 1993 confirms these conclusions.

Trade activity with the main partners in Eastern Europe – Poland, the Czech Republic, Slovakia, Bulgaria, Romania, and the former Yugoslav republics – is declining, as is trade with the traditional partners in Western Europe – United Germany, Italy, France, Finland, and the Netherlands. Trade with other nontraditional partners – the United Kingdom, Switzerland, Austria, Belgium, and Ireland – however, is growing rapidly.

The greatest shifts in Russian foreign trade have been in Asia, where the decline of traditional trade and development of nontraditional trade have been observed. Reduction has been especially sharp in so-called politicized trade with Mongolia, North Korea, India, and Syria. In contrast to this, the volume of trade with reforming Vietnam, the dynamically developing Asian tigers (Hong Kong, the Republic of Korea, Singapore, and Taiwan), and in particular China is growing steadily. An explosion of *shuttle* trade is reflected in the increase in turnover with Turkey, the United Arab Emirates, and China, as well as in the lifting of political constraints in trade with Iran and the establishment of a number of Russian companies in the Eastern Mediterranean in the trade with Cyprus.

Politicized trade is wanning also in Africa. For example, trade with Libya fell by 92%, and trade with South Africa increased by 17 times during one year.

Table 1.3. Regional structure of foreign trade between 1990 and 1993.

	Trade volume				Exports			
Region	1990	1991	1992	1993	1990	1991	1992	1993
By type of economy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Former) Centrally planned economies	50.4	30.7	26.2	26.4	50.0	30.0	29.5	25.3
E. Europe, Vietnam, Mongolia, Cuba	43.8	23.7	17.5	15.0	43.2	22.9	19.6	17.3
China, N. Korea, Laos, former Yugoslavia	6.6	7.0	8.7	11.3	6.9	7.0	9.8	8.0
Market economies	49.6	69.3	72.5	72.8	50.0	70.0	68.9	73.6
Developed market economies	38.0	57.3	61.1	58.1	36.0	56.5	58.7	59.9
Developing market economies	11.6	12.1	11.4	14.7	14.0	13.5	10.2	13.7
Baltic countries			1.3	0.8			1.7	1.1
By region								
Europe	72.1	68.2	68.3	62.2	73.9	73.1	73.6	67.9
Asia	16.2	19.1	20.5	28.6	17.9	20.5	20.0	24.5
Americas	9.0	10.1	8.2	7.8	5.0	4.2	3.5	6.6
Africa	2.2	2.0	1.5	1.1	3.1	2.2	1.2	1.0
Australia and Oceania	0.4	0.6	0.1	0.2	0.1	0.0	0.0	0.0

Table 1.3. Continued.

Region	Imports				Balance			
	1990	1991	1992	1993	1990	1991	1992	1993
By type of economy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Former) Centrally planned economies	50.7	31.5	22.5	28.0	55.5	19.4	75.9	20.7
E. Europe, Vietnam, Mongolia, Cuba	44.4	24.5	15.1	11.3	52.6	11.6	49.4	27.3
China, N. Korea, Laos, former Yugoslavia	6.3	6.9	7.3	16.7	2.9	7.9	26.5	–6.6
Market economies	49.3	68.5	76.6	71.6	44.5	80.6	17.5	77.0
Developed market economies	39.7	58.1	63.9	55.1	65.0	45.2	24.1	68.1
Developing market economies	9.5	10.4	12.7	16.5	–20.5	35.4	–6.6	9.0
Baltic countries			0.9	0.4			6.5	2.3
By region								
Europe	70.6	62.7	62.2	53.1	48.9	144.9	148.9	92.6
Asia	14.8	17.4	21.0	35.2	–6.2	42.4	13.8	6.5
Americas	12.4	16.9	13.8	9.9	61.8	–83.0	–64.7	1.1
Africa	1.5	1.9	1.9	1.4	–9.8	4.1	–3.7	0.4
Australia and Oceania	0.7	1.2	0.2	0.4	5.3	–8.3	–0.9	–0.6

Trade with Canada became more balanced. Imports, especially of grain, fell by 67% and exports grew by 36%, so the negative trade balance was cut 10 times – from $899 million to $94 million. Similar shifts occurred in trade with the USA – exports tripled, and imports declined by 50%. As a result the negative trade balance was replaced with a positive one.

The group of Russia's foreign trade partners is still very diversified (*Table 1.4*). The share of Germany, Russia's main trade partner, in total trade turnover was 15.8% in 1993 compare with 16.6% in 1992. Second place was decisively captured by China (10.0% in 1993 compare with 5.8% in 1992). Assuming such rates of growth China may be Russia's primary trade partner in 1994. The third place is occupied by Italy, followed by Japan, the USA, and the United Kingdom.

Half of Russia's foreign trade is undertaken with the top 7 trade partners; 80%, with the top 20; and almost 95% of trade is concentrated in 40 countries.

1.3 Commodity Structure of Foreign Trade

The economic crisis and the economic reform have caused, and are continuing to cause, many changes in the commodity structure of foreign trade (*Table 1.5*). The most important shifts in exports were in the shares of foodstuffs and agricultural raw materials (doubling from 2.1% to 4.2%), metals (from 12.9% to 20.4%), and chemicals (from 4.6% to 6.0%). The share of minerals (primarily oil, oil products, and gas) steadily grew until 1992 (from 45.4% to 54.3%). In 1993, however, it decreased to 51.1%, and was below 50% in early 1994, which could be considered a positive sign. The share of machines, equipment, and transport delivered according to highly politicized contracts to Eastern Europe and friendly developing countries steadily decreased from 17.6% to 7.1%.

In the commodity structure of imports the most important event was the rapid growth of the share of food in 1991 and 1992 due to the real danger of hunger in big Russian industrial cities. Along with stabilization of the economic situation in 1993, the share of foodstuffs imports diminished to 19.7%, even below the share in 1990 (20.3%). Shares of goods for productive purposes declined drastically: machines and equipment from 44.4% to 35.5% and chemicals from 10.9% to 6.1%. The share of consumer goods, however, increased significantly: textile and footwear from 9.3% to 15.9% and leather and furs from 1.0% to 2.0%.

Table 1.4. Russia's main trade partners between 1992 and 1993.

	Trade vol. million $		% of total						Cumulative
			Trade vol.		Exports		Imports		trade vol. %
Country	1992	1993	1992	1993	1992	1993	1992	1993	1993
Germany	12,598	11,091	16.6	15.8	14.4	12.2	19.0	21.6	15.8
China	4,406	6,983	5.8	10.0	6.7	6.9	4.7	14.9	25.8
Italy	6,003	3,832	7.9	5.5	7.3	6.6	8.6	3.7	31.3
Japan	3,249	3,474	4.3	5.0	3.9	5.0	4.8	4.8	36.2
USA	3,578	3,446	4.7	4.9	1.7	4.4	8.2	5.8	41.2
United Kingdom	2,849	3,432	3.8	4.9	5.6	6.5	1.6	2.4	46.1
Hungary	2,595	2,787	3.4	4.0	3.7	5.0	3.1	2.4	50.0
France	3,253	2,375	4.3	3.4	4.8	3.6	3.6	3.0	53.4
Switzerland	1,337	2,062	1.8	2.9	2.1	3.7	1.4	1.7	56.4
Austria	1,647	2,014	2.2	2.9	1.6	3.3	2.8	2.3	59.3
CSFR	3,618	1,963	4.8	2.8	6.4	3.2	2.9	2.2	62.1
Poland	2,878	1,907	3.8	2.7	4.1	3.1	3.5	2.2	64.8
Finland	2,787	1,899	3.7	2.7	3.8	3.2	3.5	1.9	67.5
Turkey	1,032	1,884	1.4	2.7	1.6	2.5	1.1	3.0	70.2
Netherlands	2,645	1,346	3.5	1.9	5.6	2.2	1.0	1.4	72.1
Belgium	1,168	1,301	1.5	1.9	2.2	2.2	0.8	1.3	74.0
Bulgaria	1,749	1,269	2.3	1.8	2.9	2.3	1.7	1.1	75.8
Sweden	1,306	1,144	1.7	1.6	1.6	1.9	1.8	1.2	77.4
Iran	306	1,076	0.4	1.5	0.6	2.3	0.1	0.3	78.9
India	1,391	888	1.8	1.3	1.4	0.8	2.3	2.1	80.2
Afghanistan	298	766	0.4	1.1	0.2	0.1	0.6	2.7	81.3
Singapore	653	750	0.9	1.1	0.4	0.6	1.4	1.8	82.4
Rep. of Korea	957	741	1.3	1.1	0.5	0.9	2.1	1.4	83.4
Former Yugoslavia	1,875	731	2.5	1.0	2.5	0.7	2.4	1.6	84.5
Ireland	139	667	0.2	1.0	0.1	1.4	0.3	0.2	85.4
Cuba	823	660	1.1	0.9	0.5	0.3	1.8	2.0	86.4
Cyprus	373	627	0.5	0.9	0.7	1.2	0.2	0.4	87.3
Romania	1,035	590	1.4	0.8	1.5	1.1	1.2	0.4	88.1
Canada	1,253	576	1.6	0.8	0.4	0.6	3.0	1.2	88.9
Spain	946	558	1.2	0.8	1.3	0.9	1.2	0.6	89.7
Hong Kong	210	488	0.3	0.7	0.2	0.5	0.4	1.0	90.4
Taiwan	213	403	0.3	0.6	0.3	0.6	0.2	0.5	91.0
Norway	494	347	0.7	0.5	0.6	0.6	0.8	0.3	91.5
Denmark	466	342	0.6	0.5	0.7	0.5	0.5	0.5	92.0
Vietnam	191	293	0.3	0.4	0.2	0.3	0.3	0.7	92.4
Egypt	378	266	0.5	0.4	0.3	0.4	0.7	0.4	92.8
Lithuania	596	264	0.8	0.4	1.1	0.5	0.5	0.1	93.2
Thailand	496	263	0.7	0.4	0.7	0.4	0.6	0.3	93.5
Greece	268	262	0.4	0.4	0.6	0.4	0.1	0.3	93.9
UAE	132	258	0.2	0.4	0.3	0.5	0.1	0.1	94.3

Table 1.5. Commodity structure of foreign trade between 1990 and 1993, in percent.

	Exports				Imports			
Commodity group	1990	1991	1992	1993	1990	1991	1992	1993
Foodstuffs, agricultural raw materials (except textiles)	2.1	2.6	2.7	4.2	20.3	27.9	26.6	19.7
Minerals	45.4	51.7	54.3	51.1	2.9	2.9	2.9	3.3
Chemicals	4.6	6.7	6.4	6.0	10.9	12.4	9.8	6.1
Leather, furs	0.1	0.2	0.2	0.2	1.0	1.1	1.7	2.0
Timber, paper, cellulose	4.4	4.7	3.6	4.1	1.1	1.1	1.3	0.7
Textiles, footwear	1.0	1.0	0.7	0.4	9.3	9.9	11.2	15.9
Metals, precious stones	12.9	14.3	16.3	20.4	5.4	6.3	3.4	3.8
Machines, equipment, transport	17.6	10.2	9.3	7.1	44.4	35.5	39.2	35.5
Other	11.8	8.6	6.5	6.5	4.8	2.9	4.0	13.0

1.4 Volume and Price Indices and the Terms-of-Trade Index

Until now we have used data on the value of foreign trade measured in current prices. But changes in world trade prices could be the source of significant distortions in the volume of exports and imports in real terms. For the calculation of volume and price indices and a terms-of-trade index for 1993, 35 groups of comparable export products and 28 groups of import products were selected.

Exports of many goods (cement, asbestos, coal, lignite, oil, oil products, gas, fertilizers, cotton fabrics, diamonds, cast iron, copper, nickel, refrigerators, TVs, cars, trucks) decreased at current prices (*Table 1.6*). But if we measure these exports at constant prices, most have increased. For example, exports of oil in current prices decreased by 4.1%, but in physical volume they increased by 20.4% (from 66.2 to 79.7 million tons). The reason for this was a fall in Russian export prices. The most drastic export price reduction was for nonferrous metals, cast iron, diamonds, wood-processing products, oil and oil products, and fertilizers. This reduction was the unavoidable reaction of the world market to rocketing Russian export volumes, which resulted from the liberalization of Russia's external economic relations and the sharp decline of internal demand caused by conversion and the current economic crisis. The average export price index in 1993 was 79.9% of the previous year, which meant a 20.1% fall in prices.

Table 1.6. Selected exports in 1992 and 1993: value, volume, and prices, in percent.

Export commodity	Indices of flows: Current prices (value index)	Indices of flows: Constant prices (volume index)	Index of prices
Fish, frozen	213.0	235.4	90.5
Phosphates	113.4	155.0	73.1
Cement	32.1	48.0	66.9
Asbestos	72.4	80.1	90.4
Ferrous ores	119.7	128.1	93.4
Coal	84.3	106.4	79.3
Lignite	10.2	6.9	147.8
Coke	129.1	139.5	92.6
Oil	95.9	120.4	79.6
Oil products	82.6	136.1	60.7
Gas	97.6	109.1	89.4
Energy	108.3	125.5	86.3
Ammonia	128.2	125.8	101.9
Methanol	88.4	80.9	109.3
Nitrogen fertilizer	63.8	56.8	112.3
Phosphate fertilizer	72.2	106.1	68.1
Potassium fertilizer	59.9	65.8	90.9
Mixed fertilizer	108.0	151.1	71.5
Rubber synthetics	118.1	122.3	96.5
Timber	122.4	102.7	119.2
Lumber	136.5	161.1	84.8
Plywood	103.1	118.2	87.2
Cellulose	113.1	178.6	63.3
Newsprint	231.4	317.2	72.9
Cotton fabrics	62.1	94.8	65.6
Diamonds	89.5	131.4	68.1
Cast iron	89.2	111.5	80.0
Ferrous alloys	165.8	125.9	131.7
Copper	40.8	105.3	38.8
Nickel	66.9	80.1	83.6
Aluminum	132.2	185.3	71.4
Refrigerators	72.5	78.8	92.0
TVs	13.8	14.1	97.4
Cars	72.2	78.7	91.7
Trucks	92.9	84.6	109.7
Average	95.4	119.3	79.9

Source: Author's calculations.

Comparable developments were recorded in imports (*Table 1.7*). The only difference was the reduction of trade at both current and constant prices. It is important to note the sharp decline in the volume of imports of frozen meat (by 73%), grain (by 62%), potatoes (by 96%), sunflower oil (by 79%), and silk and synthetic fabrics (by 75–76%). On the other hand, imports of citrus fruits grew in real terms by 3.7 times; butter, by 2.6 times; tea, by 10%; footwear, by 28%; and cars, by 10%. The shifts in the structure demonstrate that imports are increasingly being oriented to consumers rather than to producers and that the share of more expensive goods has increased at the expense of cheaper items. The economic reform has started to play its corrective role in the import sphere too.

The changes in import prices were different from the trend of the export prices. Prices of meat, milk powder, coffee, tea, soybean and sunflower oil, and raw and white sugar increased, while prices of butter, citrus fruits, apples, grain, fabrics, footwear, pipes, and cars fell. On average, import prices fell by 6.3%. The changes in export and import prices allow us to define the terms-of-trade index:

$$tt = ep : ip \ ,$$

where tt is the terms-of-trade index, ep is the export prices index, and ip is the import prices index. For 1993 tt equaled 79.9:93.7. Accordingly, in 1993 the terms-of-trade index equaled 85.3, which meant that the terms of trade worsened by 14.7% for Russia. This index shows that a little decrease in import prices only partly reduced the negative influence of a drastic fall in export prices.

Using the indices of physical volumes on a comparable range of export and import goods (*Tables 1.6* and *1.7*) it is possible to calculate the same indices for total exports and imports and total foreign trade (*Table 1.8*). One could estimate to what extent these indices are representative by looking at the shares of these goods in total volumes of exports (68.2–72.5%), in total volumes of imports (20.3–25.3%), and in the total turnover (49.7–50.5%).

The table shows that as a result of the decline in foreign trade prices and the worsening of the terms of trade, the physical volume of trade in real terms increased more than trade in current prices. While exports of all commodities in 1993 in current prices grew by 1.4%, this increase in constant prices was 26.9%; imports in current prices fell by 26.9%, while in constant prices they fell by 22%. The total turnover in current prices decreased by 11.8%, but in constant prices it increased by 4.1%.

Due to the continuing fall in GDP and growth of foreign trade in 1993 one can expect considerable growth in the influence of foreign trade on the

Table 1.7. Selected imports in 1992 and 1993: value, volume, and prices, in percent.

Export commodity	Indices of flows		Index of prices
	Current prices (value index)	Constant prices (volume index)	
Meat, fresh and frozen	28.8	26.7	107.6
Poultry	57.0	56.5	100.9
Milk powder	27.3	24.4	111.9
Butter	226.5	261.1	86.7
Potatoes	4.1	3.6	115.6
Citrus fruits	299.1	365.3	81.9
Apples	65.9	84.6	77.9
Coffee	77.6	37.9	204.9
Tea	119.6	110.4	108.3
Grain	37.4	38.4	97.2
Wheat	33.8	33.6	100.6
Barley	15.0	16.6	90.0
Maize	68.9	75.5	91.3
Meal	5.4	6.8	78.7
Soybean oil	9.5	6.3	150.9
Sunflower oil	24.6	21.0	117.3
Raw sugar	84.7	76.1	111.3
White sugar	90.7	85.2	106.4
Macaroni	14.9	22.5	66.3
Rubber, natural	286.9	296.3	96.8
Silk fabrics	23.8	24.1	98.9
Cotton fabrics	32.1	65.1	49.3
Synthetic fabrics	25.1	25.1	99.8
Footwear	82.4	128.4	64.2
Pipes	149.2	184.1	81.0
Buses	100.5	77.3	130.1
Cars	108.3	110.1	98.4
Trucks	93.6	98.8	94.7
Average	58.8	62.7	93.7

Source: Author's calculations.

national economy. However, the shares of total trade, exports, and imports at current prices do not adequately reflect this shift. To assess more precisely the importance of foreign trade in the national economy it is necessary to compare GDP with exports and imports, not only at current prices but also at constant prices (*Table 1.9*).

From *Table 1.9* one can see an increase in the importance of foreign trade in the national economy. The share of foreign trade in GDP at current

Table 1.8. Indices of total foreign trade in 1992 and 1993.

Indicator	Total turnover	Exports	Imports
At current prices, billion $			
Comparable range of commodities			
1992	40,067	30,718	9,349
1993	34,785	29,292	5,493
All commodities			
1992	79,381	42,391	36,990
1993	70,003	42,971	27,032
Share of comparable commodities in total volume, %			
1992	50.5	72.5	25.3
1993	49.7	68.2	20.3
Indices of growth, %			
Comparable range of commodities			
At current prices	89.6	95.4	58.8
At constant prices	106.1	119.3	62.7
All commodities			
At current prices	88.2	101.4	73.1
At constant prices	104.1	126.9	78.0
Terms-of-trade index, %	85.3	79.9	93.7

Source: Author's calculations.

Table 1.9. Growth of the weight of foreign trade in 1993.

Indicator	GDP	Total trade turnover	Exports	Imports	Balance of trade
Volume at current prices, billion $					
1992	827.3	79.4	42.4	37.0	5.4
1993	747.7	70.0	43.0	27.0	16.0
Volume at constant 1992 prices, billion $					
1992	827.3	79.4	42.4	37.0	5.4
1993	728.0	82.7	53.8	28.9	24.9
As % of GDP at current prices					
1992	100.0	9.6	5.1	4.5	0.7
1993	100.0	9.4	5.8	3.6	2.1
As % of GDP at constant 1992 prices					
1992	100.0	9.6	5.1	4.5	0.7
1993	100.0	11.4	7.4	4.0	3.4

Source: Author's calculations.

prices decreased from 9.6% to 9.4%, but at constant prices it grew from 9.6% to 11.4%.

1.5 Conclusion

Two years of economic reforms have led to substantial positive changes in Russia's foreign trade. After a number of years of decline, exports grew in 1993 at both current and constant prices (despite a worsening in the terms of trade). Significant differences between world and internal price levels caused record growth in the positive trade balance.

Shifts in the geographical structure of Russia's trade reflect a decisive move away from politicized and consequently ineffective trade contacts and partners of the pre-reform era, and the rapid transition to more rational commercial relations. Despite inertia in the adjustment of the commodity structure of foreign trade, the commodity composition is becoming more efficient for both exports and imports.

In 1992 and 1993 the Russian economy became much more open not only from the point of view of institutional liberalization, but also from the point of view of its higher integration into the world economy. This means that the world market can now have a much stronger influence on the Russian economy. Such influence can be the best and the strongest incentive for further economic transformation and market adjustment in Russia.

Chapter 2

Russian Foreign Trade Reflected in Statistics

Peter Havlik

Soviet statistics (foreign trade statistics, in particular) have never been reliable or complete. With the abolishment of the transferable ruble in January 1991, the dismantling of the CMEA in June 1991, the dissolution of the USSR in December 1991, and the start of radical reforms (essentially the price liberalization) in January 1992, a completely new political, systemic, and institutional framework has emerged. Furthermore, the abolishment of the foreign trade monopoly and frequent changes in the exchange rate system during 1991–1992 have brought additional accounting problems. It would be a miracle if all these major institutional and systemic changes (apart from the general chaos) had not further deteriorated the quality and reliability of trade statistics.

Russian foreign trade statistics have recently become even more blurred than before; this is in part due to the switch from direct reporting by a comparatively small number of trade organizations to collection of data through customs-based statistics. This paper attempts to assess recent developments in Russian foreign trade using available statistics from Russian, former Soviet Union (FSU), and other sources.[1]

2.1 Trade Shifts from the "Near" to "Far" Abroad

Politicians did not work out a replacement for the arm's-length trade and payments system for the time after the dismantling of the Soviet Union. Consequently, there has been a collapse of interstate trade (trade with the "near" abroad in Russian terminology). These trade relations were historically of great importance not only to Russia but even more so to the Ukraine and Belarus, not to mention Central Asia and the Caucasus. In 1990, Russia's total trade (that is, trade with both "near" abroad and "far" abroad) was about 40% of GDP in domestic prices (exports, 17%; imports, 22%); interstate imports were 47% of total imports and interstate exports were 70% of total exports. In 1991, both total exports and imports dropped to 14% of GDP; interstate imports were 58% of the total and interstate exports were 74% of the total. In 1992, the nominal share of the "near" abroad in total trade dropped to some 18% (*Tables 2.1* to *2.3*, *Figures 2.1* and *2.2*), while exports and imports in terms of GDP increased to 50% and 46%, respectively. The discrepancy in shifts of trade shares between "near" abroad and "far" abroad and the huge jump in trade as a share of GDP during 1991–1992 is, *inter alia*, attributable to the massive depreciation of the official ruble/dollar exchange rate (from R 1.746 per $1 in 1991 to R 171 per $1 in 1992 annually on average) and to low domestic ruble prices that were still employed in interstate transactions with former Soviet republics.[2] Despite a huge drop in the nominal share of interstate trade, we have to bear in mind that trade policies toward the "near" abroad have a considerable impact on Russian foreign trade.

Indeed, more interesting than the share data is their current context, namely, huge drops in volume. The aggregate (and partly inconsistent) statistics reported by Russian Goskomstat indicate that until 1992 there was a lower volume decline in interstate trade than in trade with the "far" abroad. In 1992 the volume of interstate deliveries (Russian exports to the FSU) dropped by only 7% and foreign exports dropped by 26%. Russian imports from the FSU declined by 12%, imports from the "far" abroad decreased by 22% (*Table 2.1*).[3] Nevertheless, interstate deliveries of consumer goods were only 45% of the 1989 level in 1992, with imports of consumer goods from neighboring republics into Russia collapsing to only 21% of that level. Disaggregated data on FSU trade in certain products (sugar, TVs, cars, meat) show similar catastrophic declines in interstate trade between 1991 and 1992.[4] According to recently reported dollar values of trade, Russian

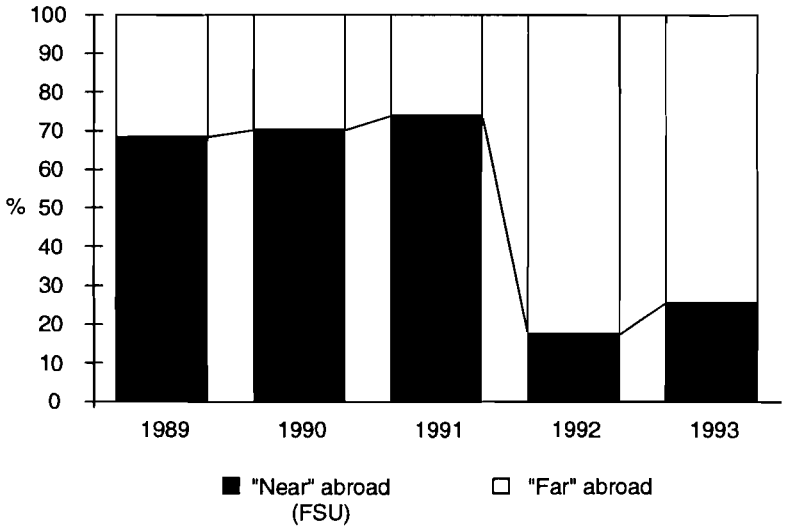


Figure 2.1. Structure of Russian exports. Sources: Russian statistics and Vienna Institute for Comparative Economic Studies.

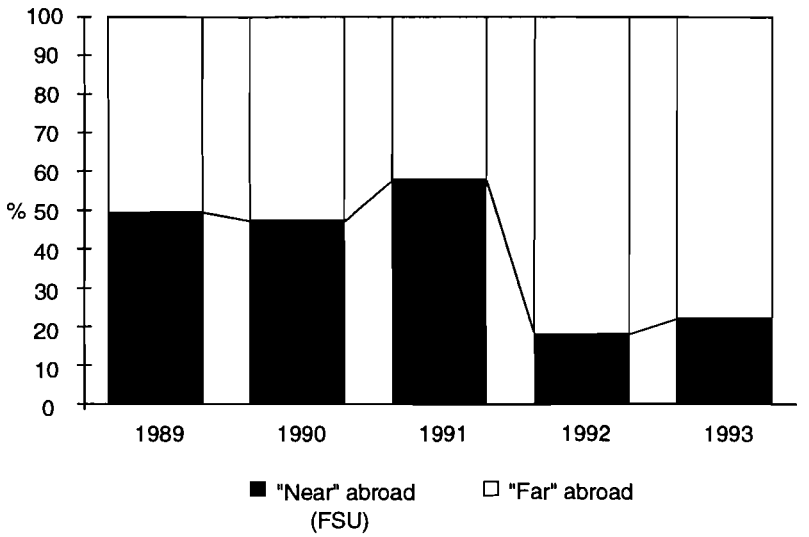


Figure 2.2. Structure of Russian imports. Sources: Russian statistics and Vienna Institute for Comparative Economic Studies.

Table 2.1. Russian trade including trade with former Soviet republics, in billion rubles at current domestic prices.

						Real change in %[b]	
	1989	1990	1991	1992	1993[a]	1992–91	1993–92
Total exports	110	107	186	8,886	54,470	–23	–5
"Near" abroad	75	75	137	1,533	13,870	–7	–46
"Far" abroad	35	32	49	7,353	40,600	–26	8
Total imports	144	143	182	8,230	39,221	–20	–22
"Near" abroad	71	67	105	1,475	8,621	–12	–43
"Far" abroad	73	75	77	6,755	30,600	–22	–16

[a]Data on foreign trade in 1993 are estimates converted to rubles from US dollars ($1 = R 928).
[b]Estimated.
Sources: year 1989, *Narkhoz SSSR 1990*, Moscow, 1991, p. 636; year 1990, World Bank database (D. Tarr); year 1991, *RF v 1992 godu*, Goskomstat RF, Moscow 1993, pp. 38–39; year 1992, Goskomstat RF, *Economic Overview*, No. 1, 1993, pp. 38–39; year 1993, Goskomstat RF, *Economic Overview*, No. 1, 1994, p. 93.

Table 2.2. Russian trade including trade with former Soviet republics, shares of regions in percent.

	1989	1990	1991	1992	1993[a]
Total exports	100.0	100.0	100.0	100.0	100.0
"Near" abroad	68.2	70.1	73.7	17.3	25.5
"Far" abroad	31.8	29.9	26.3	82.7	74.5
Total imports	100.0	100.0	100.0	100.0	100.0
"Near" abroad	49.3	46.9	57.7	17.9	22.0
"Far" abroad	50.7	52.4	42.3	82.1	78.0

[a]Data on foreign trade in 1993 are estimates converted to rubles from US dollars ($1 = R 928).
Sources: see *Table 2.1*.

exports to the "far" abroad were 60% of the 1990 level in 1992, and foreign imports were 45% of the 1990 level (*Tables 2.4* and *2.5*). Trade implosion with both "near" abroad and "far" abroad has been considerable.

What happened to trade in 1993? Due to output trends that are still highly negative and the desire to generate hard currency, all FSU republics (Russia, in particular) introduced incentives to reduce interstate deliveries and to charge what the market will bear for them, while expanding trade with the "far" abroad as much as possible. Again, the evidence on the outcome of this action is fragmentary. Tougher credit policies and higher prices were first imposed by Russia on the Baltic states and the Ukraine, with

Table 2.3. Russian trade including trade with former Soviet republics, in percent of GDP.

	1990	1991	1992	1993[a]
Total exports	16.6	14.3	49.1	33.6
"Near" abroad	11.6	10.5	8.5	8.5
"Far" abroad	5.0	3.8	40.6	25.0
Total imports	22.0	14.0	45.5	24.2
"Near" abroad	10.4	8.1	8.1	5.3
"Far" abroad	11.6	5.9	37.3	18.9
GDP (billion rubles)	644.0	1,300.0	18,100.0	162,300.0

[a]Data on foreign trade in 1993 are estimates converted to rubles from US dollars ($1 = R 928).
Sources: see *Table 2.1*.

Table 2.4. Russian trade with "far" abroad by regions, in million dollars.

	1990	1991	1992	1993[a]
Total exports	71,148	50,911	42,391[b]	43,711
Former socialist[a]	35,599	15,249	11,980	11,540
Developed economies	25,584	28,764	23,843	26,183
Developing economies	9,965	6,898	4,144	5,988
Total imports	81,751	44,473	36,990	32,959
Former socialist[a]	41,482	13,997	7,929	9,360
Developed economies	32,480	25,857	22,555	18,160
Developing economies	7,789	4,619	4,497	5,440

[a]Estimated. In 1993 former socialist countries included Baltic states.
[b]The sum of addends do not equal total due to inconsistencies in original data.
Sources: *RF v 1992 godu*, Moscow, Goskomstat RF, 1993, p. 50; Goskomstat RF, *Ekonomicheskyi obzor*, No. 1, 1994, pp. 86–88. *Finansovye Izvestiya*, 28 April 1994, pp. I–II.

Table 2.5. Russian trade with "far" abroad by regions, 1990 = 100.

	1990	1991	1992	1993
Total exports	100.00	71.56	59.58	61.44
Former socialist[a]	100.00	42.84	33.65	32.42
Developed economies	100.00	112.43	93.19	102.34
Developing economies	100.00	69.22	41.59	60.09
Total imports	100.00	54.40	45.25	40.32
Former socialist[a]	100.00	33.74	19.11	22.56
Developed economies	100.00	79.61	69.44	55.91
Developing economies	100.00	59.30	57.74	69.84

[a]Estimated. In 1993 former socialist countries included Baltic states.
Sources: see *Table 2.4*.

the excuse that they were no longer part of the ruble zone. In the second half of 1993, these measures were then imposed on other FSU republics after attempts to form a new "ruble zone" had failed. An unavoidable short-term result has been an accelerated drop in the volume of interstate trade; the size of the drop crucially depends on the extent to which Russia continues to selectively grant subsidies or trade credits or both. Aggregate data on interstate trade are scarce; Russian trade turnover with the FSU allegedly dropped by half between 1991 and 1993. The Ukraine accounted for 40–50% of Russian trade with the "near" abroad in 1993.[5] Assuming that these volume changes of interstate trade are correct, trade with the "near" abroad dropped by more than 40% in 1993 (*Table 2.1*). After adding dollar foreign trade data (converted at the official exchange rate of R 928 per $1) to published ruble data on trade with the "near" abroad, preliminary estimates indicate that the share of the "near" abroad was about 22–25% of Russia's total trade in 1993 (*Table 2.2*, *Figures 2.1* and *2.2*). Actual volume shares of the "near" abroad in total trade are probably even higher, as intra-CIS export prices were still lower than ruble prices achieved in foreign trade with "far" abroad after conversion with the highly inflated ruble/dollar exchange rate. Thus, for instance, out of 127.4 million tons of crude oil exported by Russia in 1993, some 37% went to the "near" abroad; out of 171.2 billion cubic meters of natural gas exported in 1993, 46% went to the "near" abroad, albeit at substantially lower prices than the "far" abroad export price.[6] Nevertheless, shifts from the "near" to the "far" abroad are evident: during 1993 Russian crude oil exports to the "near" abroad declined by about 36% in volume, whereas exports to the "far" abroad increased by 20% compared with the previous year. Russian natural gas exports to the "near" abroad declined by 26%, while exports to the "far" abroad increased by 5%.[7] Similar, if not greater, shifts occurred in coal and mineral fertilizer sectors, and Russian exports of consumer goods to other republics declined by more than 60%.[8]

The shifts in shares between the "near" abroad and the "far" abroad must be seen in the context of sharply lower overall trade volumes. Despite limited information, one may safely conclude that Russian trade has suffered two major shocks so far: the first one in 1991 from the collapse of the CMEA, which affected the trade volume with the "far" abroad; and the second one during 1992–1993 when the FSU and the ruble zone gradually disintegrated. In both cases the volume of trade with the region affected dropped substantially. Contrary to what happened in most East European countries after the collapse of the CMEA (and more recently in the Czech Republic after the breakup of the Czech and Slovak Federation), the Russian

trade implosion so far has not led to increased trade with the "far" abroad. Apart from selected (but important) exports of commodities, such as fuels, electricity, timber, cellulose, aluminum, and other raw materials, overall Russian trade, especially imports, declined substantially between 1991 and 1993 (rough estimates are –38% for imports and –27% for exports).

It should be stressed that at present both reporting and pricing are chaotic which makes trade data extremely unreliable; any assessment on trends must be taken as preliminary. It is too early to determine if the republics' interstate trade collapse is over; a further collapse may still lie ahead, especially if we take into account that Russia's degree of subsidization of raw material export prices to the republics and cheap credits for their trade deficits have become major points of argument not only from the people around Yeltsin, but also from nationalists in the new parliament who are using these difficulties to threaten the republics and to bring them back in line. Simultaneously, the importance of trade with the "near" abroad is still considerable (anywhere between 25% and 50% of the total), and any analysis of foreign trade developments cannot disregard this fact.

2.2 Implosion in Trade with the "Far" Abroad After 1990

We now look at what happened to Russian foreign trade proper (that is, trade outside the former Soviet Union or the "far" abroad). Until 1993, Russian exports dropped by almost 40% from their (possibly overstated) peak of $71.1 billion in 1990.[9] The reduction of imports was even more dramatic, since Russian imports in 1993 ($32.9 billion according to the latest revision) were about 40% of the 1990 level and the trade balance turned from a deficit to a huge surplus (*Table 2.4*). A major trade decline occurred between 1990 and 1991 as trade with former socialist countries (especially the CMEA) was cut by more than half. Accounting for 43% of Russian exports and 44% of its imports in 1990, the former CMEA lost its special treatment after the abolishment of the transferable ruble in 1991. Only in that year did the former CMEA's share in Russian exports dropped to 29% (import share: 31%). Trade with the former socialist countries declined further during the following years. By 1993, the developed West's share reached 58% in Russian exports and more than 60% in imports (*Figures 2.3* and *2.4*).

Foreign trade developments between 1990 and 1993 can be summarized as follows: the reduction of Russian exports resulted mostly from massive

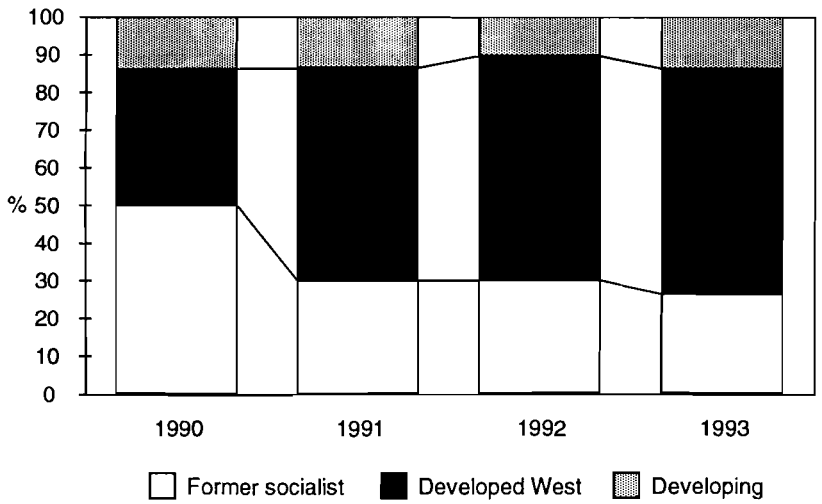


Figure 2.3. Structure of Russian exports to "far" abroad by regions. Sources: Russian statistics and the Vienna Institute for Comparative Economic Studies.

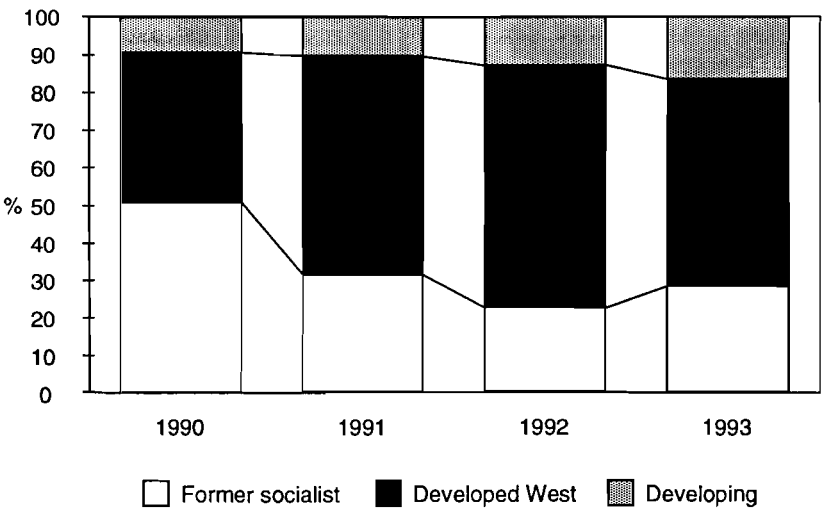


Figure 2.4. Structure of Russian imports from "far" abroad by regions. Sources: Russian statistics and the Vienna Institute for Comparative Economic Studies.

cuts in "traditional" exports to the former socialist and developing countries; exports to the West remained somewhat stable. Cuts in imports have affected all regions, though again suppliers from the former socialist camp have been hit hardest. As in the case of the shifts in trade between the "near" abroad and the "far" abroad discussed in Section 2.1, we cannot at present discern any reorientation of Russian foreign ("far" abroad) trade away from the collapsed former "socialist" markets. The shifts in the shares of individual regions in Russian foreign trade have so far resulted not from reshuffling the markets, but rather from a nominal expression of the general trade implosion.

2.3 How Reliable are Global Foreign Trade Data?

This is a legitimate question. Apart from the abolishment of the transferable ruble and the artificial CMEA price mechanism that affected both volume and structure comparisons between 1990 and 1991, the establishment of Russia as an independent state in December 1991, the lack of border controls after the dissolution of the USSR, and the new trade liberalization measures were all detrimental to the quality of foreign trade statistics. Until 1991 separate Russian foreign trade statistics hardly existed. The first trade statistics for Russia (data for 1991) were published in early 1992. The Russian share in the former Soviet Union's trade was estimated at 78.9% for exports and 57.8% for imports, in 1991. Exports were put at R 64.200 billion, and imports were at R 44.700 billion (converted from dollars at the commercial exchange rate).[10] However, more recent trade figures estimate the 1991 exports at valuta R 9.559 billion and imports at valuta R 25.821 billion.[11] Theoretically, the commercial exchange rate data should be three times higher than the valuta ruble data, but this was not the case; the published commercial ruble exports were only 2.17 times higher than valuta ruble exports (an analogous coefficient for imports was 1.73). Dollar trade figures published subsequently put 1991 exports at $50.911 billion and imports at $44.473 billion.[12] The implicit ruble/dollar commercial exchange rate was 1.26 for exports and 1.05 for imports; it differed widely from what it should have been (about 1.7). Clearly, multiple exchange rates were used for the conversion of different transactions.

In 1992, problems of a different nature came to the fore. Disputes between the Russian Goskomstat and the Ministry of Foreign Economic Relations about their respective trade figures have been widely publicized. The former body reported an export decline by 35% and a reduction of imports

by 17% between January and September 1992 compared with the same period of the previous year. The Ministry claimed an increase (exports, +4%; imports, +10) for the same period.[13] Major differences existed mainly in the assessment of the volume of oil exports and of sugar imports. Aven (Minister of Foreign Economic Relations in 1992) claimed that Goskomstat takes into account only "traditional" exporters and disregards re-exports of Russian goods, for example, via the Ukraine.[14] Exports for 1992, as a whole, were first reported at $38.1 billion (25% less than in 1991) or R 7.353 trillion; imports were reported at $35 billion (–21%) or R 6.755 trillion.[15] The implicit exchange rate used for conversions was R 193 per $1 instead of R 171 per $1 calculated in this paper from an average of weekly quotations. The 1992 export figure was later revised, first to $40 billion, then to $42.4 billion (–16.7% as compared with 1991); imports were revised to $37 billion (–16.8%); and no new ruble data have been published so far.[16]

Different trade figures were released for 1993 as well. Exports were first put at $43 billion (+1.4% against 1992), and imports were at $27 billion (–26.9%); again no ruble data were given.[17] These figures allegedly include trade conducted by private persons which was estimated by the Russian Goskomstat to amount to $5.5 billion for exports and $9.5 billion for imports between January and November 1993.[18] Curiously enough, the same export and import data (customs statistics) were also used in the balance of payments published in the same source; "errors and omissions" were estimated at $7.6 billion. Well-informed experts admit that foreign trade statistics cover only about 80% of the actual trade volume, with considerably higher underreporting of imports.[19] The April 1994 update of the foreign trade statistics puts 1993 Russian exports at $43.7 billion (+3.1% against 1992) and imports at $32.9 billion (–10.9%). The revised import figures include adjustments for barter trade and a highly questionable estimate of unregistered imports ($6 billion) based on partner country statistics.[20]

2.4 Comparison with Partner Country Statistics

A crude tool for checking the reliability of Russian trade statistics is to compare them with partner country data. For total trade this does not bring us much closer to an accurate estimate because trade statistics of Russian partners in the "near" abroad are either completely lacking or even more unreliable than those provided by Russia. Checking the Russian data with statistics from "far" abroad partners is not easy either; most countries still do not report their trade with Russia separately. Using partner country data on

trade with the former Soviet Union in 1992, the IMF hints at the possibility that Russian trade data are indeed understated. Whereas partner country statistics indicate that exports to and imports from the former Soviet Union increased during 1992 (by 6.8% and 4.8%, respectively),[21] both CIS and Russian sources claim a double-digit decline. Even if we take the most recent CIS and Russian statistics, CIS exports declined by about 12% and imports decreased by 25% in 1992; Russian exports and imports in that year dropped by about 17% each.[22] Russia accounted for 81% of CIS exports and for 83% of imports in 1992. Again, the explanation for these discrepancies could be that CIS trade is underreported since the Baltic states' trade is (at least officially) too small to explain the discrepancy.

Unfortunately, partner country data are scarce. *Table 2.6* presents data on 11 countries that reported their trade with Russia separately in 1992. These 11 countries accounted for more than 50% of Russian trade with the "far" abroad. Curiously, the sum of their reported trade is almost identical with Russian statistics, but the differences regarding reports by individual countries are considerable. Germany, Italy, and France seem to have overreported Russian exports by a wide margin, whereas the United Kingdom, the Netherlands, and especially Switzerland recorded much smaller exports than Russia. The picture for imports is similar, though the reporting differences are even bigger. Moreover, the pattern of overreporting or underreporting varies in exports and imports by country, and one cannot explain the differences simply as difficulties in establishing a proper country of origin.

A comparison with the IMF's *Directions of Trade* (DOT) statistics on the former USSR shows that most Western trading partners apparently have great difficulties in identifying the origin of imports from the former USSR. Even more alarming is that a comparison of the data for the first half of 1993 does not show any convergence between Russian and partner country sources (*Table 2.7*). There is some evidence that the degree of Russian underreporting has increased considerably (especially regarding imports). Unfortunately, no definitive conclusions can be drawn at the moment, and the above-mentioned Russian import adjustment ($6 billion in 1993) must be treated with a great caution.

2.5 Summary Assessment

Given the existing uncertainties (for example, in barter deals) and the underreporting of both exports (capital flight) and imports (such as, customs tax evasion by private importers), the available Russian trade figures must

Table 2.6. Russian foreign trade with main partners in 1992, in million dollars.

	Exports		Russ./Partner	Imports		Russ./Partner
	Russian data	Partner data	in %	Russian data	Partner data	in %
Germany	5,873	7,438.9	78.95	6,725	7,409.5	90.76
Italy	2,951	3,984.3	74.07	3,052	2,682.6	113.77
CSFR	2,598	2,600.0	99.92	1,020	800.0	127.50
United Kingdom	2,287	1,183.7	193.21	562	801.7	70.10
Netherlands	2,277	1,100.4	206.92	368	684.0	53.80
France	1,967	3,191.2	61.64	1,286	1,877.3	68.50
Poland	1,648	1,372.5	120.07	1,230	728.4	168.86
Switzerland	857	239.9	357.23	480	190.4	252.10
Austria	657	682.5	96.26	991	625.8	158.36
USA	694	709.3	97.84	2,884	3,093.0	93.24
Romania	605	591.6	102.27	431	402.7	107.03
Total of above	22,414	23,094.3	97.05	19,029	19,295.4	98.62
Total reported	42,391			36,690		

Russian data: Vneshneekonomicheskiye svyazi Rossiiskoy Federatsii, Moscow 1993. Partner data: UN Comtrade Database and national statistics.

Table 2.7. Russian foreign trade with main partners in the first half of 1993, in million dollars.

	Exports		Russ./Partner	Imports		Russ./Partner
	Russian data	Partner data	in %	Russian data	Partner data	in %
Germany	2,370	3,320.0	71.39	1,835	3,081.0	59.56
Italy	1,384	2,388.9	57.93	475	904.7	52.50
CSFR[a]	1,053	1,171.8	89.86	204	341.7	59.70
United Kingdom	868	570.1	152.25	308	390.0	78.97
Netherlands	394	454.5	86.69	130	439.3	29.59
France	742	1,433.2	51.77	555	737.5	75.25
Switzerland	543	115.5	470.13	229	95.7	239.29
Austria	655	315.3	207.74	264	246.2	107.23
USA	669	749.0	89.32	672	1,132.3	59.35
Romania	273	304.0	89.80	64	87.0	73.56
Total of above	8,951	10,822.3	82.71	4,736	7,455.4	63.52
Total reported	18,068			9,434		

[a]Total of former republics.

Russian data: Vneshneekonomicheskiye svyazi Rossiiskoy Federatsii, Moscow 1993. Partner data: UN Comtrade Database and national statistics.

be treated with extreme caution. Still, there is hardly any doubt that Russian trade with both "near" abroad and "far" abroad declined considerably during the past two to three years. Compared with 1990, Russian foreign exports declined by some 40% on a current dollar basis until 1993 and foreign imports dropped by about 60%. Despite such unprecedented declines, the Russian economy's openness seems to have increased. Converted at the annual exchange rate of R 928 per $1, in 1993 exports to the "far" abroad amount to some R 40 trillion and imports from the "far" abroad totaled R 30 trillion, so that the 1993 foreign exports amount to an estimated 25% of the Russian GDP and imports to, 18% of the Russian GDP (in 1990 the corresponding export share in GDP was 5% and the import share was 11.6% see *Table 2.3*). If one includes trade with the "near" abroad, the Russian economy's openness is even higher: some 34% measured by the export share in GDP, and 23% measured by the import share.

These percentages are quite high for such a large country, though doubtlessly inflated by the undervalued exchange rate. The two major shocks, the collapse of the CMEA in 1991 and FSU disintegration during 1992–1993, have not led to the reorientation of trade; the overall trade volume has declined considerably as well. Whereas Russian exports outside the FSU are now roughly equal to the combined exports of the former CMEA East European countries ($46 billion in 1993, excluding the former GDR) its imports are much lower (Eastern Europe: $55 billion).[23] An increase in trade with the "far" abroad, especially in Russian imports, can be expected. However, foreign trade developments will be affected by policy changes in the still rather substantial exchanges with partners in the FSU.

Notes

[1] Russia still treats only trade outside the former USSR as foreign trade. This is, on the one hand, due to accounting problems (unreliable customs controls) and, on the other hand, due to the special treatment of the former Soviet republics as "near" abroad. In this paper I argue that trade with the "near" abroad has considerable influence on foreign trade.

[2] At constant (1991) prices, 1992 Russian exports to former Soviet republics amount to 80–90% of Russia's total exports, and interstate imports increase to more than 60% of all imports. An interesting indication of the implicit price development can be taken from *Table 2.1*. Whereas prices in interstate trade increased 11–15 times between 1991 and 1992 (about the same as the Russian implicit GDP price deflator), ruble prices in trade with "far" abroad partners skyrocketed owing to the ruble devaluation, rising 200 times in exports and 110 times in imports. While the Russian terms of interstate trade declined by about 25% in 1992, largely because of restraint with respect to ruble energy

price increases, they increased by approximately 80% in foreign trade (these rough estimates disregard, *inter alia*, shifts in the commodity composition of trade).

[3] Goskomstat RF, *Economic Overview*, No. 1, 1993, p. 39.

[4] See H. Boss and P. Havlik, "Russia, Ukraine and Belarus: Output Slump and Trade Breakdown Set the Stage for Policy Changes," *WIIW Research Report*, No. 204, February 1994.

[5] For the latest available statistics, see Goskomstat RF, *Economic Overview*, No. 1, 1994, pp. 89–93.

[6] In his contribution to the IIASA workshop on which this book is based, Glaziev, the former Minister of Foreign Economic Relations, quotes even higher figures for Russian trade with the FSU in 1993 (exports, $53.5 billion; imports, $43.7 billion). Based on his data, Russian trade with the "near" abroad still exceeds 50% of the total (see S. Glaziev, "Trade Policy Instruments in Practice and the Future Role of Tariff and Non-Tariff Instruments," Paper presented at the workshop International Trade Issues of the Russian Federation, IIASA, Laxenburg, May 1994).

[7] Russian Goskomstat, *Economic Overview*, Moscow, No. 1, 1994, p. 83.

[8] *CIS Statistical Bulletin*, No. 24, Moscow, 1993, pp. 67–101.

[9] This figure is derived from 1990 foreign trade data converted from "valuta" rubles at the official exchange rate of R 0.585 per $1.

[10] *Ekonomika i zhizn*, No. 13, 1992, p. 15. The commercial rate (R 1.75 per $1) was introduced in November 1990 at a level three times higher than the official rate (R 0.58 per $1) to replace the latter in current transactions; see "The Economy of the Former USSR in 1991," *Economic Review*, IMF, Washington, DC, April 1992.

[11] These figures were derived from the official exchange rate; see *Narodnoye khozyaystvo RF, 1992*, Goskomstat RF, Moscow, 1992, p. 48.

[12] See *Rossiiyskaya Federatsiya v 1992 godu*, Goskomstat RF, Moscow 1993, p. 50.

[13] Similar problems are faced to varying degrees by all reforming countries in Central and Eastern Europe. Major discrepancies exist especially between balance-of-payments and customs statistics on foreign trade for Poland.

[14] *Izvestiya*, 30 November 1992, and 4 December 1992, p. 2.

[15] Goskomstat RF, *Economic Overview*, No. 1, Moscow, 1993, pp. 37–39.

[16] *CIS Statistical Bulletin*, Moscow, No. 2, 1994, p. 10.

[17] Goskomstat RF, *Economic Overview*, No. 1, 1994, p. 89.

[18] *CIS Statistical Bulletin*, Moscow, No. 24, 1993, p. 29.

[19] *Ekonomika i Zhizn*, No. 4, 1994, p. 6.

[20] *Ekonomika i Zhizn*, No. 16, 1994, p. 5.

[21] See *Russian Federation Economic Review*, IMF, Washington, DC, June 1993, p. 42. The IMF's *Directions of Trade* reports that for the former USSR exports totaled $47.5 billion (+4.2%) and imports amounted to $46.6 billion (–5.2%).

[22] *CIS Statistical Bulletin*, No. 2, Jan. 1994, p. 10; *CIS Statistical Yearbook*, Moscow, 1993, p. 10.

[23] *The Vienna Institute Monthly Report*, No. 3, 1994, p. 12.

Chapter 3

A Critical Assessment of the Structure of Russian Foreign Trade Statistics

Masaaki Kuboniwa

More than two years have passed since Russia began to challenge marketization in its move toward capitalism after the collapse of the Soviet Union in late 1991. Between 1992 and 1993 the difficult economic situation in Russia was due to the intrinsic problems arising in the reconstruction of the state, as well as to the usual difficulties associated with the process of the transition to a market economy.

The collapse of the centralized Soviet system and the ongoing privatization should be welcomed in principle. However, they have introduced serious drawbacks to the Russian statistical system, owing to the collapse of centralized data collection and to the continued macroeconomic imbalances, including inflation and depreciation. The required move from the MPS (material products system) to the SNA (system of national accounts) and changes in the taxation and exchange systems have increased the difficulties of the statistical system, but these changes are necessary for a well-organized market economy. For instance, the 1992 official GDP was revised twice by Goskomstat RF (the State Statistical Commission of the Russian Federation) in a jump-and-drop manner in 1993: the first figure was R 15 trillion, the second R 20 trillion (a 33% increase), and the final one R 18.1 trillion (a 10% decline). This action was taken mainly to deal with the intricate treatment of "increase in stocks" (inventories) under a hyperinflationary

situation. Starting with the data for 1993, unregistered retail sales and foreign trade turnover were added to the official figures of registered retail and foreign trade turnover. This reflects one aspect of the liberalization of trade activities. Although statistical difficulties are evident in almost all the items, the most outstanding ones can be found in Russian foreign trade statistics. This paper emphasizes the difficulties of analyzing Russian statistics after the collapse of the Soviet Union. By this I do not mean to imply that the traditional Soviet statistics, including national income and foreign trade, were more accurate than present Russian statistics; however, in this study I confine the analysis to recent events.

The objective of the paper is to develop an analysis of the structure of Russian foreign trade during the initial stages of the transition to an open market economy, clarifying the key problems inherent in the foreign trade statistics in the framework of national accounts. Macro data of Russian foreign trade with third-party countries – that is, countries other than the republics of the former Soviet Union (FSU) – are presented and investigated in US dollars and in ruble-based foreign trade prices, which are close to world market prices. Pointing out considerably different results from different data in 1991, the paper then clarifies the remarkable change in Russian dependence on foreign trade in 1992 and 1993. In the next section observations are presented on the foreign trade data in relation to the national income and product accounts (NIPA) and the input–output (I–O) accounts. Next, we consider the differences between two preliminary, but essential, types of foreign trade data by sector for the year 1992; these data were compiled by two departments of Goskomstat RF between February and April 1994. It should be noted that the official data for 1992 were still preliminary as of June 1994, and will continue to be preliminary for a while longer. Lastly, a Leontief-type "skyline" chart analysis of Russian foreign trade and industrial structures is presented, using Russian and Ukrainian input–output tables for 1991–1992 to develop a comparative analysis of the Russian economy.

3.1 Problems Inherent in Russia's Statistics on Foreign Trade with Third-Party Countries

Table 3.1 presents macro data of Russian foreign trade with third-party countries for the years 1989–1993. Exports and imports are evaluated at foreign trade prices, as distinguished from domestic prices.

As can be seen, the annual data of dollar-based exports and imports are linked with ruble-based data by a uniform, average annual ruble/dollar

Table 3.1. Russia's foreign trade with third-party countries between 1989 and 1993.

	1989	1990	1991		1992				1993		
	1	2	3	4	5	6	7	8	9	10	11
Dollar-based at current foreign trade prices in billion dollars											
Exports	74.7	71.1	50.9	(36.8)	38.1	40.0	42.4	(50.4)	43.0	(39.5)	43.7
Imports	78.0	81.8	44.5	(25.6)	35.0	35.0	37.0	(41.7)	27.0	(26.3)	33.0
Net exports	−3.3	−10.6	6.4	(11.2)	3.1	5.0	5.4	(8.7)	16.0	(13.2)	10.7
Ruble/Dollar Exchange rates	0.631	0.585	0.581	(1.746)	193	(193)	(193)	(193)	(1,031)	(1,031)	(1,031)
Ruble-based at current foreign trade prices in billion rubles											
Exports	47.1	41.6	29.6	64.2	7,353	(7,714)	(8,178)	9,719	(44,333)	40,687	(45,055)
Imports	49.2	47.8	25.8	44.7	6,755	(6,755)	(7,141)	8,047	(27,837)	27,125	(34,023)
Net exports	−2.1	−6.2	3.7	19.5	598	(959)	(1,037)	1,672	(16,496)	13,562	(11,032)

Columns 1, 7, and 9 (dollar-based): *Annual Report of Goskomstat RF* for 1993, p.87.
Columns 2, 3, and 6 (dollar-based): *Russian Statistical Yearbook* for 1992, p.50.
Columns 1 to 3 (ruble-based): *Russian Statistical Yearbook* for 1991, p.48.
Column 4: ruble-based data were the first official data for 1991 at the commercial exchange rate that is assumed to be R 1.746/$1. Dollar-based data were derived from ruble-based data and the exchange rate.
Column 5: preliminary data given in *Annual Report of Goskomstat RF* for 1992.
Column 8 (ruble-based): data compiled by the Goskomstat RF on March 31, 1994, which included exports and imports of services and material products.
Column 10 (ruble-based): data given in the Goskomstat preliminary SNA (March 1994).
Column 11 (dollar-based): data given in the 1993 balance of payments compiled by the Goskomstat RF and the Central Bank of Russia in April 1994.
Columns 6 to 8: values in parentheses were computed using official ruble-based or dollar-based data and the exchange rate in column 5.
Columns 9 to 11: values in parentheses were computed using official ruble-based or dollar-based data and the yearly averaged exchange rate (MICEX).
Current dollar-based official time-series data are given by columns 1, 2, 3, 7, and 9. For the years 1992–1993 columns 6 and 11 also provide official data.
Sources: Goskomstat RF except for the author's estimates in parentheses.

exchange rate. Until 1991 ruble-based data were the official foreign trade data in the annual *Statistical Yearbook (Narkhoz)* of the Goskomstat USSR and Goskomstat RF. In 1992, dollar-based data became the main official data of foreign trade except that the Russian *Statistical Yearbook* for 1991, compiled and published in 1992, gave ruble-based data as the official data. Before 1991, the Goskomstat RF converted the ruble-based data valued at foreign trade prices (valuta rubles) to US dollars by applying the average annual exchange rate. Thus columns 1 to 3 of the dollar-based data were obtained from that time series.

When the Goskomstat RF first published the official preliminary data (US-based) for 1992 in early 1993, it also included the ruble-based data (column 5 in *Table 3.1*) by applying the (implicit) average exchange rate, R 193/$1. This average exchange rate is different from the average market exchange rate (R 265/$1) of the Moscow Interbank Currency Exchange (MICEX), for 1992 because the Goskomstat RF also took into consideration the special commercial rate (R 55/$1) that was in effect during the first half of 1992. The dollar-based data in column 6 are the revised official data. Although the Goskomstat RF revised the dollar-based data (column 7), it kept the dollar-based data of column 6 as the official data of the foreign trade department of the Goskomstat RF (this revision is shown later in *Table 3.4*). The further revised value of exports ($42.4 billion) is equal to that given by the preliminary balance of payments for 1992 (*Economy and Life*, No. 18, 1993, p. 5), while the sources of the difference for imports between the further revised value ($37 billion) and the value of column 6 ($35 billion), which seems to be equal to the value of the unrequited transfers, have not been clarified.

After publishing the data in column 5 in *Table 3.1*, the Goskomstat RF stopped publicizing ruble-based data that are clearly linked with dollar-based data. Nevertheless, the department of the Goskomstat RF that is responsible for national accounts and input–output accounts has compiled ruble-based data using enterprises' reports. A preliminary result for 1992, which was obtained in spring 1994, is shown in column 8 in *Table 3.1*. The exports are on f.o.b. basis while imports are on c.i.f. basis. The export and import figures include trade of services as well as "material" commodities. Generally speaking, the Goskomstat RF has no choice but to employ ruble-based data in national accounts. The ruble-based data in column 10, which have not been published, are also official data that the Goskomstat RF used in its 1993 national accounts.

We can convert the ruble-based data of the national accounts to the dollar-based data by applying a single average annual exchange rate to both

the export and import figures as was performed in *Table 3.1*. If the proportion between ruble-based exports and imports is not equal to that of the official dollar-based data, then the dollar-based data estimated cannot be equal to the official data. When we computed dollar-based foreign trade using the ruble-based data for 1992 (column 8) at the preliminary average exchange rate (R 193/$1), we found that exports and imports amount to $50.4 and $41.7 billion, respectively, which are much larger than the values of the official data.

The reliability of foreign trade data for 1991 is questionable because the Goskomstat RF published two different sets of official ruble-based data. One is given in the ruble-based data of column 3; these data are derived from the traditional official exchange rate (R 0.6/$1), which had already been replaced by the commercial rates (R 1.75/$1) in the calculations of trade turnover in 1991, and was formally abolished at the end of 1991. Another is listed in the ruble-based data of column 4, based on commercial rates. While the Goskomstat RF employs the data obtained from using the traditional official rate to convert ruble-based data to dollar-based data, it retains and uses the data derived from the commercial rate as the data at current prices.

Two authoritative organizations such as the Goskomstat of the CIS and the Center of Economic Analysis (CEA) of the Russian government have converted 1991 ruble-based data at the commercial rates to dollar-based data by applying the average annual commercial rate. Their results are similar to the dollar-based data of column 4 and remarkably different from the data based on the traditional exchange rate. In particular, the CEA publicly criticized the methodology of the Goskomstat RF in its periodical report (*Russia-1993*, No. 1, 1993, p. 235) by making full use of foreign trade data. It is not known how the Goskomstat RF responded to this criticism. However, it is obvious that the Goskomstat RF has retained its dollar-based data for 1991 even after former executives of the CEA (Yu. Yurkov and V. Sokolin) were appointed as the new chairman and vice chairman of the Goskomstat RF at the end of 1993.

The official data of foreign trade for 1993 have already been revised three times. The second and third versions are shown in columns 9 and 10, respectively. These frequent revisions were caused mainly by the different estimations for unregistered trade activities.

At this point, it is worth making some general remarks about Russian foreign trade statistics. First, customs clearance data of foreign trade in Russia do not exist, even though chapter 32 of the new customs duties law (*Rosiiskaia Gazeta*, July 21, 1993) claims that the Customs Commission should collect and publish customs clearance basis data on foreign trade.

Foreign trade data have been obtained from the transaction records reported by enterprises. Until 1990 enterprises sent the records at domestic ruble prices to the state foreign trade organizations. In 1991, they were required to send the records converted using the official rates of the Central Bank (CB). Owing to the collapse of the centralized system, the failure to collect customs clearance basis data, and remarkable changes in, for example, the exchange rate, the Goskomstat RF has been facing serious difficulties in compiling consistent and reliable foreign trade data. In June 1994 the Russian Customs Commission recorded $6.6 billion of imports for the first quarter of 1994; this figure is much larger than the official data of the Goskomstat RF ($3.9 billion) and seems to be more plausible than the Goskomstat figure. In the future the Customs Commission data should constitute the base figure of Russian foreign trade. It should be noted, however, that it is not known if the Customs Commission has sufficient data to produce customs clearance basis foreign trade data.

Second, before 1992 Russian foreign trade data did not exist. Hence, all Russian foreign trade data for the Soviet era, including columns 1 to 4 in *Table 3.1*, are somewhat hypothetical.

Third, in traditional Soviet data of foreign trade, both exports and imports are on f.o.b. basis. Exports in *Table 3.1* seem to be on f.o.b. basis. It is not known whether imports are on f.o.b. or c.i.f. basis, but the ruble-based imports of column 8 in *Table 3.1* are based on the latter.

3.2 Changes in Russian Foreign Trade

Table 3.2 shows annual growth rates in Russian foreign trade with third-party countries from 1991 to 1993. The data are obtained from two time series of dollar-based data at current prices. While exports and imports based on the official statistics show a 17% decrease in 1992, exports and imports based on CEA data show a 3% increase and a 34% increase, respectively. The trade surplus derived from CEA data shows a greater decrease than that based on the official statistics in 1992 because in the case of the CEA data the increase in the import figure is much larger than that in the export. In 1991, however, exports and imports based on CEA data show a marked decline; exports are half the level of 1990 and imports show a 70% decline. If we observe the Russian performance of foreign trade in 1991 and 1992, the CEA's assertion seems to be plausible. However, the 70% decline in the import figure in 1991 is questionable even if we take the collapse of the CMEA trade system into consideration.

Table 3.2. Annual growth rates in Russia's foreign trade with third-party countries, from 1991 to 1993, in percent.

	Goskomstat RF				C E A	
			1993			
	1991	1992	A	B	1991	1992
Exports	−28.4	−16.7	1.4	3.1	−45.4	2.9
Imports	−45.6	−16.8	−27.0	−10.8	−68.0	33.9
Net exports	160.7	−16.1	196.3	99.1	219.9	−60.8

CEA: Center of Economic Analysis (Tsentr Ekonomicheskoi Kon'iunktury), Russian Government.
Data of the Goskomstat RF: computed using *Table 3.1* (dollar-based columns 2, 3, 7, 9 for case A and 11 for case B).
Data of the CEA: exports and imports in 1991 are $38.8 and 26.1 billion, respectively (CEA, *Russia-1993*, No. 3, 1993, p. 265). Data for the other years are derived from columns 2 and 6 (dollar-based) in *Table 3.1*.

Table 3.3. Russia's dependence on foreign trade with third-party countries, from 1989 to 1993, in percent.

	1989	1990	1991	1992	1993
Ratio of foreign trade to GDP					
Total turnover	16.8	13.9	8.4	98.2	42.0
Exports	8.2	6.5	4.9	53.7	25.2
Imports	8.6	7.4	3.4	44.5	16.8
Net exports	−0.4	−1.0	1.5	9.2	8.4

Data are based on *Table 3.1* (ruble-based columns 1, 2, 4, 8, and 10) and the GDP data of the Goskomstat RF.

It should be noted that the dollar-based data of the Goskomstat for the years other than 1991 are the same as the CEA's. As shown in *Table 3.2*, the export figure shows a slight increase in 1993, while the import figure shows a remarkable decrease, owing to the marked reduction of centralized imports. Although there may have been a reduction in centralized imports in 1993, whether the total imports in 1993 fell as sharply as the official statistics show (case A and case B show a 27% and 11% decrease, respectively) is debatable because of the large-scale informal foreign trade activities, including the so-called shuttle trade.

Table 3.3 shows Russia's dependence on foreign trade with third-party countries in the ratio of foreign trade (total turnover, exports, and imports) to GDP, employing ruble-based data. It should be noted that Goskomstat RF and the CEA do not differ on the issue of the dependence on foreign trade. As can be seen, the rates of Russian dependence on foreign trade

show a sharp increase in 1992, due to the sharp depreciation of the nominal and effective value of the ruble; the nominal rate of depreciation was 10 times the rate of the general price increase. In fact, the total turnover of foreign trade is close to the value of GDP in 1992. In 1993 the rate of dependence on foreign trade became half of that in 1992; this is due to the increase in the real effective value of the ruble. Nevertheless, the rates of dependence in 1993 show a much higher value than the rates before 1991 – that is, they were more than double the rates in 1989 and 1990.

3.3 Foreign Trade By Commodity Group

Table 3.4 shows preliminary dollar-based data of Russian foreign trade by commodity group, or "pure" sector, for 1992, compiled by the foreign trade department of the Goskomstat RF. The data are rather consistent with several previous Goskomstat RF reports on foreign trade in 1992, although total exports and total imports are different from the most recent official data. We may regard *Table 3.4* as the official data of foreign trade by sector for 1992 at foreign trade prices, or roughly at world prices.

Table 3.5 displays preliminary ruble-based data of the Russian foreign trade by commodity group. The national accounts department of the Goskomstat RF recently compiled these data to complete their own time series of foreign trade by sector and to establish the 1992 input–output table. Starting with 1992, this department computes export and import data at current ruble prices which are converted from dollar-based data by applying the exchange rates of the Central Bank of Russia (CBR). (*Table 3.5* constitutes one part of Russia's total exports and imports, shown later in *Table 3.10*.)

In principle, the structures of *Table 3.4* and *Table 3.5* should be similar for 1992; however, they are not. The oil and gas sector shows a 50.9% share in exports in *Table 3.4*, while it shows a much lower share, 31.6%, in *Table 3.5*. Conversely, ferrous metallurgy, nonferrous metallurgy, and chemical industry sectors show much higher shares in exports in *Table 3.5*: 14.2%, 15.6%, and 10.3%, respectively, in *Table 3.5*; 5.7%, 9.5%, and 6.5%, respectively, in *Table 3.4*. It should be noted that the machine-building and metalworking (MBMW) sector shows the same share in exports (15.0%) in *Tables 3.4* and *3.5*. Total industry also shows the same share in exports (99.1%). At this point one may speculate that *Table 3.5* shows the structure of foreign trade by sector at domestic prices, as distinguished from foreign trade prices. However, this cannot be verified in *Table 3.5* because official

Table 3.4. Russia's foreign trade by commodity group with third-party countries (dollar-based) 1992.

	Commodity group	In million dollars			In %	
		Exports	Imports	Net exports	Exports	Imports
1	Electric power	109	5	104	0.3	0.0
2	Oil and gas	20,330	346	19,984	50.9	1.0
	Crude oil	8,545	0	8,545	21.4	0.0
	Oil product	4,306	326	3,980	10.8	0.9
	Gas	7,479	20	7,459	18.7	0.1
3	Coal	794	0	794	2.0	0.0
4	Other fuels	31	1	30	0.1	0.0
5	Ferrous metallurgy	2,295	1,046	1,249	5.7	3.0
6	Nonferrous metallurgy	3,816	460	3,356	9.5	1.3
7	Chemicals	2,598	3,531	-933	6.5	10.1
8	MBMW[a]	5,975	14,310	-8,335	15.0	40.9
9	Wood and paper	1,405	424	981	3.5	1.2
10	Building materials	81	185	-104	0.2	0.5
11	Light industry	228	4,094	-3,866	0.6	11.7
12	Food industry	1,009	4,738	-3,729	2.5	13.5
13	Other industry	940	451	489	2.4	1.3
	Industry, total	39,611	29,591	10,020	99.1	84.6
14	Agriculture	141	4,573	-4,432	0.4	13.1
15	Other	213	817	-604	0.5	2.3
	Total	39,965	34,981	4,984	100.0	100.0

The table shows foreign trade by commodity group based on Russian I–O accounts.
[a]Machine-building and metalworking sector.
Source: preliminary data, Foreign Trade Department of Goskomstat RF, February 1994.

foreign trade data at domestic prices are not available for 1992 and 1993. Thus, we can only expect better coordination between the two departments of the Goskomstat RF in the future, although this would be a very time-consuming process.

Table 3.6 shows Russia's trade with third-party countries by commodity group at both domestic and foreign trade prices for the years between 1988 and 1992. It should be noted that trade with third-party countries has actually been carried out at foreign trade (contract) prices between Russian trade organizations and third-party countries and at domestic prices between domestic producers and trade organizations. It should also be noted that until 1991 the taxes (duties) on and subsidies for foreign trade had been conceptualized implicitly as the differences between foreign trade prices and

Table 3.5. Russia's foreign trade by commodity group with third-party countries in current ruble prices, in 1992.

Commodity group		In million rubles			In %	
		Exports (f.o.b.)	Imports[a] (c.i.f.)	Net exports	Exports (f.o.b.)	Imports (c.i.f.)
Material products:						
1	Electric power	20,982	1	20,981	0.2	0.0
2	Oil and gas	2,826,527	135,874	2,690,653	31.6	1.9
3	Coal	193,046	984	192,062	2.2	0.0
4	Other fuels	6	297	-291	0.0	0.0
5	Ferrous metallurgy	1,272,342	607,501	664,841	14.2	8.5
6	Nonferrous metallurgy	1,395,800	31,503	1,364,297	15.6	0.4
7	Chemicals	921,358	788,339	133,019	10.3	11.0
8	MBMW	1,342,829	2,404,244	-1,061,415	15.0	33.7
9	Wood and paper	393,835	110,546	283,289	4.4	1.5
10	Building materials	21,859	138,409	-116,550	0.2	1.9
11	Light industry	62,946	959,364	-896,418	0.7	13.4
12	Food industry	379,850	1,172,857	-793,007	4.2	16.4
13	Other industry	27,025	12,540	14,485	0.3	0.2
	Industry, total	8,858,405	6,362,459	2,495,946	99.1	89.1
14	Agriculture	23,079	777,813	-754,734	0.3	10.9
15	Others	57,233	8	57,225	0.6	0.0
	Material products, total	8,938,717	7,140,280	1,798,437	100.0	100.0

Services						
16	Industry	19,212	92,156	−72,944	2.5	10.2
17	Construction	7,380	2,320	5,060	0.9	0.3
18	Agriculture, fishery	519	106	413	0.1	0.0
19	Trade, restaurant	22,199	33,495	−11,296	2.8	3.7
20	Technical supply	486	192	294	0.1	0.0
21	Procurement	4	0	4	0.0	0.0
22	Transport, communication	711,283	767,377	−56,094	91.2	84.7
23	Information processing	103	69	34	0.0	0.0
24	Other material products	186	202	−16	0.0	0.0
25	Education, health, culture	15,453	8,308	7,145	2.0	0.9
26	Daily-life services	916	169	747	0.1	0.0
27	Administration, finance	167	65	102	0.0	0.0
28	Sciences	1,920	1,919	1	0.2	0.2
29	Social organization	6	2	4	0.0	0.0
	Services, total	779,834	906,380	−126,546	100.0	100.0
	Material products	8,938,717	7,140,280	1,798,437	92.0	88.7
	Services	779,834	906,380	−126,546	8.0	11.3
	Total (including services)	9,718,551	8,046,660	1,671,891	100.0	100.0

The table shows foreign trade by commodity group, based on Russian I–O accounts.

[a]Total material imports include freight 218,266.7 million rubles and insurance 145,511.1 million rubles.

Source: preliminary data compiled by Goskomstat RF, April 1994.

Table 3.6. The structure of Russia's trade by commodity group with third-party countries, between 1988 and 92, in percent.

		Exports at foreign trade prices					Imports at foreign trade prices				
		1988	1989	1990	1991	1992	1988	1989	1990	1991	1992
Commodity group		1	2	3	4	5	6	7	8	9	10
1	Electric power	0.3	0.3	0.4	(0.5)	0.3	0.0	0.0	0.0	(0.0)	0.0
2	Oil and gas	45.7	41.4	47.5	(48.0)	50.9	3.9	2.0	1.3	(0.4)	1.0
3	Coal	1.2	1.2	0.9	(1.8)	2.0	0.9	0.5	0.5	(0.0)	0.0
4	Other fuels	0.0	0.0	0.0	(0.0)	0.1	0.0	0.0	0.0	(0.0)	0.0
5	Ferrous metal	3.3	3.3	3.6	(4.8)	5.7	6.4	5.5	4.3	(2.9)	3.0
6	Nonferrous metal	4.8	5.7	6.9	(7.8)	9.5	2.6	3.3	3.0	(2.1)	1.3
7	Chemicals	4.4	3.4	3.5	(6.3)	6.5	8.4	8.9	9.2	(9.6)	10.1
8	MBMW	31.5	35.7	28.4	(18.5)	15.0	49.6	51.9	52.2	(41.3)	40.9
9	Wood and paper	4.6	4.6	4.4	(3.9)	3.5	1.9	2.1	1.9	(1.6)	1.2
10	Building mat.	0.3	0.3	0.4	(0.4)	0.2	0.7	0.7	0.7	(0.6)	0.5
11	Light industry	1.1	0.7	0.9	(0.8)	0.6	7.7	8.0	9.1	(10.4)	11.7
12	Food industry	1.0	1.1	1.4	(2.2)	2.5	8.9	10.1	10.1	(11.8)	13.5
13	Other industry	0.9	0.5	0.5	(2.1)	2.4	1.1	0.9	1.0	(1.1)	1.3
	Industry, total	99.0	98.2	98.6	(97.2)	99.1	92.1	94.0	93.3	(81.9)	84.6
14	Agriculture	0.3	0.1	0.2	(0.3)	0.4	5.7	5.4	6.1	(12.9)	13.1
15	Others	0.7	1.7	1.2	(2.5)	0.5	2.2	0.6	0.5	(5.2)	2.3
	Total	100.0	100.0	100.0	(100.0)	100.0	100.0	100.0	100.0	(100.0)	100.0

Table 3.6. Continued.

		Exports at domestic price					Imports at domestic prices				
		1988	1989	1990	1991	1992	1988	1989	1990	1991	1992
		11	12	13	14	15	16	17	18	19	20
1	Electric power	0.3	0.3	0.4	0.4	–	0.0	0.0	0.0	0.0	–
2	Oil and gas	28.4	25.5	25.3	24.9	–	1.2	0.7	0.6	0.1	–
3	Coal	2.1	2.0	1.5	1.3	–	0.4	0.2	0.2	0.0	–
4	Other fuels	0.0	0.0	0.0	0.0	–	0.0	0.0	0.0	0.0	–
5	Ferrous metal	4.5	4.3	4.5	4.7	–	3.7	2.8	2.0	1.4	–
6	Nonferrous metal	4.8	5.6	6.3	6.0	–	1.9	2.2	1.7	0.5	–
7	Chemicals	8.5	7.0	6.4	6.6	–	8.2	8.4	7.8	4.7	–
8	MBMW	28.8	33.7	33.4	39.1	–	36.7	36.9	38.0	25.5	–
9	Wood and paper	9.2	11.0	9.2	5.8	–	2.0	2.1	1.8	0.9	–
10	Building mat.	0.5	0.5	0.6	0.5	–	0.9	0.9	0.8	1.2	–
11	Light industry	4.4	2.6	3.4	2.8	–	20.7	21.6	23.3	24.9	–
12	Food industry	3.4	3.7	4.9	4.9	–	12.8	14.9	14.2	28.5	–
13	Other industry	1.4	0.8	0.9	1.2	–	1.3	1.1	2.0	2.2	–
	Industry, total	96.3	96.9	96.8	98.3	–	89.9	91.6	92.5	89.8	–
14	Agriculture	0.9	0.9	1.2	0.6	–	8.4	7.9	7.1	10.1	–
15	Others	2.8	2.2	1.9	1.1	–	1.8	0.4	0.4	0.1	–
	Total	100.0	100.0	100.0	100.0	–	100.0	100.0	100.0	100.0	–

For the years from 1988 to 1990, see Kuboniwa (1993, p. 166, Table 9). Data in this table were compiled based on Russian activity-based I–O accounts.

Columns 4 and 9: preliminary estimates using data of foreign trade prices from the Russian *Statistical Yearbook* for 1991 and the CEA's *Russia-1993*, No. 1, 1993.

Columns 5 and 10: *Table 3.4*.

Columns 14 and 19: Russian *Statistical Yearbook* for 1992, pp. 38–39.

Columns 15 and 20: no official data exist.

Sources: Goskomstat RF, IMF, World Bank, and author's estimates.

domestic prices. Since 1992, the concept of taxes and duties on foreign trade has been utilized explicitly in trade practices with third-party countries.

As can be seen from *Table 3.6*, the foreign trade structure of Russia's economy changes remarkably when domestic prices are converted to foreign trade prices. This is due to the remarkable differences between the domestic and foreign trade prices of commodities, including oil and gas. Calculations show that in 1990 the domestic price of oil and gas was 35% of the foreign trade price. At the end of 1992 the domestic prices of oil products were 26–28% of the world prices in spite of the marked increase in the domestic prices, owing to the significant decrease in the real effective exchange rate, whereas at the end of 1993 they were 52–58% of the foreign trade prices; the change in the 1993 price was due to the increase in the real effective exchange rate and the decrease in world prices (these calculations were made based on Goskomstat RF dollar-based figures). The domestic prices of gasoline and diesel fuel per ton were R 18,600 ($44.80) and R 15,700 ($37.60), respectively, at the end of 1992 and R 103,000 rubles ($83.10) and R 92,000 ($74.20), respectively, at the end of 1993. Thus large differences between the domestic and foreign trade prices still exist, although the Goskomstat RF has ceased to compile foreign trade data at domestic prices.

Table 3.6 shows that an important change in the structure of Russian foreign trade was the drastic decline in the export share of the MBMW sector in 1991 and 1992: it dropped to half the average share between 1988 and 1990. This was mainly due to the collapse of CMEA trade. To what extent did the reduction in exports of weapons consolidated into the MBMW sector in 1991 and 1992 affect the decline in the MBMW export share? The answer to this question is debatable because the treatment of weapon exports in the official foreign trade data is not well known. Nevertheless, commodities belonging to the MBMW sector show the highest import share between 1988 and 1992, even if the import share shows a 20% decrease between 1991 and 1992 compared with that between 1988 and 1990.

Table 3.7 shows selected Russian foreign trade data by commodity for 1993. The oil and gas sector shows a 7% decline in nominal foreign trade prices, but each commodity belonging to this sector shows a marked increase in exports in physical quantities. This phenomenon is due to the decline of world prices. It should be noted that the foreign trade prices of crude oil and oil products were almost equal to the world prices in 1993, unlike in 1992. Both exports and imports of machinery and equipment continue to show a marked decline in the volumes at foreign trade prices. It should also be noted that the category of machinery and equipment included in *Table 3.7* is narrower than that of the MBMW sector in *Tables 3.4*, *3.5*,

Table 3.7. Selected data of Russia's trade with third-party countries in 1993.

	Value in million dollars	Share %	Growth %	Quantity	Growth %
Exports					
Oil and gas	18,938	44.0	−7		
Crude oil	8,193	19.1	−4	79.7 mln.ton	20
Oil product	3,447	8.0	−20	34.5 mln.ton	36
Gas	7,298	17.0	−2	95.9 bln.m^3	9
Coal	630	1.5	−21	19.3 mln.ton	6
Aluminum	1,423	3.3	16	1.562 mln.ton	62
Machinery, equipment	2,865	6.7	−23		
Gold	(1,284)	(3.0)	n.a.		
Imports					
Grain	1,554	5.8	−48	11.1 mln.ton	−62
Machinery, equipment	7,165	26.5	−42		

Sources: Goskomstat RF (*Annual Report and Yearbook for 1992, 1993*); the data on gold are from the *1993 Balance of Payments*.

and *3.6*. The figures for grain show a substantial increase in the import share in 1992, whereas they show a marked decrease in the import share and volume in 1993. A reduction in exports of machinery and equipment induces a great amount of direct and indirect reductions of Russia's domestic outputs, according to the result of our input–output analysis. A reduction in imports of machinery and equipment directly contributes to an increase in the trade surplus, although it would result in a marked reduction in the potentiality of Russia's domestic production system.

3.4 Foreign Trade and National Accounts

Table 3.8 shows the structure of Russia's gross domestic expenditures (GDE) at current ruble prices from 1989 to 1993, based on the methodology of the United Nations SNA. In *Table 3.8*, according to the Western practice, the annual value of GDE is set to be equal to that of gross domestic product (GDP). In Russia's SNA, trade balance implies total trade balance, defined as the sum of net exports to third-party countries and to former Soviet republics.

The share of total trade surplus in GDP rose sharply in 1992. This was mainly due to the remarkable increase in the rates of Russia's dependence

Table 3.8. Structure of Russia's gross domestic expenditure (GDE) between 1989 and 1993.

	1989	1990	1991	1992	1993 A	1993 B
	In billion rubles			*In trillion rubles*		
GDE (= GDP)	573.0	644.0	1,300.1	18.1	162.3	161.6
Final consumption	384.1	444.4	826.3	9.7	93.9	103.5
Household consumption	266.0	305.0	564.3	6.5	65.8	70.2
Government consumption	118.1	139.4	262.0	3.2	28.1	33.3
Gross capital formation	193.9	194.1	508.7	5.8	41.8	40.8
Fixed capital formation	182.0	184.9	326.9	3.7	33.3	33.0
Increase in stocks	11.9	9.2	181.8	2.1	8.5	7.8
Total trade balance[a]	5.1	1.4	3.9	2.9	20.6	19.2
Statistical discrepancy	-10.1	4.1	-38.8	-0.3	6.0	-1.9
	In %			*In %*		
GDE (= GDP)	100.0	100.0	100.0	100.0	100.0	100.0
Final consumption	67.0	69.0	63.6	53.6	57.8	64.0
Household consumption	46.4	47.4	43.4	35.9	40.5	43.4
Government consumption	20.6	21.6	20.2	17.7	17.3	20.6
Gross capital formation	33.8	30.1	39.1	32.0	25.8	25.3
Fixed capital formation	31.8	28.7	25.1	20.4	20.5	20.4
Increase in stocks	2.1	1.4	14.0	11.6	5.3	4.9
Total trade balance	0.9	0.2	0.3	16.0	12.7	11.9
Statistical discrepancy	-1.8	0.6	-3.0	-1.7	3.7	-1.2

[a]Total trade balance is defined as the sum of net exports to third-party countries and to former Soviet republics.
1990 and 1991: *Statistical Yearbook* for 1992, Goskomstat RF.
1992 and 1993A: *Annual Report of Goskomstat RF* for 1993.
1993B: alternative data of the Goskomstat RF.

Table 3.9. Foreign trade and national accounts between 1989 and 1993, in billion rubles.

	At domestic prices			At current prices	
	1989	1990	1991	1992	1993
1 Total exports	109.6	109.1	185.6	12,295	(55,685)
2 Exports to third countries	34.5	33.7	48.9	9,719	40,687
3 Exports to FSU	75.1	75.4	136.7	2,577	(14,998)
4 Total imports	144.3	144.9	181.6	9,391	(36,447)
5 Imports from third countries	73.6	77.1	76.7	8,047	27,125
6 Imports from FSU	70.7	67.8	105.0	1,344	(9,322)
MPS: Input–Output Accounts (I–O)					
7 Total trade balance (1–4; 8+9)	–34.7	–35.8	3.9		
8 Trade balance (2–5)	–39.1	–43.4	–27.8		
9 Trade balance for FSU (3–6)	4.4	7.6	31.7		
MPS: National Income and Product Accounts (NIPA)					
10 Foreign trade earnings	43.5	44.4	(32.6)		
11 Total trade balance (7+10)	8.9	8.6	(36.5)		
SNA: I–O and NIPA					
12 Trade adjustment	(39.8)	(37.2)	(0.0)		
13 Total trade balance (7+12)	5.1	1.4	3.9		
14 Total trade balance (1–4)				2,904	19,238
15 Trade balance (2-5)				1,672	13,562
16 Trade balance for FSU (3–6)				1,233	5,676

Lines 1 to 9 for 1989–1991: *Russian Statistical Yearbook* for 1989–1991.
Lines 10 and 11 for 1989 and 1990: *National Accounts of Goskomstat RF*.
Lines 10 and 11 for 1991: residual estimates based on official national accounts and input-output tables. Line 10 is only trade with third-party countries.
Line 12: residual estimates.
Line 13: *Russian Statistical Yearbook* for 1992.
Lines 1 to 6 and 14 to 16 for 1992 and 1993: preliminary data of the Goskomstat RF. Values in parentheses were estimated using the given trade balances and data in *Annual Report of Goskomstat RF* for 1993.
Sources: Goskomstat RF and author's estimates.

on trade with third-party countries. However, in the case of Russia's SNA the methodological change in measuring trade surplus in 1991 also affected the marked increase in the share of the trade surplus in GDP, as can be seen from *Table 3.9*.

Table 3.9 shows how the Goskomstat RF calculated the annual total trade surplus. It is obvious that a large part of so-called (special) foreign trade earnings, which is called trade adjustment in *Table 3.9*, is included in the total trade balance for 1989–1990 in *Table 3.8*, while the total trade balance for 1991 in *Table 3.8* is expressed purely in domestic prices and

corresponds to line 7 in *Table 3.9*. The concept of *foreign trade earnings* was originally defined as net imports at domestic prices plus the adjustment coefficient multiplied by *net exports at foreign trade prices*, where the coefficient is defined as *exports at domestic prices/exports at foreign trade prices*. However, this is true only for the foreign trade of the former Soviet Union. The Goskomstat treatment results in an inconsistency because in 1991, as well as between 1989 and 1990, domestic prices were quite different from foreign trade prices (compare lines 2 and 5 in *Table 3.9* for 1989–1991 with columns 1, 2, and 4 in *Table 3.1*), and there is no reason why the case for 1991 should not include *foreign trade earnings*. Since 1992, the methodology for foreign trade in the national accounts has been brought in line with Western practice. However, as mentioned in Sections 3.1 and 3.2, a number of problems remain to be solved.

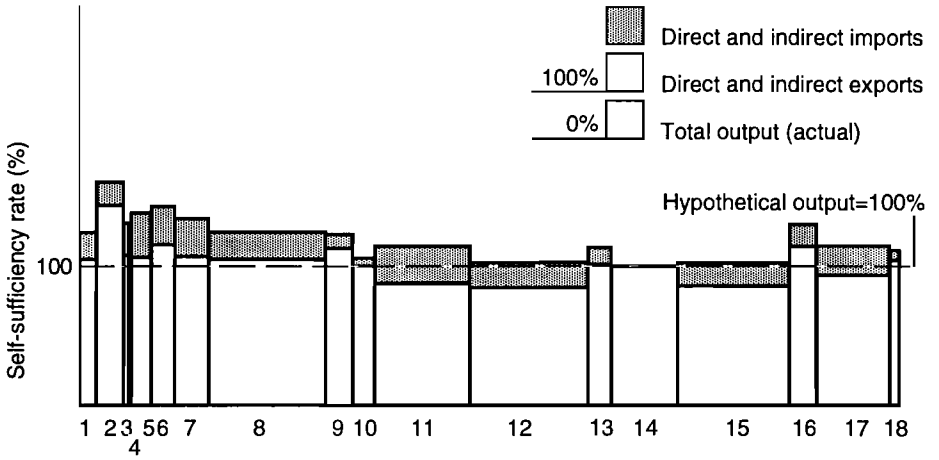
3.5 Skyline Chart Analysis of Russian Foreign Trade

We now investigate the pattern of the Russian industrial and foreign trade structure and compare it with that of the Ukrainian structure, employing the Leontief-type skyline chart analysis.

The skyline analysis in input–output analysis was conceptualized by Leontief (1966) as a tool to study the structure of the economic development and foreign trade patterns of developing countries. We apply this concept to clarify foreign trade characteristics of the Russian economy. Exports and imports include exports to and imports from both third-party countries and former Soviet republics.

In the skyline chart, the vertical axis of the chart represents the self-sufficiency rate. The self-sufficiency rate is defined as the actual gross domestic output (GDO) divided by the hypothetical GDO, which is induced by domestic final demand. The hypothetical GDO is the GDO directly and indirectly required to produce domestic final demand, which consists of consumption plus investment, including imported consumption and investment goods. The hypothetical GDO is based on the assumption that all outputs required to meet domestic final demand are produced domestically, with no imports.

The horizontal axis represents the hypothetical GDO of each sector. All hypothetical GDOs are assumed to be 100% (100% self-sufficiency rate). Atop each GDO block is added a direct and indirect export block (output induced by export). Direct and indirect imports (output induced by imports)



1 Electric power
2 Oil, gas
3 Coal
4 Other fuels*
5 Ferrous metallurgy
6 Nonferrous metallurgy
7 Chemical industry
8 MBMW
9 Timber, wood, paper
10 Building materials
11 Light industry
12 Food industry
13 Other industry
14 Construction
15 Agriculture
16 Transport, communications
17 Domestic trade
18 Other branches

* The hypothetical GDO is too narrow to be visible in chart.

Figure 3.1. Skyline chart for Russia in 1991 (MPS).

are subtracted from the direct and indirect export block, and the remainder is added to the GDO to derive the final configuration of the sector block. This procedure is performed for each industrial sector. The actual industrial structure is therefore indicated by the solid line and has the appearance of a city skyline. (For the mathematical background for skyline chart analysis, see Kuboniwa, 1989, pp. 140–141.)

Figure 3.1 shows the skyline chart of Russia for 1991 based on the official 1991 I–O table (MPS-type), while *Figure 3.2* shows the skyline analysis based on a preliminary 1991 I–O table (SNA-type). Although this 1991 SNA I–O is preliminary, it is the first SNA I–O compiled by the Goskomstat RF. As can be seen from the two figures, the move from MPS to SNA increases the number of sectors in the chart of the skyline pattern; nonmaterial service sectors, including education, health, culture, art, daily-life service, administration (government, defence, etc.), finance, and sciences, are included in *Figure 3.2* although in 1991 the nonmaterial service sectors show only a

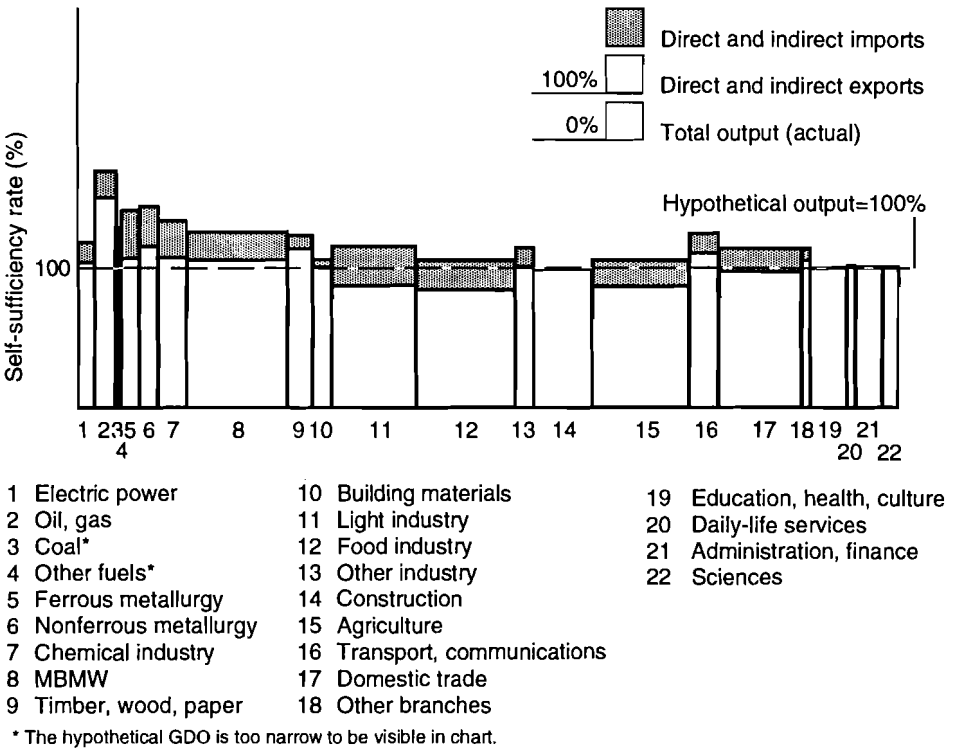
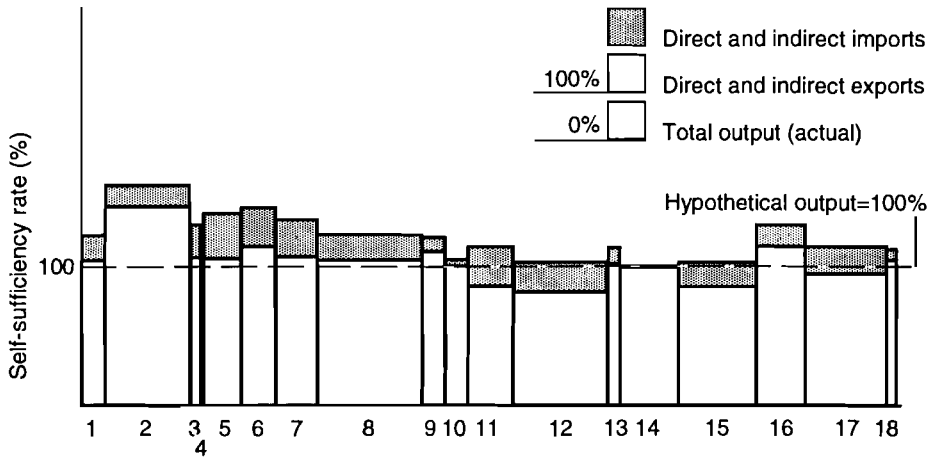


Figure 3.2. Skyline chart for Russia in 1991 (SNA).

small share in the total actual and hypothetical output. As the export and import vectors for 1991 do not include foreign trade of services, the output inducement effect of exports and imports of the nonmaterial service sectors cannot be identified visually.

As no official or preliminary Russian I–O account has been compiled for 1992, we have developed a theoretical skyline (*Figure 3.3*) based on the I–O account that was obtained by multiplying each column of the 1991 MPS I–O by the official vector of nominal output growth rates for 1992. Hence, *Figure 3.3* reflects actual outputs but estimated exports and imports for 1992. Although *Figure 3.3* is theoretical, it provides a glimpse of what the pattern of the Russian 1992 I–O skyline might look like.

Figures 3.4 and *3.5* show the skyline analysis of the Ukraine for 1991 and 1992, respectively, employing the official 1991 and 1992 I–O tables based on MPS. The changes in the Russian and Ukrainian total foreign trade are



1 Electric power
2 Oil, gas
3 Coal
4 Other fuels*
5 Ferrous metallurgy
6 Nonferrous metallurgy
7 Chemical industry
8 MBMW
9 Timber, wood, paper
10 Building materials
11 Light industry
12 Food industry
13 Other industry
14 Construction
15 Agriculture
16 Transport, communications
17 Domestic trade
18 Other branches

* The hypothetical GDO is too narrow to be visible in chart.

Figure 3.3. Theoretical skyline chart for Russia in 1992 (MPS).

shown in *Tables 3.10* and *3.11*. We can draw several conclusions from the skyline analysis for Russia and the Ukraine.

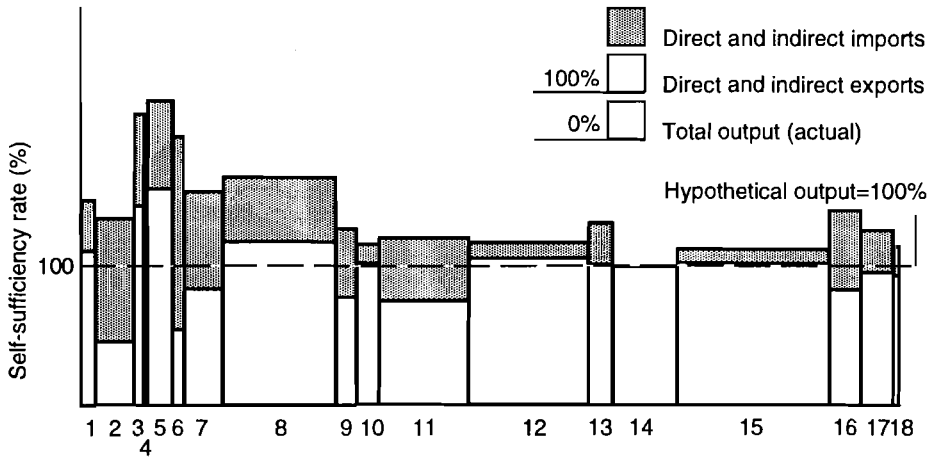
First, the Russian skyline charts are rather flat in comparison with the skyline analyses of the Ukraine and probably of other former Soviet republics.

Second, in Russia in 1991 the oil and gas industry had the largest self-sufficiency rate (152%), followed by the nonferrous metallurgy sector (117%) and the wood and paper industry (113%). Other than these three sectors, the transportation and communication (one of the material service sectors, 111%), the chemical industry (109%), the coal (108%), and the ferrous metallurgy (108%) sectors show self-sufficiency rates over 100%. The observed and theoretical outputs of the oil and gas sector show a marked increase in 1992 in *Figure 3.3*, while those of the MBMW show a large reduction. The nonferrous metallurgy sector shows a remarkably higher self-sufficiency rate in 1992 due to the marked increase in its share in the total export figure.

Table 3.10. Structure of Russia's total exports and imports in current prices, 1990–1992, in percent.

		Total exports (domestic prices, f.o.b.)			Total imports (domestic prices, c.i.f.)		
		1990	1991	1992	1990	1991	1992
Material products							
1	Electric power	0.7	0.9	0.6	0.4	0.6	0.2
2	Oil and gas	16.2	17.5	34.0	1.7	1.8	2.4
3	Coal	0.8	0.7	2.0	0.4	0.4	0.4
4	Other fuels	0.0	0.0	0.0	0.0	0.0	0.0
5	Ferrous metallurgy	6.7	6.2	13.2	5.1	5.3	10.5
6	Nonferrous metallurgy	5.0	5.0	13.1	2.0	2.5	1.2
7	Chemicals	10.4	10.1	10.3	8.0	6.4	11.1
8	MBMW	34.5	32.8	15.5	34.5	25.0	32.8
9	Wood and paper	6.3	5.5	4.6	1.5	1.1	1.5
10	Building materials	1.3	1.2	0.3	1.0	1.1	1.8
11	Light industry	7.9	10.8	1.3	20.1	21.1	12.3
12	Food industry	3.8	3.0	4.0	16.4	23.5	15.5
13	Other industry	2.7	3.4	0.3	2.1	1.9	0.2
	Industry, total	96.2	97.1	99.3	93.2	90.8	89.9
14	Agriculture	0.7	0.4	0.2	6.0	8.5	10.1
15	Other branches	3.0	2.5	0.5	0.8	0.6	0.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0
	Total (billion rubles)	109.120	185.591	11,309.128	144.889	181.640	8,335.164
Material products, total				92.0			88.8
Services, total				8.0			11.2
Total (including services)				100.0			100.0

Data for 1990 and 1991 are obtained from *Russian Statistical Yearbook* for 1990, 1991.
Data for 1992 are from preliminary data by Goskomstat RF, March 31, 1994.
Total exports (imports) are given by the sum of exports to (imports from) third-party countries and former Soviet republics.
Source: Goskomstat RF.



1 Electric power
2 Oil, gas
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7 Chemical industry
8 MBMW
9 Timber, wood, paper
10 Building materials
11 Light industry
12 Food industry
13 Other industry
14 Construction
15 Agriculture
16 Transport, communications
17 Domestic trade
18 Other branches

* The hypothetical GDO is too narrow to be visible in chart.

Figure 3.4. Skyline chart for the Ukraine in 1991 (MPS).

Third, in the Ukraine in 1991, the metallurgy sector shows the largest self-sufficiency rate (159%), followed by the coal sector (146%) and the MBMW sector (119%). In contrast with Russia, however, the oil and gas sector shows the least self-sufficiency rate (46%). In 1992, the metallurgy sector shows a much higher self-sufficiency rate (210%), remarkably extending the actual output share, owing to the increase in prices. The coal sector shows a slightly higher self-sufficiency rate (148%) and a marked increase in the output share. The oil and gas sector has a reduced self-sufficiency rate of 33% in 1992, but it shows a marked extension of the shadowed area (import block) due to the price increase of oil and gas imported from Russia.

Fourth, in Russia in 1991 the food industry has the lowest self-sufficiency rate (85%), followed by agriculture (87%) and light industry (88%), whereas in 1989 light industry has the lowest self-sufficiency rate (67%). As for the year 1991, in the Ukraine 5 of 18 sectors, including oil and gas (with the lowest self-sufficiency rate, 46%), nonferrous metallurgy, wood and paper,

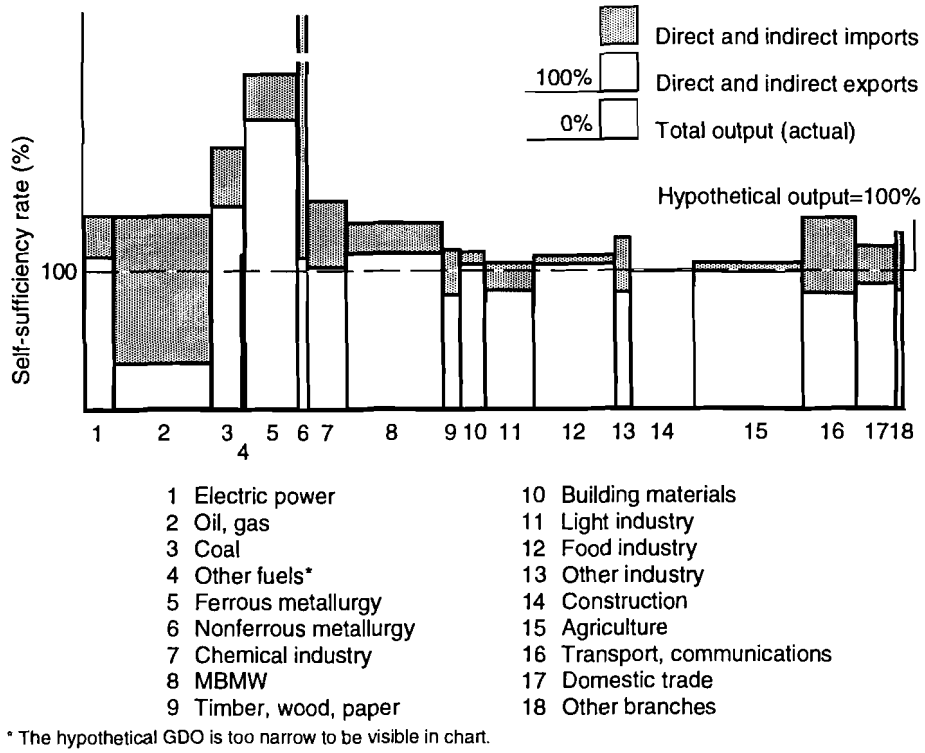

Figure 3.5. Skyline chart for the Ukraine in 1992 (MPS).

light industry, and chemical industry, show much lower self-sufficiency rates than the lowest rate in Russia (*Figure 3.4*). Despite its great potential, the Ukrainian agriculture sector shows a rather low self-sufficiency rate (103%). The development level of the Russian economy is much higher than that of the Ukraine, judging from the skyline chart for 1991. It should be noted that the self-sufficiency rate of the Russian light industry shows a marked decline in 1992, due to the remarkable decrease in the export share (from 10.8% to 1.3%). In the Ukraine in 1992, in fact, the scale of production and foreign trade of light industry and agriculture shows a great reduction.

Lastly, in 1991 the self-sufficiency rate of the Russian machine-building and metalworking industry is ranked in the middle (106%), although in 1989 it was below 100% (i.e., 92%). The export ratio and the import ratio of the MBMW sector are 27% and 21%, respectively; in 1989 they were 29% and 37%, respectively. The increase in the self-sufficiency rate of the MBMW sector in 1991 is mainly due to the decrease of the import rate. The MBMW

Table 3.11. Structure of the Ukraine's total exports and imports in current prices, 1990–1992, in percent.

		Total exports			Total imports		
		1990	1991	1992	1990	1991	1992
Material products							
1	Electric power	1.5	1.5	0.7	0.4	0.4	0.5
2	Oil and gas	1.4	1.2	3.9	7.3	13.3	37.0
3	Coal	1.5	0.8	2.9	0.7	0.4	2.6
4	Other fuels	0.0	0.0	0.0	0.0	0.0	0.0
5	Ferrous metallurgy	16.7	14.0	38.0	5.0	5.5	5.2
6	Nonferrous metallurgy	2.0	2.5	5.7	4.0	6.0	7.0
7	Chemicals	8.6	8.4	10.9	10.8	11.3	11.3
8	MBMW	39.1	44.1	24.9	34.0	29.8	16.6
9	Wood and paper	0.9	1.6	0.7	3.5	4.6	3.9
10	Building materials	1.4	1.8	1.5	0.9	1.3	0.4
11	Light industry	5.1	6.3	1.5	18.3	15.4	5.8
12	Food industry	14.6	11.6	6.5	7.6	5.7	3.0
13	Other industry	2.5	4.8	2.1	3.4	4.7	4.6
	Industry, total	95.2	98.7	99.3	96.0	98.5	97.9
14	Agriculture	3.6	1.2	0.6	2.6	1.4	2.0
15	Other branches	1.2	0.1	0.2	1.4	0.1	0.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0

Based on data at Soviet domestic prices for 1990–1991 and at current prices for 1992. Total exports and total imports are given as the sum of exports to or imports from third-party countries and former Soviet republics.
Source: Ministry of Statistics of Ukraine, *Ukrainian Input-Output Tables* for 1990–1992.

self-sufficiency rate would also show a marked decrease in 1992 because its export share in the year shows a remarkable change: from 32.8% in 1991 to 15.5% in 1992, similar to what is actually observed in the Ukraine. The impact analyses for the years from 1989 to 1991 suggest that the core of the Russian domestic production is constituted by machine industry, half of which has been related to military demand, and light industry. Thus, reduction of final demand for these industries, including exports, and a delay of military conversion and technical progress will prove to be fatal to Russia's domestic production system. This is also true for the Ukraine.

In conclusion it should be emphasized that due to the lack of necessary input–output data (e.g., official or preliminary I–O accounts) and reliable trade data for Russia of 1992, a thought-provoking analysis of the economy in transition has been difficult. Although the statistical environment in the

Ukraine appears to be better than in Russia at a glance, it should be noted that this is simply due to the marked delay of marketization in the Ukraine.

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Part II

The Impact of Policy and the Domestic Market on Foreign Trade

Chapter 4

Political and Economic Instabilities and the External Activities of Russian Enterprises

Vladimir B. Panitch

State monopoly was the most distinctive feature of Russia's foreign trade until the late 1980s. All exports and imports passed through a bottleneck of some 50 state-owned companies and were removed from the commercial activities of Russian enterprises.

Since that time the situation has changed dramatically: in 1993 and the first quarter of 1994 privately owned enterprises accounted approximately for 60% of Russia's exports and 65% of its imports (VNIKI estimates). These figures, although important, do not reflect the whole scope of the crucial changes in Russia's foreign trade. The main changes are not quantitative but qualitative. One of the most important is that Russian companies dealing in export and import trade are exposed to political and commercial risks in both domestic and foreign markets. These risks are unpredictable, and they are common to all Russian enterprises. But they differ significantly from those in Western economies; this must be kept in mind when examining Russia's foreign trade developments. Among these risks are the instability of the political situation, price distortions, and developments in enterprise financing in Russia; Sections 4.1, 4.2, and 4.3 deal with these factors, respectively. The main objective of this paper is to consider the influence of these risks on the current situation and future developments of external activities of Russian enterprises.

4.1 Political Instability: Foreign Trade Aspects

The impact of political instability on the external activities of Russian enterprises has three main aspects. First, Western partners lack confidence in the effectiveness of long-term projects. Second, shifts in the economic policy of the Russian government endanger even short- and medium-term transactions. Third, political power has moved from the federal to the local level in ways that add to the uncertainty.

The lack of confidence of Western companies in the political stability in Russia is a major reason for mistrust in long-term projects and why external activities of Western partners are concentrated mainly on trade rather than on cooperation or joint ventures. Moreover, even foreign trade transactions between Western and Russian companies are conducted mainly on a short-term basis. Western companies may be blamed for this attitude toward their Russian partners, but their position is understandable. Russia is probably among the very few countries in the world where the political situation may lead to dramatic changes in economic policy, foreign trade policy, in particular. The weakening of Gaidar's team in late 1993 followed by Gaidar's resignation in January 1994 and the introduction of high import tariffs as a major part of a protective policy are good examples of recent changes; other examples are probable in the near future.

One possible reason for the fragility of the trade regimes is the absence of long-standing commercial traditions in Russia and a vague legislative basis for foreign economic activity including foreign investment. In comparison with most other countries, in some spheres of commercial practice in Russia (such as insurance, banking, and arbitration) legislation is very general and detailed regulation is missing. The laws already adopted and those now under discussion in parliament cannot be considered completely conventional either because most of them are of an emergency character that respond to the economic crisis in Russia. Another reason for the uncertainties is that the dramatic shifts in economic policy depend on personalities and their political views. Several leading political parties are opposed to the government and have a strong position in parliament. Communists and liberal democrats, in particular, have quite definite views on the foreign trade regime and the handling of foreign investors; these views could hardly be considered attractive for Western companies.

Therefore, external activities of Russian companies are concentrated mainly on short-term contracts, barter deals, and other "tied-up" transactions. Western partners are not very aggressive investors and fail to consider the potentially greater return on long-term projects in Russia compared with

other countries. The data on capital flows compared with the volume of both exports and imports illustrate this attitude. Foreign direct and portfolio investment in Russia's economy in 1993 amounted to $1.4 billion – less than 6% of the value of Russian imports (*Economika i Zhizn*, March 1994). In any Western country direct and portfolio investment as a percentage of the value of imports is significantly higher (cf. *Main Economic Indicators of OECD Countries*, Paris, OECD).

The legislation in the commercial and investment spheres should constitute a long-term basis for external activities. However, a prominent feature of current Russian economic policy is the predominance of contradictory measures, especially in regulation. Of course, these contradictions could be explained by the fact that to fight national economic crises the government has been forced to take emergency measures that do not always support the broad aims of economic policy. Nevertheless, it cannot be argued that often the explanation of inconsistent economic policy lies in the weak political position of the government *vis-à-vis* its opponents.

The foreign trade policy of the Russian government fluctuates between liberalism and restriction. To illustrate we take the situation of export quotas and licensing for export supplies. After export quotas and licenses were first introduced the government stated in a policy memorandum to the International Monetary Fund that all export quotas except those for energy and military products would be abolished by mid-1992 and would be waived by the end of 1993 (*Rossiskaya Gazeta*, February 28, 1992). But these plans never materialized and export quotas and licenses still existed at the beginning of 1994. Moreover, in early 1994 most experts took seriously the government's announcement that it intended to prolong nontariff restrictions on exports until the end of 1995 and to cut the list of commodities step by step (Russian Government Policy Statement, April 8, 1994). After only two months the president issued a decree providing that all nontariff restrictions, except those provided for by international agreements, were to be abolished (*Business TASS*, May 1994). Nevertheless, we must admit that the government has succeeded in liberalizing the export regime. *Table 4.1* shows the evolution of tax rates on major commodity exports. The rates reveal a process which led to a less restrictive system of export taxes by November 1993. The success in liberalization can hardly be attributed to a consistent government policy. We may only guess that this accomplishment is the result of a controversial political struggle and probably the outcome of some changes in the economic situation. The most probable reason for this positive trend is that Russia's inflation effectively depressed the profitability of exports in comparison with the sales in the domestic market.

Table 4.1. Basic export tariff rates, in ECU per metric ton.

Commodity	From 1 Jan. 92	From 1 Mar. 92	From 17 Jul. 92	From 15 Aug. 92	From 1 Jan. 93	From 1 Nov. 93
Crude oil	26	26	38	21	30	30
Coal	8	2	2	2	1	0
Coke	13	8	8	8	4	0
Natural gas	24	19	31	18	18	18
Petrol	57	57	55	55	40	40
Diesel oil	51	51	52	52[a]	30	30
Fuel oil	24	24	25	25	15	8
Nitrogen fertilizers	30	20	15	15	10	5
Timber	41	41	50	20	8	8
Lumber	100	70	70	50	35	7
Cellulose	69	69	69	50	30	15
Pig iron	31	21	21	21	15	0
Stainless steel	92	62	62	62	35	12
Aluminum	232	232	200	200	130	70
Copper	400	400	500	500	400	200
Nickel	1,600	1,600	1,500	1,500	1,200	640

[a]Tariff rate was reduced to 30 ECU per ton by the end of 1992.
Source: State Customs Committee.

Import regulation moves in a different direction than export policy. The latest developments in import tariffs and taxes (*Commersant Daily*, March 1994) indicate that the goals of liberalization of foreign trade proclaimed by the government and mentioned in its memorandum to the IMF have not been reached. There is little chance that they will be achieved in the near future. Import tariffs in 1993 were higher than those in 1992 for food and drinks, cars, and other consumer goods. In most cases the increases have nothing to do with economic policy but are the result of pressure from certain politicians and parties interested in increasing prices of domestically produced goods.

A major contributor to the political uncertainty is the shift of political power from the federal to the local level. The battle between central and local authorities is taking place in the economic and political spheres. For international economic activity the main issues in this struggle are the following:

- Power to set and collect taxes.
- Power to distribute centrally determined export quotas.
- Exemptions from export and import duties and taxes in certain territories and on certain enterprises.

Local authorities appear to be winning the struggle in the first two areas because the role of the central government in collecting taxes and in distributing export quotas is decreasing. As for privileges, the outcome was clear by the end of 1993 when the decision was taken to waive privileges previously granted to certain enterprises and territories because of their ineffectiveness. Notwithstanding the results of the struggle in these particular areas, it is clear that the confrontations of local authorities with the central government are major factors in political instability.

One more point is crucial in understanding the consequences of the shift of political power from the federal to the local level. The destruction of the state monopoly of foreign trade meant that every Russian company was granted the right to be engaged in foreign activities. But probably the real outcome of this was that local authorities have been granted the right not only to regulate foreign trade but to carry out foreign trade deals. Actually local political elites are engaged in external activities by themselves and are tied commercially to Russian and Western companies. This situation is not typical in any other country and is unique to the political situation in Russia. Of course, the political background of external economic relations has more dimensions than is given in this paper, but some generalizations can be made.

- The deep crisis in the national economy and the social disaster in Russia have created strong political forces that oppose the government in every possible way. The lack of political traditions in dealing with opposition parties and with local elites weakens the position of the central government in taking decisive measures to stabilize the situation. In this sense the situation in Russia may be considered politically unstable.
- The political instability in Russia has a widespread influence on the external economic activities of Russian enterprises. This impact is displayed openly by contradictory measures by the Russian government to regulate short- and medium-term foreign trade deals. The fluctuating changes in export and import tariffs, taxes, rules, and procedures of exporting and importing commodities and services have harmful effects on the external activities of Russian enterprises. Of course this conclusion has only a logical ground – the impact of political instability cannot be separated quantitatively from other factors influencing volume and value of foreign trade.
- The political weakness of the government and strong opposition in parliament is an obstacle to developing legislation regulating long-term capital transactions for land, capital assets, or government guarantees of foreign investment. This situation prevents Russian and Western companies from initiating stable and effective activities in the capital market.

4.2 Inflation and Price Instability: Challenges to Administrative Regulation

Price behavior contributes to the general external activity of Russian enterprises in two ways: through general inflation and through differences in world and domestic prices for major commodities.

According to official statistics wholesale prices in 1993 rose 9.98 times and consumer prices 9.07 times. The monthly rate of inflation in 1993 was 21.2% measured by wholesale prices and 20.2% measured by consumer prices. The monthly inflation rate for food products was 18.2% and for industrial consumer goods it was 21.7%. For the first two months of 1994 wholesale prices rose by 33% and consumer prices increased by 38%. During 1993 the quarterly inflation rates fluctuated substantially; the lowest rates of wholesale prices were in the second (20%) and fourth (23%) quarters and the highest were in the first (32%) and the third (26%) quarters.

These figures, although important, only serve as a background in understanding the external economic activities of Russian companies as well as

Western companies operating in the Russian market. Comparisons of domestic and world prices of major commodities are more significant. But before presenting such data, the price policy of the Russian government between 1992 and 1994 requires an explanation.

The policy of narrowing the difference between domestic and world prices was officially adopted at the beginning of 1992. At that time the government waived the state-regulated prices and assumed that it would succeed in keeping inflation within reasonable bounds. This assumption turned out to be wrong. Following the liberalization of prices, Russia had to overcome a very dangerous period of balancing on the edge of hyperinflation with a tight, though inconsistent, monetary and fiscal policy.

This period has probably not ended, and it is too early to confirm if a somewhat stable price system has emerged. The monthly rate of inflation, however, was less than 10% for several months in late 1993 and early 1994, reflecting a tight monetary and fiscal policy.

The data in *Table 4.2* (comparison of wholesale and world prices for major export and import commodities) show that the somewhat contradictory policy of bringing domestic prices closer to the level of the world market prices had some significant results. The commodities can be grouped into three categories.

The first group consists of the goods in which differences between domestic prices and world prices became even wider between 1991 and 1994; the policy of the government did not succeed with this group. This group includes maize, timber, wool, cotton, zinc, as well as others.

The second group includes products whose domestic price fluctuated from 1991 until 1994, but remained stable as a percentage of the world prices. This group consists of aluminum, coal, copper, and butter.

The third group includes goods whose prices show positive results by achieving a small difference between domestic and world prices. It consists of the goods that were impacted most by inflation, which drove up domestic prices. These products are crude oil and petroleum products, ferrous and some nonferrous metals, fertilizers, wheat, and other commodities. Domestic prices of these products were extremely low compared with world prices in the late 1980s.

Raising domestic prices by inflation was surely not the aim of economic policy of the government. Therefore, results should not be measured only by comparing domestic and world prices. The main objective, as it was proclaimed a few years ago, was to achieve structural changes in the national economy, and these changes should have been accelerated by changes in domestic prices. With this in mind, we may conclude that the policy of

Table 4.2. Wholesale prices in Russia as a percent of world prices.

Commodity	1991	1992	1993	1994
Butter	83	63	33	86
Wheat	43	42	31	57
Maize	89	86	88	59
Coal (for energy use)	50	70	60	50
Crude oil	13	25	30	42
Benzine	9	28	43	92
Diesel oil	9	25	34	83
Residual oil	7	23	37	38
Natural gas	3	13	9	22
Carbamide	5	39	39	59
Timber	51	32	29	37
Lumber	17	15	8	37
Wool	71	65	60	22
Cotton	63	60	54	50
Steel sheet (cold-rolled)	27	32	18	51
Reinforcing bars	25	40	23	56
Copper	45	45	38	49
Nickel	31	50	51	44
Aluminum	71	41	54	71
Lead	51	72	75	77
Zinc	83	77	51	54

Sources: Ministry of External Economic Relations of Russia; National Market Research Institute (VNIKI), Russia; *Economica i Zhizn*, January–February 1994; Commersant January–February 1994.

increasing the domestic prices to world market levels has not been a success. By now there are only rising prices with few or no structural changes.

The impact of domestic price changes on foreign trade and capital transactions had three aspects:

- Rising domestic prices reduced the supply response of exports. The supplies of major commodities were irresponsive to increased export prices (see *Table 4.3*). The situation could, of course, change. Energy sector exports, which account for more than half of total exports, show little supply response because the difference between domestic and world prices, except for coal and residual oil, are subject to export duties that reduce profits from exporting. The same is true for nonferrous metals, most ferrous metals, and timber products. There were periods in 1992–1994 – for example, January and February 1992 for timber

Table 4.3. Main indicators of exports in Russia.[a]

Commodity	1989 Quantity	1989 Value mln. $	1989 Share %	1992 Quantity	1992 Value mln. $	1992 Share %	1993[b] Quantity	1993[b] Value mln. $	1993[b] Share %
Export, total	–	74,714.50	100.00	–	39,967.40	100.00	–	40,461.20	100.00
Fresh, frozen fish, thou.t.	375.6	169.30	0.23	444.7	587.80	1.47	535.4	698.10	1.73
Coal, mln.t.	20.5	1,075.30	1.44	18.1	747.40	1.87	20.3	662.50	1.64
Crude oil, mln.t.	118.8	19,184.80	25.68	66.2	8,544.80	21.38	79.1	8,624.40	21.32
Petrol. prod., mln.t.	54.4	7,523.50	10.07	25.3	4,170.80	10.44	32.2	3,602.40	8.90
Natural gas, bln. m^3	87.4	8,941.70	11.97	87.9	7,479.40	18.71	95.0	7,600.00	18.78
Ores, conc., mln.t.	12.0	260.30	0.35	8.2	206.60	0.52	5.4	124.60	0.31
Ammonia, thou.t.	3,861.2	225.90	0.30	2,435.4	192.30	0.48	2,870.7	228.50	0.56
Fertilizers, thou.t.	–	1,166.20	1.56	–	1,107.80	2.77	–	825.20	2.04
Nitric	4,014.1	486.50	0.65	8,042.0	503.70	1.26	4,226.8	315.30	0.78
Phosphoric	500.2	62.70	0.08	129.5	23.40	0.06	125.3	13.30	0.03
Potash	3,295.3	301.40	0.40	4,123.3	290.50	0.73	2,320.9	152.50	0.38
Timber, mln. m^3	18.1	1,027.00	1.37	10.7	519.70	1.30	10.5	618.10	1.53
Lumber, mln. m^3	7.5	1,237.20	1.66	2.8	367.20	0.92	–	397.00	0.98
Ferrous metals, thou.t.	4,310.1	1,391.50	1.86	6,268.1	1,473.70	3.69	12,100.0	2,662.10	6.58
Pig iron, thou.t.	2,669.6	342.20	0.46	1,930.9	244.70	0.61	1,878.6	195.70	0.48
Ferrous alloys, thou.t.	356.1	175.10	0.23	202.9	86.50	0.22	250.2	138.60	0.34
Nonfer. metals, thou.t.									
Nickel	86.8	1,027.10	1.37	118.3	715.10	1.79	17.9	90.70	0.22
Aluminum	672.2	1,232.80	1.65	964.2	1,230.80	3.08	1,250.2	986.30	2.44
Machinery, equip.	–	20,194.00	27.03	–	5,696.80	14.25	–	5,300.00	13.10
Cars, thou. unit	286.4	988.10	1.32	395.7	1,306.30	3.27	251.1	756.10	1.87
Other goods	–	9,540.60	12.77	–	6,596.00	16.50	–	7,707.00	19.05

[a]Excluding the area of former Soviet Union.
[b]Preliminary unadjusted data.
Source: Goskomstat, Russia.

products and the autumn of 1993 for coal – when export supplies were nearly blocked.

The short-term trend in domestic and world prices comparisons does not provide the full picture. For most export-oriented industries, foreign trade does not represent the source of extra earnings and exports are regarded only as the chance to find a buyer to offset the weakness of the domestic market. When there are the slightest signs of recovery in the domestic economy, export supplies will fall substantially.

- In the economic situation of Russia from 1991 to 1994 an increase in the profitability of imports could have been expected, but this did not happen. Again, the volume of imports responded slightly to import prices (see *Table 4.4*), and depended mainly on the ability of the budget to subsidize purchases. The demand for traditionally imported commodities was reduced sharply because the federal budget reduced purchases of heavily subsidized goods (wheat, meat, milk, and pharmaceuticals). At the same time there was an increase in purchases of goods such as tobacco and tobacco products, tea, coffee, beer, and spirits. Importers of other commodities were not responsive to the improved opportunities of buying abroad because of the lack of money. In addition the import tariffs instituted in 1994 remain a great obstacle to increasing imports.
- Another important issue of price distortions is of medium- and even of long-term significance. For many years low domestic prices for energy and raw materials, as well as low labor costs, were one of the three principal factors contributing to the international competitiveness of Russian manufactured goods. The other two were politically tied foreign markets (where competitiveness of Russian goods was of minor importance) and the federal budget that provided financing and import subsidies.

Politically tied markets are now transforming into "traditional" markets where the competitiveness for Russian goods is rapidly declining. Still, these markets, even without improvements in the competitiveness of the Russian goods, will be technologically tied to Russian supplies for some time.

The federal budget will not provide foreign-trade-related financing and subsidies over the long run. Low input prices are likely to disappear. The reaction of industry to such developments has been quick; in 1993 the share of machinery and equipment in total exports fell from 14.8% to 11.1% because of the reduced competitiveness of Russian machinery and equipment. We expect a further dramatic fall in the exports of these commodities in the near future. Further insight is provided on the relationship of the domestic and world market prices for goods in Russia's foreign trade in the Appendix.

Table 4.4. Main indicators of imports in Russia.[a]

Commodity	1989 Quantity	1989 Value mln. $	1989 Share %	1992 Quantity	1992 Value mln. $	1992 Share %	1993[b] Quantity	1993[b] Value mln. $	1993[b] Share %
Import, total	–	78,045.70	100.00	–	34,981.30	100.00	–	19,350.50	100.00
Quick-frozen meat thou.t.	399.3	583.80	0.75	290.9	387.10	1.11	87.3	123.80	0.64
Grains, mln.t.	22.1	2,952.30	3.78	28.9	4,158.70	11.89	11.8	1,998.30	10.33
Wheat	8.2	1,306.60	1.67	17.6	2,563.30	7.33	7.7	1,120.00	5.79
Maize	11.0	1,307.60	1.68	5.5	826.70	2.36	1.3	97.90	0.51
Barley	2.1	250.80	0.32	4.0	504.60	1.44	2.8	428.50	2.21
Wheat flour, thou.t.	94.0	22.00	0.03	944.0	264.10	0.75	67.2	16.30	0.08
Vegetable oils, thou.t.	557.0	268.20	0.34	405.1	234.70	0.67	64.5	47.80	0.25
Raw sugar, thou.t.	4,036.8	4,825.90	6.18	2,137.0	572.00	1.64	2,066.8	458.40	2.37
White sugar, thou.t.	193.9	83.40	0.11	1,554.2	587.80	1.68	695.7	283.80	1.47
Chemicals, plastics	–	2,225.60	2.85	–	867.10	2.48	–	306.90	1.59
Pharmaceuticals	–	1,976.00	2.53	–	941.80	2.69	–	330.00	1.71
Insecticides	–	428.90	0.55	96.5	356.30	1.02	26.1	258.40	1.34
Clothes	–	2,942.10	3.77	–	1,626.00	4.65	–	884.80	4.57
Footwear, mln. pairs	70.1	1,277.00	1.64	101.8	1,248.40	3.57	28.8	465.30	2.40
Ferrous metals, thou.t.	3,297.6	1,574.40	2.02	542.3	306.10	0.88	–	155.00	0.80
Pipes, thou.t.	2,589.8	1,987.60	2.55	447.3	368.10	1.05	296.5	245.10	1.27
Machinery, equip.	–	19,666.60	25.20	–	13,416.40	38.35	–	6,290.00	32.51
Railway goods vans, pieces	8,574.0	706.50	0.91	1,890.0	216.40	0.62	–	290.30	1.50
Cars, thou. units	–	–	–	108.8	676.90	1.94	25.8	130.60	0.67
Other goods	–	37,231.60	47.70	–	9,645.60	27.57	–	7,942.60	41.05

[a]Excluding the area of former Soviet Union.
[b]Preliminary unadjusted data.
Source: Goskomstat, Russia.

4.3 Enterprise Financing: Sequence of Macroeconomic Policy

Enterprise financing is an issue that has many aspects. In this paper we concentrate only on those aspects that are specific to the external activities of Russia enterprises and influence the volume and structure of foreign trade:

- The developments in the money market, for both the ruble and hard currency, and access of Russian enterprises to short- and medium-term loans.
- Specific financial risks in the external activities of Russian enterprises.

At the macroeconomic level the developments in money markets in Russia during 1993 and the first quarter of 1994 may be considered quite satisfactory in comparison with 1992 despite some weak points. There are four main positive features.

First, the Central Bank of Russia (CBR) has tightened credit issued to the government, to commercial banks, and to other CIS countries. The credits issued by the CBR in the fourth quarter of 1993 were 7.6% of GNP compared with 20.5% in the first quarter of that year.

Second, unified (with some exemptions) interest rates and terms for loans have been introduced, as well the volume of subsidized loans was substantially reduced. The rise in the CBR interest rate to 180% in September and to 210% in October brought the money rate of commercial banks to the level corresponding to the rate of inflation. The real CBR rate increased from −25.7% in January 1993 to +1% in March 1994 (National Market Research Institute estimates).

Third, direct and indirect import subsidies have been dramatically reduced. Sale of hard currency at preferential rates stopped and indirect subsidies on import purchases were reduced from 12% to 2% of GNP in 1993 (CBR data).

Fourth, tightening of the budget expenditures has reduced the budget deficit from 10% of GNP in the first quarter of 1993 to 7% in the third. As a consequence money in circulation (M2) fell by more than 35% in the fourth quarter of 1993.

Given the situation in the money market, the difference between the macroeconomic approach and the microeconomic approach must be taken into account. Thus, the positive features of the money market look less positive and even negative in terms of the situation facing any enterprise in foreign trade transactions.

The fight against inflation brought a serious credit squeeze: average interest rates rose from 210% in August 1993 to 260% in March 1994. These figures are averages because the market does not have a single rate; the 213% rate of the CBR for loans is transferred to customers through commercial banks at auctions (this makes up approximately 40% of total loans). A slightly higher rate is applied to companies that are shareholders in commercial banks and much higher rates are set for all other companies. These rates are not considered a heavy burden on enterprises even with the reduced inflationary trend and even if we take into account that the majority of enterprises engaged in external economic activities have to borrow money because of their lack of current assets.

Two major factors must also be considered in a study on enterprise financing: inter-enterprise payments arrears and the terms of payment. Inter-enterprise arrears (on a credit basis) amounted to R 47 billion at the beginning of 1994. This amount includes R 16.4 billion of overdue debt. In the overdue debt (data for September and October 1993) the fuel industry accounts for 27%; chemical- and oil-processing industry, 12%; ferrous metallurgy, more than 11%; nonferrous metallurgy, 5%; and the wood industry, 4% (*Investment and Conversion Survey*, No. 5, November 30, 1993). Accordingly, major export-oriented industries accounted for 60% of the total overdue debt. (The figures are approximately the same if calculated on a debit basis.) The situation in major importing industries is also serious, given that the energy and metallurgical sectors account for a significant share in imports.

We must keep in mind that, although the nominal figure of inter-enterprise arrears grew more than 5.5 times from the previous year, real arrears (corrected by the rate of inflation) fell by almost two times. Nevertheless, a problem exists, and it is growing because the financial sources of enterprises are exhausted and the share of overdue debt remains very high.

The inter-enterprise arrears have led to barter and other tied-up transactions. The situation is the same in both domestic and foreign trade markets. The share of barter deals and other tied-up transactions gives an indication of the situation. The volume of Russian exports (excluding other countries in the FSU) in 1993 was $43.0 billion (Goskomstat, revised data), and barter export deals amounted to $5.2 billion or 12.1% of total exports (Ministry of External Economic Relations data). The main commodities supplied through barter trade were ferrous and nonferrous metals, coal, crude oil, and oil products; these commodities are produced by heavily indebted industries in Russia. We may add that this situation is practically the same as that in the home market where a high ratio of trade is carried out through barter.

The terms of payment, however, in foreign trade transactions of Russian enterprises differ significantly from those in the domestic market. Due to political instability and uncertainty in the financial status of Russian companies, Western partners insist on payment schemes that are absolutely inefficient for Russian companies. Usually payment for export supplies from Russia is made after the goods are dispatched or even delivered to a foreign partner. The payment scheme for imports is the opposite – Russian companies have to pay for the goods immediately after the contract is signed. Payment patterns in the domestic market are rapidly shifting toward the request for advance payments by domestic sellers.

The payment schemes in the foreign trade leave a gap of three months or more for Russian companies; during this time the real costs of the goods exported increase because Russian firms must borrow money from the market to cover the gap between production and delivery. Under these circumstances financing of foreign trade transactions is a great obstacle, and the volume of goods exported and imported would increase if the payment schemes were altered.

The situation in the foreign exchange market in Russia is important for those companies engaged in foreign trade. The foreign exchange regulation in 1993 and in the first quarter of 1994, leaving aside exceptions in September and January, was quite successful. The Central Bank followed developments in the foreign exchange market and in most cases succeeded in steadily increasing the dollar rate against the ruble. This policy, especially in comparison with the policy in 1992, provided more stability for commercial foreign trade transactions and provided more predictable schemes of financing.

The rate of the depreciation of the ruble was much lower than the rate of inflation so that domestic prices for major export and import commodities increased less than for domestically produced ones. It may be argued that these developments in the foreign exchange market have a negative impact on exports because they restrain the increase in export supplies. The elasticity of export supplies to changes in the current exchange rate, however, is low because of export duties, quotas, and licenses that effectively regulate the volume of exports. We must also keep in mind that the difference between domestic and world prices still leaves a profitable gap for the export of some commodities.

Imports also have a low elasticity to changes in exchange rates because the gap between world prices and high Russian prices is quite wide for the commodities that are imported. As a result, such products will be imported even if the ruble depreciates in real terms. The import of other goods,

however, will remain unprofitable even if the ruble appreciates by a further 20–25%. For the present we assume that the current volume of imports is adequate for the critical situation of the national economy.

We have considered only some issues in the current situation in external economic activities of Russian enterprises. Although these issues are important, there are still many more that must be investigated to provide a complete picture. There is another, not so evident, impact of political instability. Price changes and financing of enterprises depend on economic policy itself, so policy changes also have indirect impacts on the external activity of Russian enterprises.

Appendix: Domestic and world prices in Russian trade using purchasing power parity calculations

A comparison of domestic and world prices may lead to the assessment of the purchasing power parity (PPP) of the ruble against hard currencies. We do not calculate exact figures of PPP according to widely accepted methodology, but as a first attempt we make an assessment on a limited number of commodities traded internationally. For this purpose we define PPP in a narrow sense as a relationship of domestic and world prices of the commodities traded internationally by Russian companies. The measure corresponding to this definition (K_1) at the commodity level is equal to the domestic price of a commodity expressed in rubles divided by the representative world price in any hard currency (in this example we use US dollars):

$$K_1 = \frac{Pd}{Pw} \ ,$$

where K_1 is the coefficient expressing the relationship of the domestic and world prices of a single commodity, Pd is the domestic price of a commodity in rubles, and Pw is the world price of a commodity in dollars.

Coefficients for single commodities are then put into commodity groups that represent Russian exports and imports. The measure for commodity groups coefficient (K_2) is defined as

$$K_2 = \frac{N}{\sum \frac{1}{K_1}} \ ,$$

where K_2 is a coefficient expressing the relationship of the domestic and the world prices for a commodity group and N is the number of commodities included in a commodity group.

The group coefficients are then weighted by the value of exports and imports, respectively. For this purpose the export and import trade (Vd) valued at domestic prices are calculated

$$Vd = \frac{Vw}{K_2} \ ,$$

where Vd is the value of exports or imports, respectively, of a commodity group at domestic prices and Vw is the value of exports or imports, respectively, of a commodity group at world prices.

The measure for the total export and import coefficient (K_3), which we call PPP for commodities exported and imported, is defined as

$$K_3 = \frac{\sum Vd}{\sum Vw} ,$$

where K_3 is PPP for exports and imports, respectively.

The commodities selected for PPP calculation represent about 70% of Russian exports and about 50% of Russian imports. To make the calculation more precise we tried to select commodities that are similar or of the same quality in international trade and in the domestic market. If the quality is not the same, we selected the approximate standard, less-differentiated products. Consequently machinery and equipment is not duly represented, especially in imports, and raw materials and agricultural goods prevail in both exports and imports. The results of the calculation are shown in *Tables 4A.1* and *4A.2*. Three general comments can be made on the relationship of export and import PPPs.

1. PPP calculated using the commodities exported and weighted by their share in Russian exports (let's call it exports parity) is almost as low as half the PPP calculated using commodities imported and weighted by their share in Russian imports (imports parity).
2. One reason for this low figure of exports parity could be export duties, which raise the coefficient of price relationship by approximately 20%. The difference between import parity and the rate of exchange may be that, although import subsidies were waived by the end of 1993, some of the imported goods are still subsidized at the subsequent stages by price differences at different stages of manufacture.
3. While interpreting export and import parities one must keep in mind that a number of commodities were excluded from the assessment due to low comparability of the goods traded in the domestic and international markets. Had capital goods been included, the results of the PPP assessment would have been quite different.

Table 4A.1. Relationship of domestic prices in Russia and export prices at the beginning of 1994 (weighted by commodity share in Russia's exports in the first quarter of 1994). Prices are listed per metric ton unless otherwise specified; rate of exchange R 1567/$1 (February 18, 1994).

Commodity	Foreign trade classif. code (HS)	Export price, $	Domestic wholesale price, rubles	Ratio of domestic price to export price
Cement	2523			428.57
Portland cement		70	30,000	428.57
Coal	2701			864.55
Energetic coal		24	18,000	750.00
Coking coal		49	50,000	1,020.41
Crude oil	2709			544.55
Crude oil		101	55,000	544.55
Oil products	2710			1,007.73
Benzine		145	210,000	1,555.56
Diesel oil		135	170,000	1,259.26
Residual oil		77	50,000	649.35
Natural gas	271121			363.91
Natural gas (per 1,000 m^3)		69	25,110	363.91
Nitric fertilizers	3102			916.67
Carbamide		120	110,000	916.67
Wood in the rough	4403			586.21
Round wood (per m^3)		29	17,000	586.21
Sawn, sliced, or piled wood	4407			583.97
Sawn wood (per m^3)		242	141,320	583.97
Ferrous metals	72 (excl. 7201–7204)			639.27
Cold-rolled steel sheet		345	210,000	608.70
Reinforcing rounds		260	175,000	673.08
Copper	7402, 7403			778.86
High-grade copper		1,854	1,444,000	778.86
Nickel	7502			635.33
Nickel, high grade		5,830	3,704,000	635.33
Aluminum	7601			1,101.33
Aluminum, 99.99		1,283	1,413,000	1,101.33
Lead	7801			1,118.79
Lead		463	518,000	1,118.79
Zinc	7901			821.73
Zinc		948	779,000	821.73
Motor cars	8703			2,187.66
"Samara–1300 LS"		3,970	8,685,000	2,187.66
Total, above goods				652.89

Table 4A.2. Relationship of domestic prices in Russia and import prices at the beginning of 1994 (weighted by commodity share in Russia's imports in the first quarter of 1994). Prices are listed per metric ton unless otherwise specified; rate of exchange R 1567/$1 (February 18, 1994).

Commodity	Foreign trade classif. code (HS)	Import price, $	Domestic wholesale price, rubles	Ratio of domestic price to import price
Meat, fresh/frozen	0201–0204			1,224.62
Beef		1,400	1,559,300	1,113.79
Pork		1,400	1,903,920	1,359.94
Butter	0405			1,492.82
Butter		1,350	2,015,307	1,492.82
Coffee	0901			2,508.09
Coffee beans		1,236	310,000	2,508.09
Tea	0902			2,765.96
Tea		1,410	3,900,000	2,765.96
Wheat	1001			735.36
Wheat		181	133,100	735.36
Sugar, white	170199100			1,896.55
Sugar, white		290	550,000	1,896.55
Cigarettes	2402			2,164.95
Marlboro cigs. (box)		0.32	700	2,187.50
Rodopi cigs. (box)		0.14	300	2,142.86
Medicines	3003–3004			1,725.40
Aspirin 0.5x20		1.26	2,174	1,725.40
Plastics	34			710.74
PET, high density		605	430,000	710.74
Wool	51			342.86
Wool, washed		3,500	1,200,000	342.86
Apparel	6162			1,754.39
Tights, elastic (piece)		0.45	750	1,666.67
Men's jumper, pure wool (piece)		27	50,000	1,851.85
Leather shoes	6403			3,000.00
Men's leather shoes (pair)		15	45,000	3,000.00
Ferrous metals	7208–7212			608.70
Cold-rolled steel sheet		345	210,000	608.70
Machinery and equipment	86–93			1,092.97
PC with printer (unit)		750	1,400,000	1,866.67
Color TVs (51 cm) (unit)		210	450,000	2,142.86
Bakery mini plant 1000kg/shift		115,000	66,000,000	573.91
Total, above goods				1,137.58

Chapter 5

Policy Making and the Evolution of Foreign Trade Regimes in Russia: 1991–1994

Pekka Sutela

The level of Russia's trade with convertible currency areas has declined and has been slow in recovering. The modest Russian supply response to officially declared trade liberalization and steep ruble devaluation has been the subject of considerable speculation, although there has been little analytical research. There is uncertainty about the exact state of Russia's rapidly evolving foreign trade regime. Even Russia's foreign trade partners, both *ex ante* and more surprisingly *ex post*, and Russian traders are unclear about what has happened. It is, therefore, interesting and significant to examine how the rules have changed, and to examine how Russian producers, buyers, and distributors have adapted themselves to this peculiar administrative uncertainty.

One should emphasize that the rules of the Russian foreign trade game have changed in recent years. For the most part they are moving in the right direction, if our admittedly imperfect understanding concerning the nature and causes of the wealth of nations is the standard for judging. Foreign trade liberalization is one area where the Yeltsin–Gaidar and the Yeltsin–Chernomyrdin administrations can claim real, albeit partial, success. The

The views presented are those of the author and do not in any way represent those of the Bank of Finland. This article uses Sutela (1993), which is partly based on Sutela and Kero (1993).

situation may not have always developed the way policy makers and advisers would have wished, but at least it has changed.

A look at the state of Russia's (or actually the USSR's) trade regime in 1991 with the West should make this clear. This is done in the first section of this paper. To illustrate the speedy and to some degree even chaotic nature of the transformation, the next section provides an overview of the changes in trade rules up to early 1994; subsections assess the actual state of the trade regime in 1993 and the first half of 1994. The next section discusses systematically some crucial issues in Russia's trade liberalization. We address the adaptation strategies of Russian enterprises in the face of the economic, political, and administrative uncertainties created by the changes in the Russian foreign trade regime. The chapter ends with conclusions and some predictions.

This article focuses only on commodity trade and the exchange regime. Payment systems, capital flows, and indebtedness are thus largely omitted. Furthermore, the emphasis is on Russia's trade with the West, defined here as the traditional hard-currency economies.

5.1 The Roots of Tradition: Russian–Western Trade Regime in 1991

5.1.1 The fundamentals

It is useful to start by restating the basic features of foreign trade in the traditional Soviet economy. First, foreign trade was seen as a way of dealing with the residuals of overall planning. Imports were needed to overcome domestic supply bottlenecks and to deal with technological innovation. Imports were not allowed to compete with domestic production. The general thrust was on import substitution. Exports were regarded as only the means of paying for imports. Beyond that exports were considered an outflow of much needed resources and commodities. Second, to maintain controls, to concentrate expertise, and to exploit economies of scale, foreign trade was made the legal monopoly of state-owned foreign trade enterprises. Their activities were closely monitored and directed by foreign trade and planning authorities. Third, domestic enterprises were effectively isolated from the direct effects of trade by separating foreign trade prices from domestic prices by a vast set of commodity- and country-specific price coefficients and by applying a highly arbitrary system of exchange rates. Foreign trade revenue was a major source of income for the general government budget.

These classic principles were amended during the years of perestroika. In 1987 exporters were allowed to retain some of their foreign exchange earnings and to use them for imports within specific limits to provide an incentive for exporting. The government also started giving trading rights to entities other than the traditional state foreign trade organizations. Further decentralization followed in 1989. The legal monopoly of the Vneshekonombank (VEB) in currency transactions was abolished, as licensed banks were now allowed to deal with foreign exchange. Foreign exchange auctions were established, though in practice they remained insignificant until 1992.

Reforms during the perestroika period did little to change the basic character of the Soviet foreign trade system, although they did indicate increased possibilities for decentralized import. Therefore, they contributed to the Soviet debt problem, which was essentially created during the perestroika years (Christiansen, 1993).

The classic characteristics of planned foreign trade were transformed between 1991 and 1994. Changes started in the USSR, and have continued in Russia. This paper presents the argument that the Russian trade environment between 1992 and 1994 can be divided into three phases. The first half of 1992 was the period of liberalization. This trend was overtaken by a partial recentralization and stabilization of the situation from mid-1992 to mid-1993. After that, the macroeconomic stabilization policies created a new trading environment by appreciating the real exchange rate. Over a longer period of time, the ruble still has much room for appreciation.

As background, one may be well advised to bear in mind the words of Petr Aven, the 1992 Russian minister for foreign economic relations in 1992:

> The historic role of Yegor Gaidar's government (at least as it was seen by its members) was to provide an "institutional shock" to the economy, i.e., to destroy the traditional stereotypes and mindset of the centrally-planned economy. [Aven, 1994, p. 81]

5.1.2 Foreign trade outcome beginning in 1991

The year 1991 was one of deterioration, uncertainty, and upheaval in Russian society. Western trade was not unaffected by these developments. According to official statistics, total Soviet exports declined by 32% and imports by 44%. Such drastic drops in imports yielded a trade surplus, but at a much reduced level of activity.[1] The decline continued in 1992, but in 1993 exports, as recorded in the statistics, stabilized and some even grew slightly. The decline in imports continued, and Russian authorities initially reported a huge trade surplus of some $16 billion for 1993. This was later scaled

down to $10.75 billion (*Finansovye Izvestiya*, 28 April–4 May 1994). In the second half of 1993, imports increased much faster than exports. This reflected the approximately 150% real appreciation of the ruble when the nominal exchange rate was stable in spite of high inflation. During the first four months of 1994, statistically recorded Russian exports continued their modest growth. As imports were 30.8% lower than the previous year, a trade surplus of $7.8 billion was officially recorded.

The Russian foreign trade figures, however, should be treated with great caution. The reduction of the estimate of Russia's trade deficit for 1993 is one example of how initial numbers change. Another example is Russia's imports from Finland in 1993. Russian statistics show a decrease of 57% whereas Finnish statistics show that exports to Russia doubled. While there may be some variation in the treatment of reporting by country of origin, most of the difference between the two figures is probably due to deficiencies in Russian statistics. Underreporting by exporters – largely for the purpose of hiding currency revenue – has clearly increased since 1991. Underreporting of imports can be explained by using payments as a way to place capital abroad.

Measurement problems have been exacerbated by fluctuations in prices and rates of exchange. Foreign trade shocks have occurred regularly since 1991. In 1991 there was the demise of the CMEA, then in 1992 that of the USSR. In 1993, the ruble zone disappeared. The latter half of that year also saw a major real appreciation of the ruble exchange rate. This was accompanied by the abolishing of import subsidies, as discussed below. Finally the price of oil almost collapsed in 1994, taking Russian energy export revenue down by some 17–20% in the first quarter of 1994 (Reuters, 29 April 1994). At the same time Russia benefited markedly from improving terms of trade, as earlier the price of Russian exportables within the former Soviet Union (FSU) had been negligible and prices in CMEA trade relatively low.

Overall, published Russian trade statistics tend to overestimate the drop in foreign trade turnover. The export decline was concentrated in two branches: oil and armaments. The decline in Russian oil production left the country with fewer exportables, while the value of military equipment export may have declined by more than $10 billion between 1990 and 1993. The loss to Russian currency revenue was substantially less, as most traditional arms exports had the character of assistance.

The increase in Soviet debt and the drop in the currency income of the central authorities in 1991 contributed to a liquidity crisis for the USSR. The crisis had been developing over several years. Additional financing from abroad for foreign trade was generally unavailable by the autumn of 1991.

In December 1991 Russia's net international reserves were close to zero. This, through various multiplier effects, contributed to turning the payments crisis into a structural solvency crisis. Russia has yet to emerge from this misfortune. One must emphasize, however, that this crisis is not of a global character. Judging by most macroeconomic characteristics, Russia is not a highly indebted country. If widely circulated estimates on the amount of currency available to Russian residents have any factual basis, the Russian debt crisis is basically a problem in the relations between the state and its citizens. It does not concern the economy's capacity to generate the revenue necessary for servicing debt (Laurila, 1993).

5.1.3 Attempts at foreign trade reform

These developments cannot be blamed on a neglect of the foreign trade sector by Russia's decision makers. Even before August 1991, Soviet decision makers were preoccupied with foreign trade. Prime Minister Pavlov repeatedly emphasized that Soviet integration into the world economy was both a short-run means of overcoming the economic crisis and a crucial long-run factor to modernizing the economy. True, not all his pronouncements were as rational. The "great foreign banking conspiracy" theme of the partial monetary reform of March 1991 was the foremost example of continuing xenophobic undercurrents.

There was considerable Soviet legislative activity in 1991 concerning foreign trade.[2] The Supreme Soviet ratified various investment protection treaties. In July 1991, it passed the Law on Foreign Investment allowing completely foreign-owned subsidiaries and concessions. The government's crisis program in spring 1991 set the goal of making the ruble internally convertible, seemingly for trade purposes, by the beginning of 1992 (*Ekonomika i Zhizn*, 1991, p. 18). A presidential decree in May 1991 permitted all enterprises in basic industry to sell freely at home or to export 10% of their output – but only if they had fulfilled their centrally set export plan and were able to secure the relevant licenses (*Izvestiya*, 17 May 1991). As part of the general devolution of the USSR, the republics were formally given more powers to set quotas and issue export licenses. The central authorities, however, tried to cling to the power of allocating the exports of 15 main energy carriers and the export of raw materials, which together accounted for more than half of all Soviet exports (*Izvestiya*, 18 May 1991).

Still the fact remains that in 1991 the authorities tried to control foreign trade closely. All traders had to register. Registration now took place at the republic level, but this did not necessarily imply greater liberalism. The

same can be said of the 1991 devolution of the authority to set quotas and issue licenses from the central to the republic level. The behavioral rules of a deficit economy still prevailed. Controls were clearly seen as a way of preventing commodity outflow from the country.

5.1.4 Piecemeal evolution of the exchange rate regime

Traditionally, market-determined exchange rates were a phenomenon at best tolerated and at worst persecuted in the USSR. They were the worst kind of speculation that was punishable under the criminal code. There was a huge difference between market and official rates. Gradually, however, the situation started to change. After having introduced a "special rate of exchange" for tourism purposes in late 1989, Gosbank switched over to using an exchange rate based on the currency exchange rate in April 1991. For the first time, the Currency Control Law of 1 March 1991 authorized currency exchanges, thus undermining the official monopoly of VEB auctions. Moreover, in June 1991 Gosbank started to quote a so-called tourist rate of exchange, which was set between the earlier official rates and unofficial market rates. Finally, in December 1991 Gosbank stopped quoting the tourist rate and allowed the rate for cash to be determined by banks licensed to undertake foreign currency operations.

These developments introduced a very limited kind of convertibility for the ruble. At the same time, however, two other important exchange rates continued: the arbitrary "official" rate, which was still used for statistical purposes and for the measurement of foreign receivables; and the "commercial" rate, which was established in November 1990. This latter rate was much lower than the "official" one, but still far removed from the market rate of exchange. In fact, during 1991, the gap between the fixed and market-based legal exchange rates widened as a rapid increase in domestic liquidity resulted in a depreciation of the market exchange rates. The difference became untenable. The unification of exchange rates became not only economically rational but also administratively almost inevitable.

5.2 Russian Plans and Reforms in 1992

5.2.1 The original Yeltsin reform manifesto

The decline of central control in late 1991 made it increasingly difficult to manage the external situation. Enterprises shifted foreign exchange deposits from the VEB to other banks. Capital flight evidently increased, partially as

a result of very high currency retention quotas of enterprises. The policies of the increasingly independent republics varied. There was no agreement among the republics on which government body was responsible for new external commitments. The creditworthiness of the VEB declined. Finally, foreign creditors even held back disbursements of credits already committed. The country lost almost all of its official foreign reserves. In November, the G7 countries agreed to defer the payment of principal on the debt.

Two observations can be made. All through late 1991 and into 1992, actual government policies were determined more by attempts to increase the amount of currency available to the central authorities for debt management than by any consistent policy of foreign economic liberalization and the opening of the economy. It is obvious that concern over foreign currency availability was difficult to avoid, as official reserves had evaporated while foreign creditors were anxious to have at least a part of the money they lent returned. Yet, centralization of currency revenue could not be implemented without giving enterprises strong incentives and abundant possibilities to circumvent regulations. The *de facto* devolution of powers to enterprises was due more to the continuing deterioration of central authority than to any overall design. Perhaps such liberalization was simply unavoidable.

Russia became the center of legislative power in late 1991. President Yeltsin announced his economic reform plans in late October 1991 (*Izvestiya*, 28 October 1991). The liberalization of foreign trade was to have a central part in launching Russia's transition to the market economy, a very important statement of principle.

In November, Yeltsin issued a decree (O liberalizacii, 1991), effective at the beginning of 1992, that gave foreign trade rights to all Russian enterprises. Though some 25,000 Soviet enterprises already had such rights in 1991, Yeltsin's decree may be regarded as the eclipse of the state monopoly of foreign trade, one of the basic features of the traditional economic system. This decree is one of the most historic of the early Yeltsin administration.

The decree eliminated foreign trade registration. Some licensing requirements remained, but their scope was limited. The remaining licenses were to be auctioned among prospective traders. Fuels, raw materials, and certain commodities would for the most part still require both export and import licenses. Barter, allowed to some extent in mid-1991, was again restricted; barter does not generate currency revenue for taxation and cannot be confiscated by the central authorities.

The exchange regime was also overhauled. This time all enterprises and individuals were required to sell 10% of their currency revenue to the Central Bank of Russia (CBR). Sales would be at the CBR market exchange rate

– at the time different from the currency exchange market rate – and the accumulated reserves would be used to support the ruble exchange rate. In addition, enterprises exporting energy and raw materials were required to sell a further 40% of their currency revenue to boost Russian reserves, this time at a new commercial exchange rate. This rate was set to be disadvantageous for exporters, so an element of confiscation remained. In a continuing atmosphere of a deficit economy, this requirement was meant to restrict exports of crucial resources. At the same time such taxation was to be the mainstay of currency revenue available to the central authorities. The remaining currency revenue would be at the disposal of the enterprise, but was to be deposited in a Russian bank (*Rossiiskaya Gazeta*, 7 January 1992). The obligation to repatriate currency was formally decreed; not surprisingly, exporters did not do so.

The only explicit restriction on the market exchange rate was that of a maximum bank spread of 10%. Even very late in 1991, plans were published about introducing convertibility for current account transactions to begin 1 January 1992 (Gaidar in *Pravda*, 5 December 1991). This goal was postponed to March–April 1992 (Gaidar in *Izvestiya*, 24 December 1991) and then to a later date. These postponements reduced the credibility of the Gaidar team.

The November decree annulled import taxes until July 1992. On the other hand, new export taxes on energy and raw materials were introduced. Some were soon found to be so prohibitive that they must have arisen from a miscalculation (as admitted in Aven, 1994, pp. 86–87). By February 1992 export taxes had to be changed; this was the first in a series of readjustments of foreign trade rules that foreign partners soon found to be real obstacles in trade relations. Domestic traders also had to deal with these obstacles.

5.2.2 Policy memorandum of February 1992

In late February 1992 the Russian government published its first comprehensive economic program in a policy memorandum submitted to the International Monetary Fund (*Rossiiskaya Gazeta*, 28 February 1992). At that time the administration was negotiating for membership in the Bretton Woods institutions.

The memorandum stated that Russia would switch over to a dual exchange rate system by 20 April 1992. A floating rate would be used for current account transactions, and a separate fixed rate would be used for capital transfers. Subsequently Russia would unify the two exchange rates by pegging the earlier floating rate. Currency taxation would also be overhauled.

There would be a 20% export tax on all currency revenue. All export quotas, with the exception of those for energy carriers and certain military or related commodities, would be abolished by 1 July 1992. Export quotas for energy would be abolished stepwise by the end of 1993. A flat import tax of 15% would be introduced by 1 July, while all remaining quantitative import restrictions would be abolished. Finally, by June 1992, imports would be subject to VAT and excise taxes.

It soon proved impossible to abolish export licensing and quotas as planned. Most exports continued to be subject to quantitative restrictions, manufactures being the main exception. This action was deemed unavoidable, as the domestic prices of energy and raw materials were kept well below world market prices. In some cases domestic prices tended to diverge even further from world market prices after 1992 (Gavrilenkov, 1994).

The difference between international and domestic prices made the export of Russian commodities very lucrative. There was concern that a sufficient supply in the domestic market could only be secured through quantitative restrictions. But as the difference between prices remained, establishing a licensing authority between domestic and foreign markets created a situation that was bound to increase corruption, smuggling, and attempts to circumvent foreign exchange revenue repatriation, surrender, and taxation requirements. Early efforts at effective controls proved to be half-hearted and futile.

In early May the Russian government caused considerable confusion by announcing that the ruble would be made convertible on 1 July 1992 (*Financial Times*, 6 May 1992). This was meant to be the centerpiece of the second phase of Russian reform, that of privatization, convertibility, and later structural change. Domestic liberalization and economic stabilization were thought to be tasks that had essentially already been solved.

It was widely assumed that this announcement would create current account convertibility for residents. The ruble would float for the month of July, and a unified rate of exchange – perhaps R 80 per $1 – would be fixed on 1 August. Earlier plans for a special exchange rate for investment, thus, seemed to have been abandoned. The Russian government presumably was counting on the use of foreign support to create a suitable exchange rate (*Kommersant*, 1992:19). This, however, is not the usual role of currency stabilization funds. They are used instead to create confidence and to defend a feasible rate of exchange against speculative attacks, not to create an exchange rate regime. In the Russian case as well, foreign support was not to be available for the latter purpose.

5.2.3 The second stage of Russian transformation: 1 July 1992

In May 1992 the Russian Ministry of Foreign Economic Relations issued a policy paper outlining its plans for the rest of the 1992–1993 period (O strategii..., 1992). While reaffirming commitment to foreign trade liberalization, this policy paper clearly signaled a willingness to backtrack on foreign trade reform. Political pressure to reintroduce export controls had become too strong. Citing the importance of economic security, the paper pointed out ways to recentralize the exports of "strategically important raw materials," alleging that they were being dumped at prices that were too low by inexperienced local companies hungry for hard currency. The practical consequences of export liberalization were thus proving to be frightening. Concentrating on "strategically important raw material" exports – the overwhelming share of all Russian exports – in the hands of experienced foreign trade organizations authorized by the Ministry would also help end capital flight. The argument, presumably, was that controlling a much smaller number of exporters should be easier.

Promptly, President Yeltsin signed a decree to this effect (*Rossiiskaya Gazeta*, 18 June 1992). Strategic raw materials could only be exported by entities authorized by the Ministry. These included energy carriers, metals, timber, and certain chemical products. It was planned to shorten the list of commodities traded on a quota basis so that by the end of 1992 it would only include gas, oil, and petroleum products. Nevertheless, the Russian foreign trade authorities admitted that such licensing of exporters implies "a step backwards" (Aven in *Izvestiya*, 29 June 1992). Not unsurprisingly, the promised radical shortening of the list of commodities to be licensed and traded under quotas did not take place either in 1992 (see the decree published in *Rossiiskaya Gazeta*, 17 November 1992) or in 1993. By 1993 such "strategically important exports" covered some three-fourths of all Russian exports.

In retrospect Aven argued that the separate handling of "strategic exports" was not only a step backward but also a mistake. Once the principle had been established, it proved impossible to keep the list of strategic items short. Overall, his policy-making experience underlined the need for Russian liberalism: "any obstacle to economic activity, ..., will be circumvented in Russia, and therefore, this country has to be more liberal than any other" (Aven, 1994, p. 91). This is a strong argument. Trying to do the impossible hardly makes sense. But the counter-argument is also somewhat self-evident. Is "any obstacle" really circumvented? And if the state has few capacities,

should one totally exclude the possibility of developing them? These questions remain central in Russian policy debates.

It has been argued that the pettiness of Russia's foreign creditors in 1992 contributed in an important way to the failure of foreign trade reform policies. Instead of providing ample financial support, the creditors concentrated on trying to secure at least part of their receivables. Attempts to garner currency revenue were again high on the list of the government's agenda by mid-1992. The practical implications of this were unfavorable for mainline market-oriented reform. On the other hand, considerations of servicing foreign debt were hardly the only ones having a bearing on the policy outcomes. As emphasized above, maintaining the wedge between domestic and world market prices made complete foreign trade liberalization impossible.

July 1992 also brought the unification of exchange rates. Some 10 different exchange rates for the ruble still existed in early 1992 (Alexashenko, 1992; IMF, 1992b; Sutela, 1993). None of these exchange rates was generated by efficient or even well-functioning markets. After July the CBR only quoted one exchange rate, based on the Moscow Interbank Currency Exchange (MICEX). The original plan of pegging this exchange rate after floating the ruble for only one month had to be dropped. Instead of appreciating, the ruble depreciated. Nor could the ruble be made the only legal tender in the country. In fact, the legal scope of using other currencies in Russia widened, until their use in cash transactions was outlawed in early 1994. Finally, the ruble was not formally declared convertible, though this was largely a matter of convention.

As MICEX gained in importance, the market had to be developed. A larger share of currency revenue was duly channeled through the domestic currency market. Beginning on 1 July 1992, exporters were required to sell 30% of their currency revenue to the CBR currency reserve. Another 20% were to be sold to any buyer on the currency market. The good news for exporters was that sales to the CBR were no longer made at an artificially low special exchange rate, but rather at the market rate quoted by the CBR.

Taxation of foreign trade was also changed in summer 1992. Export taxes were adjusted, and for energy carriers they were increased. The average export tax after these rearrangements was approximately 20%. Barter was subject to higher taxes, and these were to be further increased. Instead of the 15% import tax planned earlier, most imports were subject to a tax of 5% in the second half of 1992. This rate was scheduled to be raised to an average of 10–15% at the beginning of 1993. Taxation was now to be calculated at the market exchange rate.

The introduction of import taxes naturally made imports more expensive. At the same time, Russia applied the value-added tax to imported goods that were previously exempt. The biggest potential influence on domestic costs, however, was the abolition of the previously low special exchange rate used in pricing centrally managed imports (such as grains, meat, medicines, baby foods, and machinery for light industries). This hidden subsidy was now, in principle, abolished by adopting the CBR market exchange rate for these transactions as well. The future of such subsidies was widely debated. It was finally decided that the system of commodity-specific currency coefficients – a cornerstone of the old foreign trade system and an important form of subsidy – should be maintained at least until 1996 (*Nezavisimaya Gazeta*, 9 October 1992). This was done not in the traditional way, but rather by establishing commodity-specific subsidies for centralized import.

Christiansen (1993, p. 12) emphasizes that the system of import subsidies was administered according to the traditions of central planning. The administration estimated the domestic needs of enterprises, sectors, and regions for centrally imported goods. Import decisions were made and goods distributed accordingly. On average, enterprises paid only 5–10% of the value of centralized imports in domestic currency. This was a major source of inefficiency and tended to boost import demand. Import subsidies, in essence, were equivalent with the continued use of a multiple exchange rate regime.

In 1992–1993, this decision was a major problem for reformers and the source of huge subsidies, amounting in 1992 perhaps to about 15% of the GNP (Easterly and Vieira da Cunha, 1993). In 1993 import subsidies were cut drastically, perhaps to less than a third of the previous level. In November 1993, when the government was temporarily free from parliamentary constraints, it was decided that import subsidies should be abolished on 1 January 1994. Subsidies on only a few small exceptions – baby food and medicines – would remain.

5.2.4 An overview of Russian foreign trade rules in 1992

No doubt the decree of 15 November 1991 on the liberalization of foreign economic activity was an important step. It abolished the need for specific foreign trade authorization. Six months later, however, licensing was reintroduced for a large share of Russian exports. New traders were judged to have neglected Russia's economic interests by selling commodities abroad that

were in short supply domestically, by setting prices too low, by competing too much with one another, and by neglecting to repatriate currency revenue.

In 1992 these steps backward were rationalized by the need for foreign trade coordination and structural policies (Aven *et al.*, 1992). Russian realities were far from any Far East Asian models that was sometimes cited in defending the policies. Corruption, smuggling, and circumventing of regulations abounded. This is to a degree a natural consequence of partial liberalization, but it is even more the product of failed stabilization. The continually depreciating exchange rate made capital flight inevitable. The soft budget constraints of enterprises further depressed the exchange rate, as huge industrial subsidies invaded the currency market in search of a safe asset.

Overall, it is clear that the Russian trade reform stalled in mid-1992. In this respect, we can mark the end of the first phase of Russian foreign trade reforms. At the same time, however, a uniform exchange rate regime was introduced and maintained, but it did not include import subsidies.

Since early 1992, quantitative restrictions have covered at least 70% of all Russian exports. Though certificates carrying the right to licenses can be traded, such transactions seem to have been exceptions. An even bigger obstacle to freeing exports were the duties applied to the export of about 400 products, and especially that their levels seemed to be totally arbitrary. This necessitated further changes in regulations, which only added to the uncertainty. Also, many enterprises, regions, and industrial branches have received from the government exemptions from the payment of export duties. Such exemptions were granted on 61 occasions during the period when the most reforms occurred, the first half of 1992 (Aven and Glaziev, 1992). Altogether, more than half of the total value of all exports subject to duties may have been exempted.

The authorities' inability to monitor payments was another problem contributing to capital flight. There was no system for comparing customs and banking records. Even relatively simple measures to monitor real export flows were not implemented. A currency control authority was established, but it was not given personnel or offices. It was later abolished, and a new authority was established at the end of September 1992 (*Delovoy Mir*, 20 October 1992).

In addition, the customs or border controls were not effective. In the first half of 1992, the customs system may have covered scarcely more than half of Russia's total volume of foreign trade. Improving controls of foreign trade hardly had high priority in the authorities' policies. Commercial

banks did not report their foreign exchange positions to the CBR on a regular basis. With strong expectations for inflation and exchange rate depreciation, repatriating currency revenue was not rational. Moreover, the crisis of the Vneshekonombank contributed to the loss of confidence in both the domestic banking system and the ability or even willingness of the authorities to defend deposits held by Russian banks. A simple partial solution to overcoming the lack of confidence would have been to allow foreign banks full operational rights in Russia. This measure has been fiercely resisted by Russian banks wary of competition.

5.2.5 Why was there no export surge?

So far the Russian export performance has clearly deviated from that of many developing countries undergoing trade liberalization. In other countries, a large variety of products, often the most astonishing goods, have found their way into exports after liberalization and sufficient devaluation. Such exports have yet to emerge in Russia, with the obvious exceptions of aluminum and certain other raw materials. There are several explanations for this anomaly.

First, the threat of bankruptcies has not become credible, and there has been little need for either depleting inventories or longer-term export strategies. Second, the traditional problems of product quality remain. Third, the export infrastructure from communications through expertise in servicing is often lacking. Fourth, the possibility that a major part of potential Russian exporters actually are value subtractors (McKinnon, 1991) must be taken seriously. In such cases, no devaluation would be sufficient to make exports competitive. Fifth, actual trade and domestic liberalization has not been sufficient to generate a supply response. Existing trade liberalization is too recent and uncertainty too great for export behavior to have changed. Finally, high taxation and problems with transport capacity constrain traditional Russian energy exports.

5.3 Russian Foreign Trade Rules in 1993

5.3.1 Maintaining the single exchange rate

The adoption of the single exchange rate principle can be regarded as a major achievement of the Yeltsin–Gaidar administration in 1992. This principle has been maintained in the face of continued criticisms fueled by the collapse of

the nominal ruble rate of exchange. Two important aspects help to explain why this has been possible.

First, the low external value of the ruble has not helped foreign investors to take over Russian assets. Foreign investment in Russia has remained meager. In the important test cases of the energy sector, the government has strongly protected the position of Russian investors – mainly the military-industrial sector – so that potential outsiders felt they were discriminated against. Second, the reliance on centralized imports has actually implied the maintenance of a multiple rate of exchange system for imports. The authorities have neutralized the impact of the nominally collapsing currency on import costs by using foreign financing to buy the centralized imports while reselling these goods to domestic users at a price with a high commission.

Abolishing import subsidies in 1993 has been the main foreign trade reform step since the momentum for trade reform stalled in mid-1992. The real appreciation of the ruble in the second half of 1993 and the positive real interest rates achieved in November 1993 also tended to check capital flight. Indeed, the Central Bank of Russia has estimated that, during the latter half of 1993, there may have been illegal capital inflow of about \$5–7 billion (Alexashenko, *Rossiiskaya Gazeta*, 27 April 1994).

5.3.2 Continued export licensing

In January 1993 there was a major change in export licensing and quotas. In principle, exports to both the former USSR and outside it are now managed in the same way. This is a major step toward simplicity and transparency. Contrary to earlier intentions of liberalizing export, 17 groups of goods remain subject to export quotas. As before, the commodities include most Russian exports, though the list of items subject to quota was pruned during the year.[3] In principle, the quotas were determined by the Ministry of Economy, but in practice there may have been some 10 ministries handing out quotas (Sokolov, *Rossiiskaya Gazeta*, 29 April 1993). Not surprisingly, Vice President Rutskoy made allegations of corruption in foreign trade a central part of his political campaign in 1993.

Furthermore, in January 1993 a partial recentralization of exports took place. The government re-engaged itself directly in export operations to finance centralized imports and debt servicing. The share of centralized exports was expected to be one-quarter of all exports, apart from energy. For crude oil and natural gas, centralized exports were expected to be at least one-half of all exports. Imports, on the other hand, remained almost totally

liberalized. Tariffs were readjusted, and this clearly tended to increase variability in the tax structure. Frequent tariff adjustments created uncertainty in the economy. Since January 1993, Russian imports have also been subject to VAT. This may have depressed import levels further.

5.3.3 A drift toward populism?

As the parliamentary elections of December 1993 drew closer, the government took drastic steps to protect Russian banks against foreign competition. It also announced that the use of foreign currency in cash transactions would be banned on 1 January 1994. In addition, the government raised the import tax on cars and tobacco up to 35–55% and 100%, respectively. Some of the leading reformist ministers also promised to impose prohibitive import taxes on imported food and clothing as well. All of these measures were expected to attract popular support among key political constituencies.

On the other hand, the government felt strong enough to attack the numerous foreign trade privileges of various regions (Sutela, 1994). This line, however, was not followed consistently even during the elections. The Sakha republic, whose leader had supported the government in October, had its privileges reconfirmed.

The government also took steps to control capital flight. In August, it was decided that actions should be taken to curtail the number of enterprises dealing with the export of licensed goods. If implemented, such a decision should simplify export controls. In mid-October the Central Bank instituted new regulations on export-related payments. They came into effect on 1 January 1994 for licensed exports, and on 1 March 1994 for other commodities. These regulations provide a three-stage control system and involve commercial banks, customs officials, and the Central Bank. The main responsibility rests with the commercial banks servicing the exporter.

The conduct of foreign trade and payments remained a highly contested political issue in 1993. There were repeated calls for increased state intervention. Within the government, lines seemed to be drawn between the few liberal ministers and the increasingly ardent supporters of industrial subsidies and intervention. The issues of foreign trade corruption and "selling of the Fatherland" figured prominently in political debates. In practical policies, the drift was clearly toward increasing state intervention. This, however, changed in October 1993. For a short period, the government was relatively free to pursue policies of its own liking. The result is visible in the decisions just cited.

In November 1993 the government announced the foreign trade rules intended to be in force beginning in January 1994. The abolition of import subsidies, discussed above, is part of this program, which also includes pruning quantitative export restrictions and increasing import duties. For practical reasons the raising of import duties was postponed until March 1994; import duties were to be raised on items such as furniture, clothing, textiles, and some foodstuffs. New duties were also introduced on some previously duty-free items, and the excise taxes on imported luxury goods were raised.

Russia formally applied for membership in GATT in June 1993. It was widely interpreted that the raising of import duties reflected not only growing pressure for protectionism, but also tactical considerations: "Companies should expect the Russian government to raise import duties (despite its protestations to the contrary) as high as possible before accession to GATT, which is widely predicted to occur in the next 12–15 months" (*Business Eastern Europe*, 24 January 1994). This action was confirmed during the months that followed.

5.4 1994

5.4.1 The plans

After a period of policy uncertainty, the refashioned Chernomyrdin government of 1994 vowed to continue the policies actually presided over by the 1993 Chernomyrdin government. In its policy statement of 8 April 1994 (Statement, 1994), the government promised to continue the policy of a single, market-based exchange rate. It also stated that the CBR would refrain from "artificial" attempts at *de facto* pegging the exchange rate. The government also promised to restrict the commodities subject to export quotas to crude oil, diesel fuel, natural gas, electric energy, nickel, copper, and aluminum beginning in May 1994. This implied the liberalization of exports of cellulose, soya beans, fish, durum, and soft wheat.[4] All export quotas were scheduled to be eliminated by the end of 1994.[5] Export duties were also scheduled to be lowered. The centralized export scheme introduced in 1993 would be eliminated at the beginning of 1995. The government promised to limit centralized imports to a few commodities. None of the import subsidies eliminated as of 1 January 1994 would be reintroduced. Import duties would be nonprotectionist, and their general level would be moderate, with a clear declining trend.

Many of the promises made in early 1994 are similar to the ones broken before. Also, they contrast somewhat with recent action, as outlined above. Therefore, uncertainty concerning their implementation remains. While real appreciation of the ruble was almost stopped in 1994, there is also uncertainty concerning competitiveness over the medium term.

An approximate doubling of import duty levels was planned to take place on 15 March 1994. The weighted average import duty (in 1994 of about 8%) was scheduled to increase to between 12% and 14%.[6] At the same time the duty structure was to become more diversified than before, and some final products would be given relatively high effective protection – another symptom of growing protectionism. This motive has openly been admitted (MVES as cited in *Segodnya*, 20 April 1994). At the same time, new duties may be seen as negotiation chips to be given away over the medium term.

Finally, the government decided on 14 April (*Rossiiskie Vesti*, 16 April 1994) to postpone the introduction of increased duties until 1 July 1994. Some of the proposed changes may be reconsidered (Shokhin in *Segodnya*, 14 April 1994). Again, none of these statements increased the traders' trust in the stability of trade rules.

Overall, a thorough overhaul of the Russian foreign trade approach is possibly taking place. If in 1992–1993 the accent was on constraining exports while pursuing import liberalization and even subsidies, currently the emphasis is on import restrictions and export liberalization. It is too early to speculate whether this shift proves to be permanent. Promises about export liberalization have been broken so often that their credibility has been seriously impaired. The relative stabilization of the Russian economy since late 1993, however, should open the way for more stable and market-economy-compatible rules of the game.

In late May 1994 President Yeltsin issued six decrees to speed up economic reform. One decree (*Rossiiskaya Gazeta*, 24 May 1994) abolished all export quotas and licenses except those pertaining to international obligations of the Russian state. If implemented, this decree finally signals the liberalization of most of Russia's exports, even though export taxes are to remain high. Not surprisingly, this decree is characterized as the biggest step toward trade liberalization since November 1991 (*Kommersant Daily*, 26 May 1994).

5.4.2 Russian-style foreign trade in early 1994

The discussion has emphasized the uncertainty in the rules for Russian foreign trade since late 1991. The general trend toward liberalization has not

been reversed, but the process has been marked by starts and stops. Seldom has policy uncertainty been greater than in early 1994, and it continues, though recent announcements have been most encouraging. From the point of view of enterprises such uncertainty amounts to an added cost of starting and continuing foreign trade activities. Some examples will highlight the situation.

In early 1994, 70% of Russian imports and 75% of exports by value were subject to duties. Duties are subject to frequent revision, their diversity tends to increase, and the general level of import duties is rising. At the same time, the list of export items subjected to quantitative restrictions has been shortened. Promises concerning export liberalization, however, have repeatedly been broken. Announced dates of duty revision have recently been reshifted forward. It is symptomatic of the situation that the government now contemplates promising that such revisions would be announced at least 90 days beforehand to give traders some time to adjust (*Rossiiskie Vesti*, 16 April 1994).

Traders of items subject to duties thus face uncertainty both on the level of duties and on the meaning of announcements of policy change. When uncertainty is sufficiently great, traders can only protect themselves by going underground – that is, smuggling, underreporting, and so on.

In early 1994 export licenses and quotas still covered the main share of Russian exports. The granting of licenses is characterized as a composite procedure that includes both administrative and economic allocations. In practice, administrative criteria clearly predominate. For 1994 quotas of only 5,000 tons of copper and 10,000 tons of nickel were reportedly auctioned (*Reuters*, 25 March 1994).

An enterprise interested in a quota can use the normal administrative methods of influence, such as the old boys network and bribery. If that fails or proves too costly, smuggling is an alternative. For a potential new exporter, one possibility might be applying to regional authorities to see if they are willing to try to circumvent federal jurisdiction.

Other sources of continuing uncertainty include the reorganization of foreign trade activities, as in armaments trade. The Central Bank of Russia has also proposed a new set of regulations on currency controls. According to reports these regulations contain criminal punishment for "foreign exchange offences" (*Reuters*, 20 April 1994).

Words like *chaotic* and *collapse* are often used when discussing Russian foreign trade. Still, Russian enterprises have been able to adjust. This is evident from the discussion above on actual trade volumes. Two theories have been offered to explain the adjustment of Russian enterprises. One is

that those badly hit are forced to adjust. The other is that those in the best position to adjust will be able to do so. Clarke *et al.* (1994), who adhere to the second viewpoint, describe the export adjustment strategies of one enterprise which has been very successful in obtaining export licenses. They conclude: "Science knows its proper limits – suffice it to say that the director has been spectacularly successful in exercising the traditional lobbying skills of the Soviet director."

Exercising the traditional skills of a Soviet manager is not the only way of adjusting for survival. There are case studies of enterprises adopting through export expansion, though "this is only an option for a few" (Boeva and Dolgopiatova, 1994, p. 118). The problems cited include unprofitability of exports, low competitiveness due to existing technology, and the lack of market contacts and expertise.

Kiselyov (1993) cites an empirical survey that tends to confirm the conclusions reached above. He emphasizes the importance of limited market access to OECD markets, but also that some exporters, especially in metal exports, have been very successful in aggressive penetration. Other factors stressed in the study are the relatively high start-up costs (especially for traditional home-market producers), the uncertainties of Russian infrastructure, and the costs involved in the currency surrender requirements.

5.5 Conclusions

As in most large-scale transformations, the glass of Russian foreign trade reform is both half-full and half-empty. From the latter perspective the path chosen in November 1991 led to the collapse of trade volumes, to a serious depreciation of the ruble, and to partial reinstitution of foreign trade controls. From the former perspective events have been shaped by political pressures, but there is little chance that a return to the old days of state monopoly of foreign trade might be seriously contemplated.

In 1994, the continuing deterioration of Russian central powers remained. In the midst of rent-seeking, inside dealing, and corruption, the government has been playing with plans for industrial policies, centrally directed privatization, and – indeed – foreign trade controls. Such intentions have had but little actual relevance.

If recent policy statements are to be believed, the trend toward trade liberalization is to continue. Though the picture is far from clear, it is obvious that the authorities have by now learned to respect the boundaries of feasibility better than before. Still, outright liberalism – abandoning all attempts

at central control – will not be part of the solution. Rather, the continuing efforts to muddle through seem to be most probable in the immediate future. As 1993 has shown, much depends on the macroeconomic environment. It is here that the crucial battles will be fought.

Notes

[1] Aven (1994, p. 82) argues that the drop in imports was "the main reason for the decline of production in Russia in 1992," but I am not aware of any thorough study on the reasons for Russia's production decline between 1991 and 1994.

[2] For a full listing of changes in the exchange and trade system in 1991 see IMF (1992a), Annex III.

[3] Between January and November 1993, the following items were removed from the quota list: ammonia, synthetic rubber, potash fertilizers, ammonium sulfate, unrectified methanol, calcium phosphates, wood, and certain types of nonferrous metals.

[4] If the list in the policy statement is comprehensive, among the liberalized commodities would also be some oil products, certain hydrocarbons, hydrocarbon raw materials, some nonferrous metals, ethyl alcohol, caviar, unprocessed lumber, rail sleepers, and other somewhat exotic items. It is improbable that such items as weapons, nuclear materials, and narcotics will be liberalized. They have been subject to licenses, but not to quotas.

[5] This tight schedule was one of the surprises of the statement, as only a month earlier Russia had circulated information that export licensing and quotas were to be phased out by 1 January 1996.

[6] This is based on early information. The 8 April statement declares that weighted average import duties will not exceed 15% in 1994.

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Chapter 6

The State of the Domestic Market in Russia and its Impact on Exporting Activities

Kamilla Lányi

6.1 Programs of Transition and the Commodity Markets

The programs of transition in the economies of former socialist countries consist of the following parts: stabilization, price liberalization, privatization, and restructuring (Blanchard *et al.*, 1991). Usually no part of the programs specifies any directions for the reformation of the internal or commodity markets of the particular country in transition. Moreover, while the reforms are supposed to further the transition to a market economy, no programs for establishing commodity markets exist for the countries that were previously dominated by strict central planning and central distribution of goods and services. In these economies wholesale trading companies for production supplies did not exist and market-type exchange was marginal. Yet, the national programs focused only on the establishment of the legal framework for commodity-market institutions (company law, deregulation of trade, law on competition, law on accounting and auditing, bankruptcy law), while nothing was done for actual market building.

In this chapter the term commodity refers to all kinds of marketable goods: those destined for production supplies as well as for consumption.

Furthermore, the standard stabilization package at the center of the programs for transition (the details of which are not discussed here) does not contain a single element that is aimed at maintaining or increasing the exports of the country in question, not even of countries with substantial foreign debts. Import liberalization, the rate of exchange, and the exchange rate policy of the countries are not used to further the increase of exports, but rather to enable the structure of domestic prices to be in accordance with world market prices as much as possible and to support the price level attained after liberalization.

Thus the theories and programs for stabilization are left to the respective governments to determine the measures needed to build up the internal market of goods and services and to maintain or increase the exports of their country. The programs are neutral as to the volume and type of exports and organization and operation of the market that may be established in the course of the implementation of the programs.

6.2 The Fate of Existing Markets

By the late 1980s Poland and Hungary had already established market distribution systems and a somewhat diversified purchasing systems of farm produce. Wholesale trading firms were operating both for consumer goods and for production inputs. Several types of retail networks were also in use. The immediate result of the economic reform and stabilization in these two countries was the collapse of the wholesale distribution system and the system of purchasing farm produce. These channels of trade were usually owned by the state, had negligible working capital of their own, and were the first to be hit by credit restrictions and high interest rates. This was the part of the vertical chain that broke first, followed by the break in industry and agriculture and subsequently in retail trade (for more on the developments in Poland, see Lipton and Sachs, 1991; Pinto *et al.*, 1994).

The process in Hungary occurred at a somewhat slower pace than in Poland, but its effect is likely to prove more lasting. This is partly due to the fact that the so-called spontaneous privatization of trading companies and the establishment of new private ones could not take place until the new owners drew the capital necessary for the establishment and operation of new enterprises from the collapsing state companies. Consequently, for several years the eliminated channels of trade were only partly replaced. In Hungary, as well as in several other countries in the region, foreign companies and joint

ventures (in most cases the latter were established with negligible capital) took over some of the missing distributional roles, naturally by substituting imported goods for many domestic products. From the foreign investors' point of view this was inevitably needed, particularly when a retail chain was bought by them (Nestorovic, 1993). As a result, reaching retailers has become much more difficult for domestic producers, who could not afford to create new marketing organizations, than for importers.

The upheavals of the market and the collapse of the network of domestic purchasers and distributors have often turned out to be lethal for those Hungarian companies that produced exports and successfully switched to Western markets after the collapse of the CMEA. Despite the breakdown of many internal contacts of cooperation (the export incentives and trade promotion had shrunk to a bare minimum), the producing companies tried to stay afloat by boosting exports to the West. For example, between 1989 and 1992, while the volume of the Hungarian GDP fell by 19–21%, the volume of foreign trade (exports and imports) fell by only 8%, and the value of exports reached $10.7 billion in 1992, the highest ever. In the face of meager domestic financing, Hungarian firms were able to accomplish this export only with the use of services of foreign intermediating firms. Companies representing entire industrial branches began processing under contracts for foreign companies. Subcontract processing for exports, as one would expect, showed low profitability. Moreover, in these years the National Bank of Hungary continued to pursue a real appreciating exchange rate policy that eroded the otherwise meager profitability of exports.

Thus, the conditions dominating the domestic market have not permitted revenues from domestic sales to support the exporting activities of Hungarian firms. Since the branches of the economy producing exports could in no way realize their costs in either the domestic or the foreign market and their resources for development and possible restructuring had been taken by the budget in the 1980s, they have been declaring bankruptcy one after the other since spring 1992. Many have already been liquidated, and numerous others are awaiting the same fate. The year 1993 saw not only a dramatic lapse in the exports of companies operating with domestic capital (25–28% at the beginning of the year and, as a result of various government measures, 17% for the whole of 1993), but also a noticeable decline of exports produced in joint ventures and in companies with foreign ownership (for details on the causes of the fall of exports and the role that the neglect of the domestic market in Hungary played in it, see Köves *et al.*, 1993).

6.3 The Distribution and Barter System Preceding the Market Economy in Russia

Market relations – at least until the mid-1980s – played only a marginal role in the economy of Russia during the Soviet era. The market in this sense refers to that place (institution) where sellers declaring their supplies and buyers declaring their demands meet and, usually as a result of a bargain between the two parties, settle on a price. As compared to a market in this sense, a system of strict central distribution was dominant in the former Soviet Union. Producers and users, sellers and buyers did not need to know each other; they were isolated from the external market to such a degree that, until the late 1980s, products for exports did not even figure in the plans of the producers and imported products could only be ordered by official authorities. When some producers were assigned foreign trade rights in 1986, these companies received far more extensive trading and financial rights abroad (for instance, in the countries of the CMEA) than they had at home.

The 1970s were the years of the rapid development and differentiation of production, as well as consumption, for the Soviet economy. The paradoxical results of this development were the accumulation of chronic shortages of some goods and stockpiles of other unmarketable goods. To prevent any potential market reform, the omnipotent State Committee for Material-Technological Provisions (GOSSNAB) and the newly developed agro-industrial complexes (APK), which were the size of whole counties, become the protagonists of commodity distribution. Enterprises were organized into unions, in many cases their sales and purchasing departments were closed, and even their independent accounting activity was discontinued.

The highly differentiated producer and consumer demands inevitably called into being the so-called second or shadow economy (Koriagina, 1990). However, semi-legal or illegal trade (especially private trade) did not become extensive in this shadow economy. Instead, what became quite common was the secondary and tertiary distribution of the state-distributed goods, not only for private profit but also for mutual favors among enterprises, kolkhozes, universities, and so on based on a barter system. In other words, the privatization of distribution was established (Lányi, 1991). The government of the early 1980s completely criminalized and severely punished any kind of such practices. When this pressure lessened, the practice of illegal distribution was revived, largely in the form of organized crime.

The leaders of the FSU announced market reforms as early as 1989. Naturally, they were to take place gradually as market-type institutions, liberalized activities, and the new private sector progressively strengthened. These institutions were expected to enable an increase in liberalizing measures. Some experts maintained that gradual liberalization could be impeded in all ways and that the development of the market could only be induced by a complete legalization of the shadow economy (Borozdin, 1990).

In several regions and branches of the economy the development of the market could not catch up and compete with the illegal economy that operated already on a mass scale (Kozlov, 1990; Loïma, 1993). It was not earlier than 1988 that the State Committee for Material-Technological Provisions was ordered by a government decree to support direct contracting between buying and supplying firms and to provide clients with the list of eligible suppliers and users upon request. The "Radical Reform" of 1989 associated with Abalkin included plans to establish wholesale trade and a financial market by the mid-1990s; however, details on the program were lacking (Abalkin, 1990). It is even more curious that the famous, thorough, and detailed study, produced jointly by the IMF, OECD, and other international organizations, devoted no more than a short chapter to the system of wholesale distribution (IMF *et al.*, 1991). While the observations quite correct, they seem to have been almost completely forgotten in the recommendations for reform.

6.4 Parallels and Differences in the Operation of the Internal Market and Foreign Trade Between Russia and Other Reforming Countries

Substantial literature already exists on the basic similarities between Russia and other countries undergoing market reform. These similarities include general recession (see Blejer *et al.*, 1993; Bhaduri *et al.*, 1993; Schmieding, 1993); financial crisis (Dubinin, 1992); and the marked volatility of macroeconomic data in each country. There have been several studies on the behavior of enterprises in Russia. However, only those studies are valuable that are based on visits by the authors to at least several enterprises and that were initiated without the expressed purpose of proving all state-owned companies to be "rent-seeking monopolists." According to benevolent analyses, the behavior of Polish managers (Pinto *et al.*, 1994) is rather similar

to that of their Russian counterparts (Ickes and Ryterman, 1993); both attempt to preserve production capacities and relatively qualified labor as long as it is possible. Although the Russian companies probably initiate a higher number of smaller investments than the Poles and the Hungarians, the management of state-owned companies of all three countries tend to be cautious in initiating large-scale investments or restructuring. In Hungary this is true of private enterprises as well (Laki, 1992, 1993).

Some of the phenomena, such as the increasing role of foreign intermediaries and contractual processing, described above in connection with Poland and Hungary, seem to be taking place in Russia, too.

Furthermore, the interest of foreign capital and joint ventures subside when privileges are diminished and they are required to operate under the same circumstances as domestic companies (Gavrilov, 1994).

The relative failure of commodity exchanges is striking, particularly in Russia, where they had managed to attract a large part of the available commodities in the early 1920s, the NEP period, and where they had played a crucial role in evening out regional price differences (Kriukova, 1991; Zolotodinov *et al.*, 1991).

Two foreign trade-related differences between early reformers in Eastern Europe and Russia must be singled out. First, in the countries that began reforms early the entrepreneurs newly engaged in trade (and often in foreign trade as well) emerged from among the managers of previously state-owned companies and the successful actors of the second economy. These people established contacts primarily with participants in the market and, to a lesser extent, with the state administration. According to all indications, in Russia those involved in trade either were or still are officials who can trade best with state administrators even if they manage domestic or foreign trade companies. They seem to be working at their best when they are performing state assignments (Kazakov, 1993; Roscomagentstvo, 1993). The companies of a given ministry – for example, those of the Ministry of International Economic Relations – do not become integrated into the domestic trade system, and the applicable legal regulations enable them to create a foreign distribution network before creating the domestic one (Belikova, 1994). The separation of the activities into the domestic and the foreign markets is striking in programs providing incentives for the foreign-servicing network of machines and engineering products. This separation clearly survives in the partial retraction of the earlier deregulation of foreign trade activities. For example, the policy of "rationalization" intends to prohibit some forms of mediation in exports and re-exportation of machines and engineering products (Program, 1993).

Second, Russia is significantly different from the countries of earlier reforms in the dominance of the state as buyer and seller. The system of "state orders" and "purchases for state needs" has been advancing over the past couple of years, primarily because influential actors have managed to bring previously liberalized or deregulated activities under their control. The potentially grave problems in the foreign trade of raw materials prompt policy makers to select those entitled to trade and also to set up a stricter allocation of quotas (Provisions, 1993; Decree, 1994).

6.5 Corporate Structure and the Market in Russia: The Potential Direction of Development

The developments that took place in the 1970s may provide an explanation for Russia's reluctance to turn its companies into the basic actors in the market. The disassembling of large unions was fraught with problems. According to the literature, not only individual companies, but often even the unions failed to pursue successful independent market activity. The ministries began to organize companies into holdings that centered on trade (for example, imports): the company shares have been given over to the new foreign trade company formed from the old foreign-trade union or from the relevant divisions of the ministry of the given economic branch or both (Blokhina, 1992). Theoretically, these organizations could succeed in gradually achieving independence from direct control by the authorities.

There is, however, another plan still in the planning stage (but, in principle, already accepted at high levels in the government). According to this plan the sole actor in the market would be a type of organization closely bound to the state – in a sense, the state itself. The rescue, conversion, and modernization of the ailing, partly developed high-tech industrial branches and the military–industrial complex are at stake. The plan attempts to increase the export capability of these industries partly in relation to exports from the extraction branches and partly at their expense. The supervising authorities are attempting to organize the respective companies into a specific form – into so-called financial-industrial corporations -- and are trying to incorporate into them the relevant organizations of research and development, the appropriate administrative divisions, the relevant foreign-trade union, and the bank that finances these activities. The central apparatus of these giant corporations would control processes of development, production,

internal cooperation, external sale, and financing in a vertical structure. The capital for the financial-industrial corporations would be provided by foreign sources (investments by and cooperation with multinationals); by the technical development fund to which the other unions, concerns, associations, and authorities contribute; and by central development programs (state purchases). In the future, the money that had been identified to be invested in smaller groups of companies for the maintenance of simple production should be concentrated in these corporations. Imports that threaten the domestic production should be restricted by regulatory measures, and the activity of corporations should be supported by specific export incentives (Glaziev, 1993; Program, 1993; Presniakov and Sokolov, 1993; Export promotion, 1993).

Two patterns can be identified in these plans. One is the process of imitating multinational (global) companies, especially with respect to the scope of authority and of strategic planning of the central apparatus. The obvious difference is that these Russian corporations, at least for the time being, would operate not at a multinational or global level but in the domestic economy, in which they would form a sort of island. The second pattern is following the example of large Japanese companies. In Russia, however, there is no sign of either organizing the network of subcontractors and trade or sales competition, first at home, then abroad. It is the state or the state budget that is recognized as the main buyer and financer of the new Russian corporations that, at the same time, are envisaged to be independent and profitable.

There is no reason why such a system could not be called a market. Perhaps economists will have to modify their definition of the market. Ultimately, the fundamental question is whether such corporations will be able to create some sort of exchange relation with something other than the state and its authorities.

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Part III

Currency Markets, Exchange Rate Regimes, and Trade Policy

Chapter 7

Development of Foreign Exchange Market in Russia: Main Results and Prospects

Vsevolod Bulantsev

In Russia, financial markets and exchange rate arrangements have started on the long path to transformation from the state of a centrally planned environment to a market-based one. The nascent financial markets and exchange rate arrangements are already playing a crucial role in providing instruments for pursuing monetary and fiscal policy in Russia.

Historically, the development of the Russian foreign exchange market coincides with the start of economic reforms. The first two serious steps were made in early 1992:

- An official market rate of the Bank of Russia was put into effect, and the practice of multiplicity of rates was abolished in the mid-1992.
- Tenders at the Moscow Interbank Currency Exchange (MICEX) have become an institutional base for setting exchange rates.

7.1 Exchange Rate Arrangements

Fixed and flexible exchange rates are relative terms, and the degree of exchange rate flexibility is considered to be an important policy instrument. Exchange rate regimes are usually one of the following: fixed rate, pegged rate, managed floating rate, or freely floating rate.

In general, within the framework of macroeconomic theory a somewhat less flexible exchange rate is better fitted to economic systems that are involved in international trade. This lesson has been drawn from the experiences of the well-established market environment found in advanced capitalist countries.

The dynamics of the exchange rate regimes and arrangements in the Soviet Union and Russia can be divided into the four stages.

Stage 1 (until 1987): Under the conditions of centralization of financial resources (including export proceeds) and distribution of import shipments by the use of *price equalization*, the exchange rate was of minor importance in the control of macroeconomic processes in the USSR. It was a standard unit of account and had no essential effect on the activity of the enterprises.

Stage 2 (1987–1991): The programs of economic reforms were mostly concerned with the control of foreign trade. In 1987 the differentiated foreign currency coefficients for exportation and importation and for trade groups and enterprises were established, and the standards of forming currency funds were put into effect. These measures, in effect, gave rise to a multiplicity of exchange rates. The auctions at Vneshekonombank began in late 1989. The unified commercial ruble rate was enforced starting in late 1990, but the differentiated rates for centralized import were maintained.

During the Soviet era, the black market served as the best indicator of the state of the foreign exchange market and the exchange rate. Between 1960 and 1989, the cash exchange rate in the black market fluctuated between R 3 and R 5.5 per $1. The difference between black and official rates was partly reflecting the risk premium for the possibility of criminal punishment for trading in foreign currencies. Fluctuations in the black exchange rate were strongly dependent on the following factors:

- Shortages of consumer goods in the domestic market.
- Monetary policy.
- Export earnings.
- Liberalization of humanitarian relations.

In 1961, following the monetary reform, the Soviet economy experienced a compression of the money supply, the subsequent fall of the inflation rate on the black market of consumer goods, and the fall of the exchange rate of the dollar from about R 4 to R 2. In the mid-1970s the USSR benefited from an unexpected large amount of oil export earnings and the exchange rate of the dollar fell from R 5.5 in 1970 to R 3.5. In addition, a new passenger

car produced by the Volzhskii automobile plant was now available to ease shortages in the usually undersupplied consumer goods market. The accumulated *hot* money of the rich segment of the population was reoriented for such an investment. In the late 1970s and the early 1980s, the USSR began liberalizing its humanitarian relations with other countries. The waves of Jewish emigration, starting in 1979, and the development of private tourism stimulated the demand for hard currency, and the exchange rate grew to R 4.5 in 1985 and to R 5.5 in 1988.

In 1991 the liberalization of humanitarian relations, the pressures of *hot* money, and shortages of consumer goods caused the exchange rate of the dollar to become overvalued (in other words, the ruble depreciated considerably). In 1991 the 1% growth in the consumer price index (CPI) led to a 2.35% rise in the ruble/dollar nominal exchange rate (or depreciation of the ruble).

Stage 3 (January–June 1992): The next step of the exchange rate policy was taken when the USSR disintegrated. In January 1992, the official market rate of the Central Bank of Russia (CBR) was established and prices were liberalized. In addition, the special commercial rate set up by the CBR for selling and buying a part of the currency earnings for (and by) the Republican Foreign Exchange Reserves was introduced; the conversion rate of Russian citizens' incomes to foreign currency for the purpose of taxation was also introduced. Both were in effect until June 1992. The CBR established the official unified rate based on the results of tenders at the MICEX on 1 June 1992.

Stage 4 (since mid-1992): In mid-1992 the exchange rate began to be determined by market forces (namely, by demand and supply). Since then the Central Bank of Russia has taken measures to stabilize the exchange rate and to smooth the fluctuations. Beginning in 1994 the CBR has managed to reduce inflation and to limit fluctuations in the exchange rate.

7.2 Exchange Rate Policy Since Mid-1992

Several changes are clearly evident in the exchange rate dynamics in 1992 and 1993. After half a year of stable appreciation in 1992 (by 39%), the exchange rate started to depreciate in 1992. In general, the nominal exchange rate of the ruble depreciated (the ruble/dollar rate rose) by 202.9% in 1992 and by 223.9% for the first five months of 1993. The main indicators of

tenders of the MICEX in the period from June 1992 to May 1993 (except for December 1992) testify to the persistent excess demand for foreign currencies. Over this period the nominal exchange rate of the ruble depreciated sevenfold, and the excess demand for dollars amounted to $812 million. In such a situation the main goal of the exchange rate policy was to reduce the huge excess demand. In 1992 and in early 1993, there was a strong interdependence between the rise of M2 (monetary expansion) and the depreciation of the exchange rate. The 1% increase of M2 provoked a 0.34% increase in the ruble/dollar exchange rate (based on 17 observations between January 1992 and May 1993). The expansionary monetary policy of this period and underdeveloped exchange control legislation triggered the rapid growth of the ruble/dollar nominal exchange rate.

Since the second half of 1993, the stabilization of exchange rate has been favorably affected by the following measures initiated by the CBR:

- The establishment of limits on open foreign currency position, preventing the delay of binding sales of currency by commercial banks.
- The change in the rules on how export revenues must be sold at bank currency exchanges.
- The reduction of the volume of crediting and the increase of the refinancing rate of the Central Bank of Russia by stages that make credits less excessive and reduce the possibilities of commercial banks speculating on the interbank currency exchanges.
- The introduction of daily tenders that reduce the demand for hard currency.

In addition, both positive trade balance and receipts from international organizations have provided support for the stabilization of the exchange rate.

The intervention policy of the CBR has undergone essential changes. The *active* intervention policy, intended to support the exchange rate within certain limits for a somewhat appreciable length of time, has been replaced with the *passive* policy to protect the national exchange rate from speculations that cause volatile fluctuations. The Central Bank of Russia intervened in the exchange markets during the second half of 1993. This activity was enhanced by a relatively stable exchange rate and by the increasing possibilities of the CBR to affect supply and demand (the CBR managed to buy $1 billion in summer 1993).

Following the exchange rate stabilization, the Central Bank of Russia has begun a policy of preventing excessive fluctuations of the exchange rate and smoothing demand by using interventions. On 1 October 1993, the CBR

put into force official instructions, entitled "On the change of procedure for realization of goods (operations and services) for foreign currencies to citizens on the territory of the Russian Federation." This plan, which was put into effect on 1 January 1994, forbids transactions in foreign currency for trade and services within Russia.

7.3 Stable Exchange Rate and Fast Domestic Inflation

The exchange rate of the national currency is one of the most important tools supporting the transformation of economic system. On the one hand, its dynamics serves as an indicator of the course of reforms. On the other, the rate is an effective tool of economic policy. The present economic policy of the government, aiming to stop the fall of industrial production and to normalize the investment climate in Russia, requires a relatively stable economic situation. The exchange rate policy of the CBR is particularly important in this case. The exchange rate stabilization helped to maintain import prices, on the one hand, and gave a powerful psychological impetus to all the participants in the market, on the other.

Nevertheless, the stable exchange rate and the high inflation rates have led to the slump in the efficiency of Russian exports in 1993. The moderately tough credit policy under conditions of increasing cost inflation has caused a compression of the real money supply – essentially a deflationary shock. It has entailed a fall in the demand for industrial production, further cost inflation, a deepening of the payment crisis, and, hence, a fall of industrial production. The stable exchange rate has reduced the competitiveness of the Russian exports, and has led to a freezing of wholesale and producer prices on some domestic goods. The first indications of the stabilizing effect of the exchange rate on the domestic prices appeared in late 1993. However, due to the significant difference between inflation and changes in the exchange rate, a further fall in production can be expected.

7.3.1 Prices

The logic of monetarism and the economic policy of the former Gaidar–Fedorov government assumed that monetary expansion leads to acceleration of inflation. Events of the last year and a half support this assumption: on average, a 1% rise in M2 provoked an increase in the CPI by 0.6% four months later. The monetary expansion in July 1992, caused by the

consolidation of the nonpayments situation by additional credits, led to a jump in prices in October 1992 by 23%, and in November 1992 when the rate of increase of M2 slowed, as a result of the seasonal fall of demand for credits; the monthly average inflation rate was comparatively low by March 1993, only 21%. Thus far, the spring 1993 declaration of the government and the Central Bank of Russia to pursue a restrictive monetary policy has given little evidence that the rapid increase of prices will be reduced to 5–10% per month. The first sign of price stabilization came in November 1993. However, at that time the question arose: Why did the rate of inflation in November 1993 tangibly shrink while the rates of M2 did not fall considerably during the second and third quarters?

The price dynamics in 1993 was caused by many factors; monetary expansion was not the only determinant. In the first half of the year, the demand component, rather than the cost increase, was the dominant factor stimulating inflation in 1993; in 1992 the latter was more dominant. But, fluctuations in the money supply were having less effect on price trends: in the beginning of 1993 the rates of inflation exceeded the rates of increase of the money supply by 4 points, in the fall this gap expanded to 10 points, and by the end of 1993 and early 1994 the elasticity of the CPI to M2 was gradually dropping. Along with it, the real money supply was shrinking. According to expert estimations, the real money supply fell by 15 points from January to November 1993. Beginning in July, inflation was increasingly determined by the cost increase resulting from the price liberalization of fuels (oil, coal, and gas) and the rise of transport tariffs. The widespread overall insolvency of enterprises, which started growing in summer 1993, slackened the rates of overall wholesale prices. In July this index was 29%; in August, 27%; in September, 23%; and in October and in November, 19%. Stock exchange prices were more elastic to insolvency of the enterprises and started sharply decelerating from 22% in August to 13% in November.

In general, the moderately restrictive policy under ever-increasing cost inflation led to the shrinkage of real money (deflation shock). As a consequence, the demand for industrial production fell, cost inflation was moderate in other stages of production, and further deepening of the payments crisis temporarily halted inflation.

7.3.2 Exchange rate and purchasing power parity

Purchasing power parity (PPP) is a theoretical basis for the assessment of the evolution of the exchange rate. In Russia the gap between PPP and the current nominal exchange rate has substantially been reduced in recent

years. The ratio was 21.5 in January 1992, 6.05 in January 1993, and 2.85 by December 1993 (*Table 7.1*).

In countries where price and exchange rate liberalizations have been carried out, including the East European countries, the gap is closing between the market exchange rate and the PPP rate. This process shows that, while the national currency needs to be substantially devalued at the outset of a reform program, the logic of stabilization necessitates that the national currency gradually becomes stronger in real terms.

The large gap between PPP and the actual exchange rate was economically expedient in Russia in 1992 and 1993. First, the relatively undervalued exchange rate was an important factor in encouraging the export of mainly nontraditional goods; second, this gap protected domestic production from external competition following the liberalization of foreign trade.

7.3.3 Prices and exchange rate

In the first half of 1993 the rate of depreciation of the national currency lagged behind the rate of inflation. However, Russian producers still found exporting profitable. In mid-June, the exchange rate stabilized, but the rates of inflation did not show any sign of decline. Consequently, after July, when fuel prices were liberalized, Russian exports, primarily raw materials and ferrous and nonferrous metals, experienced a continuous decline of profitability. In December 1992, as well as from January to June 1993, the wholesale price of oil (without transportation costs and commission for holding quota) was 20% of the world price, but by November it was already about 40%. In early December, the wholesale price of gasoline was already 75% of the wholesale price determined by the Rotterdam stock exchange, diesel fuel was at 70%. In contrast, domestic wholesale prices of natural gas were about 200 times lower than world prices in December 1992, but by July 1993 domestic prices were only 10 times lower.

Liberalized fuel prices increased the costs in ferrous and nonferrous metallurgy, and this restricted the demand for these products. The lack of competitiveness – caused by the high price of inputs and the stable exchange rate, economic recession in the West, and competition from China – made the export of these metals less profitable or even unprofitable. That is why in September there was an excess supply of ferrous and nonferrous metals in the Russian commodity exchanges; this had a tempering impact on the price dynamics in October. According to experts, the growth in inventories of the enterprises producing ferrous and nonferrous metal products was due to a lack of effective demand. These enterprises were obliged to lower their

Table 7.1. Nominal exchange rates (NER) and purchasing power parity (PPP) in Russia between 1991 and 1993.

Period	NER ruble/$	PPP ruble/$	NER/PPP
Jan. 1991	25.30	1.15	0.22
Feb. 1991	34.00	1.21	28.09
Mar. 1991	36.10	1.28	28.20
Apr. 1991	36.55	2.09	17.49
May 1991	38.05	2.15	17.69
Jun. 1991	40.71	2.16	18.84
Jul. 1991	52.35	2.17	24.12
Aug. 1991	51.97	2.18	23.83
Sep. 1991	55.17	2.19	25.19
Oct. 1991	62.16	2.26	27.50
Nov. 1991	106.14	2.46	43.15
Dec. 1991	159.36	2.75	57.95
Jan. 1992	204.32	9.50	21.51
Feb. 1992	176.76	13.08	13.44
Mar. 1992	152.77	16.89	9.04
Apr. 1992	152.78	20.54	7.44
May 1992	122.33	22.96	5.33
Jun. 1992	125.26	27.13	4.62
Jul. 1992	143.35	30.06	4.77
Aug. 1992	169.74	32.67	5.19
Sep. 1992	225.33	36.46	6.18
Oct. 1992	352.97	44.73	7.89
Nov. 1992	426.89	56.21	7.59
Dec. 1992	414.64	70.01	5.92
Jan. 1993	489.24	80.90	6.05
Feb. 1993	569.51	100.78	6.85
Mar. 1993	663.81	121.10	5.48
Apr. 1993	768.90	142.10	5.34
May 1993	928.25	165.10	5.62
Jun. 1993	1,080.13	191.50	5.64
Jul. 1993	1,024.50	228.80	4.43
Aug. 1993	985.80	274.50	3.59
Sep. 1993	1,072.60	329.50	3.25
Oct. 1993	1,187.60	347.80	3.41
Nov. 1993	1,194.40	400.00	2.98
Dec. 1993	1,240.20	434.00	2.85

prices in the period from October to December. Excess supplies gradually disappeared with the introduction of some new duties at the end of October that stimulated the demand for nonferrous metals and the export of these products.

Appreciation of the domestic currency in 1993 made imports increasingly attractive. In August retail prices of some imported food products were even reduced. The retail prices of tropical fruits were also reduced. In early October, the price of sugar was set at R 650,000 per ton by domestic producers, while imported sugar was set at R 310,000 per ton. These two figures served as the borders of the wholesale prices of sugar which actually stood at R 525,000–R 535,000 in October. By early December, the wholesale price fell to between R 480,000 and R 490,000 per ton.

7.3.4 Exchange rate and interest rate

The trends in the domestic prices and in the nominal exchange rate did not always coincide in 1993. In the first half of the year the exchange rate depreciated faster than the inflation rate. The relative purchasing power of the dollar increased, and this made holdings of hard currency more profitable. However, the exchange rate began falling again in mid-June.

During the summer months, the noncash ruble rate improved by 3% monthly, and the mean monthly inflation rates ranged between 20% and 25%. Thus, from mid-June (the breaking point of the dynamics of the exchange rate) to the mid-September (the reverse breaking point), the real exchange rate of the ruble appreciated by 46% and stood at R 591/$1 in mid-September (*Table 7.2*). In the face of the appreciating ruble those businesses that had free sources to invest changed their behavior radically. For instance, earlier, the mean deposit rate barely reached 200%; the conversion of rubles into hard currency followed by reconversion several months later could bring a minimum gain of 260%. Following the stabilization of the exchange rate investors started to favor inventories and speculative real estate operations. By the end of 1993 the refinancing rate stood at 210% (17.5% per month) and the inflation index was about 13–16%. Accordingly, the real interest rate became positive, and investing in the bank deposits became more attractive than other forms of investment.

7.4 Exchange Rate Policy in 1994

Because of the severe and continuous decline of output and domestic demand in the Russian economy, the volume of Russian exports and price

Table 7.2. Nominal exchange rate (NER) and real exchange rates (RER) in Russia in the second half of 1993.

Dates	NER (R/$)	Weekly CPI	RER[a]	NER index	CPI	RER index
Jun. 8–15	1,101.30	4.40	1101.30	100.00	100.00	100.00
Jun. 15–22	1,095.20	3.90	1054.16	99.45	103.90	95.72
Jun. 22–29	1,067.80	4.30	985.44	96.97	108.37	89.48
Jun. 29–Jul. 6	1,059.20	5.90	887.72	96.18	114.76	83.81
Jul. 6–13	1,049.40	3.90	880.05	95.29	119.24	79.91
Jul. 13–20	1,026.60	4.10	827.08	93.22	124.13	75.10
Jul. 20–27	1,005.30	3.80	780.14	91.28	128.85	70.84
Jul. 27–Aug. 3	989.90	3.70	740.84	89.88	133.62	67.27
Aug. 3–10	986.00	4.50	706.37	89.55	139.63	64.14
Aug. 10–17	984.50	3.70	679.94	89.30	144.80	61.74
Aug. 17–24	985.20	3.90	654.83	89.46	150.45	59.46
Aug. 24–31	991.30	2.50	642.83	90.01	154.21	58.37
Aug. 31–Sep. 7	990.90	6.10	605.60	89.98	163.62	54.99
Sep. 7–14	998.20	3.20	591.18	90.64	168.85	53.68
Sep. 14–21	1,014.40	2.70	584.90	92.10	173.41	53.11
Sep. 21–28	1,206.20	4.10	668.16	109.53	180.52	60.67
Sep. 28–Oct. 5	1,176.60	5.00	620.80	106.84	189.55	56.37
Oct. 5–12	1,186.20	4.00	601.75	107.71	197.13	54.64
Oct. 12–19	1,193.60	4.20	581.06	108.38	205.41	52.76
Oct. 19–26	1,191.80	4.20	556.82	108.22	214.04	50.58
Oct. 26–Nov. 2	1,186.40	4.00	533.03	107.73	222.60	48.40
Nov. 2–9	1,176.20	4.00	508.02	106.80	231.50	46.13
Nov. 9–16	1,175.50	2.80	493.93	106.74	237.98	44.85
Nov. 16–23	1,204.00	3.40	489.31	109.34	246.07	44.43
Nov. 23–30	1,211.40	3.10	477.52	110.00	253.69	43.36
Nov. 30–Dec. 7	1,230.80	1.90	476.09	111.76	268.51	43.23

[a]Real exchange rate in prices of June 1993.

competitiveness of Russian products in the world market became prime concerns in 1993 and 1994. Maintaining the export sector may keep the Russian economy from a deeper depression and may provide the time and financial resources necessary for economic transformation and sectoral restructuring. In this situation the exchange rate policy is assumed to play the crucial role.

The exchange rate policy of the Central Bank of Russia has been undergoing certain changes since 1994. Early in that year, the aim of the exchange rate policy of the CBR was to reduce the disparity between inflation and the changes of the exchange rate. In January the inflation rate stood on 22% and the exchange rate shifted by 15%; in February these numbers were 10% and 11%; and in March they were 9% and 8.5%, respectively.

In January 1994, world prices of important raw materials increased: the price of oil by 5.7% and the price of mazut (black oil) by 10.5%. Since this was accompanied by the depreciation of the exchange rate, domestic commodity exchange prices grew rapidly: oil, by 42%; gasoline, by 21%; diesel fuel, by 17%; and mazut, by 17%. As a result, producer prices rose in January by 19%. However, the reduction in the disparity between inflation and exchange rate, changes in the consecutive fall of world prices, and the declining profitability of Russian exports brought about a decrease in of producer prices: 16% in February and 11% in March.

So far, the exchange rate has been an important instrument in influencing the domestic price level through cost inflation and in maintaining the competitiveness of Russian exports. In these terms, even if only by trail and error, we may expect that an effective exchange rate policy will be pursued.

Some doubts have been raised by the intention of the Central Bank of Russia to gradually decrease the refinancing rate to 110% (in comparison with 205% in May 1994) by the end of 1994. This measure is regarded as anti-inflationary and one that will stimulate the propensity to invest. But the refinancing rate does not directly impact on prices. It is a more dependent variable than the exchange rate, and reflects the fall of production and the natural fall of propensity to invest. One possible scenario following the decrease in the refinancing rate would be a change of the credit demand in favor of the banking sector at the expense of the production sector. In this situation, the foreign exchange market may experience pressure from the increasing supply of rubles, and a sharp depreciation of the national currency would follow.

In the long run, after a dynamic equilibrium is established between the basic macroeconomic indices, the Central Bank of Russia can change from the fluctuating exchange rate of the ruble to a finitely fluctuating one or a crawling peg regime. The main advantage of such a control would be the

possibility of forecasting the variation of the exchange rate in the short run. However, with rapid inflation and general economic instability, fixing the ruble rate within limits would be premature. The responsibility of the state administration and monetary authorities to maintain a certain exchange rate would lead to regular interventions in the currency market and to the exhaustion of foreign exchange reserves.

In the near future, the most probable evolution of the exchange rate arrangements will be the development of the institutional base of the exchange market.

At present a two-level exchange market operates in Russia. The first level is an interbank market, where authorized commercial banks make transactions with large currency volumes at the interbank currency exchange. The second level is an out-of-exchange market.

7.4.1 Interbank foreign currency exchange (IFE)

The IFE is a specific institute of the exchange market infrastructure. Being the institutional base of the exchange market, it has been called the locomotive of development at this market.

The low degree of liquidity of the exchange market is indicative of the early stage of its development. Now the exchange market is a mechanism of redistribution of foreign financial assets between sellers of these assets (exporters) and buyers (importers). Therefore, the main source of "feeding" the market is the foreign exchange earnings of exporters. However, in 1993, 40% of the Russian export was carried out according to the interstate agreements, that is, on a clearing basis. This practice was used in trade with Eastern Europe and with China (60% to 80% of the trade turnover with these states). Such trade did not affect the development of the exchange market. In addition, the part of trade that served state needs remained essential. In this situation export earnings do not feed the foreign exchange market; exporters get receipts in rubles for their shipments in accordance with domestic prices and profitability rates. Thus, in 1993 a considerable part of export receipts fell out of the scope of influence of the exchange market. Moreover, only 30% of the export earnings had been liable to obligatory sales in the first half of 1993.

The system of obligatory export surrender has undergone substantial changes during the reforms in Russia. The complicated system of export surrender, first to the government and then to the Central Bank of Russia, did not stimulate sales of foreign currency until mid-1992. The present-day system of 50% surrender of export earnings through the authorized

commercial banks and the interbank currency exchange, was established by trial-and-error method. Until now the concept of the export revenue surrender remained controversial. This system is expedient under the current economic situation in Russia for the following reasons:

- Because of the practice of trade on the basis of interstate agreements, the foreign exchange market would be left without necessary sources of supply.
- The monopoly on Russian exports is stronger than the monopoly on Russian imports; this means that exporting is carried out by a smaller number of enterprises.
- Different export and industrial lobbies have pressured the government into providing exemptions from the system of obligatory surrender.

The IFE is the institution where interests of the authorized commercial banks can be identified and reconciled. In this respect the IFE enhances business relations and provides an impetus to the development of the out-of-exchange interbank market by expanding the information infrastructure of the participants in this market.

The Central Bank of Russia conducts its policy through the IFE, carrying out operations of smoothing fluctuations in the exchange rate. The contribution of the total volume of interventions, pursued by the CBR on exchange markets, was about 46% of the total volume of operations.

The IFE has been designed to develop the exchange market. Regional differences have demanded the creation of the regional IFE that qualitatively aligns the territorial infrastructure of the Russian foreign exchange market.

The regions of the Russian Federation are highly dissimilar in respect to the concentration of hard currency resources. Considerable foreign currency funds of enterprises have been concentrated in Moscow and its surrounding regions (about \$5.4 billion), in the East Siberian regions (about \$2.2 billion), and in Far Eastern regions (\$1 billion). The intervention contributions of the Central Bank of Russia at the MICEX and in the residual exchange market were 47% and 30% of total operation volume, respectively. The MICEX accounted for 85% to 95% of the total volume of currency sales and about 60% to 70% of the total volume of the currency purchases by the CBR in 1993. These facts demonstrate that the Central Bank of Russia is very active in leading the exchange rate market of Russia.

Such disproportions, however, do not always reflect the role of these region in the export potential of Russia, but rather indicate the financial potential of commercial banks in each region to attract both foreign currency and

ruble assets. This high concentration of currency exchange activities leads to an exchange rate instability during the periods of financial unpredictability.

The Interbank Foreign Exchange Association, created in late 1993, must play an important role in the further development of the interbank foreign exchange market and must align the interregional imbalances of financial operations.

7.4.2 The out-of-exchange market

The out-of-exchange market is the second level of the exchange market; the operations between banks, as well as their clients, are executed in this market. The development of the out-of-exchange interbank market actually occurred in 1993. In 1992 the out-of-exchange market was used only in operations between banks and their clients. In 1993 the largest authorized commercial bank began to open credit lines to ordinary authorized commercial banks and to purchase and sell foreign currency on a contract basis. However, such operations were sporadic. Serious obstacles to regular exchanges included the lack of confidence between banks because of the undeveloped state of the information infrastructure, the poor arrangements of the system of settlements and payments, and the instability of the exchange rate. Nevertheless, in 1993 new types of transactions with hard currency, such as futures and options, and operations with the partly convertible currencies also emerged in the foreign exchange market.

In 1993 a certain functional link between the exchange and out-of-exchange sectors manifested itself. Under the condition of relative stability of the foreign exchange market, the volume of operations in the exchange sector is reduced (by approximately 50%) by stirring up operations in the out-of-exchange sector; relative instability of the market moves these proportions in the opposite direction.

The further prospect of institutional development is the formation of a civilized out-of-exchange market and the gradual disappearance of the IFE. Yet this development will take some time. Currently, the IFE has not developed its full potential in qualitatively aligning the regional exchange markets and in the increasing of the number of participants. Development of futures operations on the commodity and security exchanges, as well as the further expansion of operations with state bonds (the so-called T bills) are promising measures that have yet to be undertaken.

7.5 Conclusions

The exchange rate regime and exchange arrangements have undergone a great evolution in Russia: from fixed and multiple exchange rates to flexible rates. Earlier, fluctuations of the cash exchange rate on the black market were strongly influenced by changes in the monetary policy, inflow of the export earnings, and the pace of liberalization of humanitarian relations. However, the situation in the consumer goods market was one of the most important reasons for exchange market fluctuations until early 1992. The official unified market exchange rate was established by the Central Bank of Russia on 1 June 1992, and was the outcome of tenders arranged at the MICEX twice weekly.

Since then the exchange rate has been determined by many other factors, not only the situation in the consumer goods market or the dynamics of prices. Elasticity of the depreciation of the nominal exchange rate by CPI dropped from 0.160% in July 1992 to 0.056% in December 1993. This resulted in the appreciation of the ruble in real terms and a closing of the gap between nominal exchange rate and PPP. It also made Russian exports less profitable by the end of 1993. At the same time, the influence of M2 on the exchange rate clearly weakened. The elasticity fell from 0.288% in November 1992 to 0.210% in December 1993.

In such a situation the exchange rate does not reflect the inflationary expectations and is actually independent of the credit emission. The most important impacts of the exchange rate on the Russian economy have been the encouragement and discouragement of exports and imports and the protection of some industries from the adverse effects of depression. In this sense, the policy of a flexible exchange rate, which takes into account the rates of the domestic inflation, seems to be the most reasonable exchange rate regime.

The further evolution of the exchange markets needs the quantitative development of the regional foreign exchange markets and IFE. The differences in the economic development of the regions and the dissimilar regional conditions of banking activities make it necessary to align the territorial infrastructure of the Russian foreign exchange market. This will take time as there are many regional disparities in Russia.

The prospects of development of an institutional base can be found in strengthening the out-of-exchange market and in the gradual disappearance of the IFE. Eventually one may expect the emergence of a floating exchange rate regime.

Chapter 8

Explaining Order Imbalances in Russia's Tâtonnement Foreign Exchange Auction

Linda Goldberg and Rafael Tenorio

Tâtonnement markets are two-sided markets with discrete trading sessions and a "competitive" or "uniform" pricing rule applied to transactions, so that all winning bidders and suppliers of the traded good transact at a common price. In this chapter we explore a recent example of a tâtonnement market, the Moscow Interbank Currency Exchange (MICEX), established in Russia in January 1992.[1] The results of our analysis are instructive at two levels. First, we provide insights into the behavior of agents and key macroeconomic variables in this seldom utilized market structure, which has received widespread theoretical but scant empirical attention. Second, we discuss the implications of using this particular structure for foreign exchange trade. Our analysis focuses on the determinants of "order imbalances," the difference between currency demanded and currency supplied at a specific exchange rate.[2]

Within Russia's tâtonnement foreign exchange market, market volumes increased dramatically between early 1992 and late 1993. We argue that

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market deepening may be attributed to changes in the Russian regulatory environment and to macroeconomic incentives. Included in the regulatory changes is an expansion of the number of banks permitted to participate in the auctions. Beyond a pure volume effect, this expanded access may have altered the strategic activities of existing participants and further increased transaction volumes. This behavior is referred to as reduced "under-revelation" of net market bids or offers by participants with pricing power.

Data on initial bids and initial offers of foreign exchange in the MICEX are used to test our hypothesis that strategic under-revelation of excess demand by participants in the foreign exchange (FOREX) market diminished as market access increased. Early efforts of increasing access to the MICEX market did, in fact, lessen the monopolistic behavior exhibited in net demand for foreign currency. Stricter regulation on bank capitalization of participants had the opposite effect on the market. Moreover, net demand for foreign exchange in Russia has been quite sensitive to certain market forces, including the opportunity cost of capital.

8.1 Potential Influences on Excess Demand for Dollars at the MICEX

The main trading place for foreign currency in Russia is the MICEX, wherein both buyers and sellers of foreign exchange interact and the market is discretely cleared at each session. The clearing procedure is straightforward. The exchange rate quoted at the previous trading session is taken as the opening exchange rate for the day. Prior to the trading session, currency dealers submit preliminary applications for selling and/or buying foreign currency. In these preliminary applications, foreign exchange cannot be purchased at a price lower than the opening rate, nor can it be sold at a price higher than the opening rate. If, given this price, there is an imbalance between initial currency bids and offers, the exchange rate is adjusted in fixed increments by the auctioneer. Dealers then have an opportunity to revise their bids and offers. This process continues until supply and demand for foreign exchange (dollars) are equated.

Based on the pricing rules of the tâtonnement market, it is possible for participants in thin markets to exercise monopoly power.[3] This activity would be manifested in either the withholding of supplies if power is concentrated on the offer side of the market or the withholding of demands if power is concentrated on the bid side of the market. Because all units are traded at the same price in a tâtonnement market, traders can move the entire market

up or down by understating their excess demands. In contrast, this outcome is not possible in a double auction when each unit is priced on a bilateral negotiation basis.[4]

Goldberg and Tenorio (1995) show formally that if the concentration of power on either side of the market diminishes, existing players will underreveal by smaller amounts. This market power reduction may be associated with new entrants to the market. Changes in bid and offer volumes can thereby emerge from two forces: the altered strategic actions of existing players and the excess demand contributed by new entrants. As the number of participants on the demand (bid) side of the market increases, equilibrium volumes should rise and domestic currency should depreciate. Likewise, as the number of participants on the supply (offer) side of the market increases, the domestic currency should appreciate.

In Sections 8.1.1 and 8.1.2, we summarize the institutional features and incentives expected to influence market participation and the intertemporal aspects associated with decisions and outcomes. In Sections 8.2 and 8.3 we provide an econometric analysis of excess demand and examine the implications of these microeconomic and macroeconomic forces in the FOREX market.

8.1.1 Rules, regulations, and incentives

Bank Licensing

Any potential FOREX buyer requires a license from the exchange authorities. Thus, the authorities' choice of the number of licenses and the distribution of these licenses may be crucial for determining the concentration of excess demand for foreign exchange. More licenses could imply less concentration, and make it more likely that stated excess demands for foreign currency move closer to competitive levels.

In 1991 the number of banks participating in the FOREX market in Russia was extremely limited. Often only up to 12 banks, including the Central Bank of Russia (CBR), participated in trading sessions. "Only the most reputable commercial banks were admitted to trading, their number reaching twenty-six by the end of 1991" (MICEX, 1992, p. 6). In January 1992, the ownership structure of the MICEX was altered; it was set up as an independent joint-stock company. The 32 largest banks of the country were licensed to carry out currency operations, including the CBR and two noncommercial organizations (MICEX, 1992, p. 7). By 1 July 1992 the number of trading participants reached 51, although only a fraction of these

were active at any given trading session. By mid-1993 almost 70 banks were registered for participation in currency trading via the MICEX markets. The CBR can purchase currency for its own needs, but it can also intervene in the market in an effort to achieve an exchange rate target. In general, the CBR enters the market as a residual participant after observing the balance of initial bids and offers at a given exchange rate.

Other Changes in Regulation of Foreign Currency Transactions

January 1992 marked a period of increased openness of external activities of Russia, including expanded exporter and importer freedom of access to transacting in foreign currency. Some backtracking on this open stance occurred in late 1992 and in the second quarter of 1993 in response to periods of sustained ruble depreciation. For example, on 29 October 1992 a new law was enacted wherein foreign exchange operations were limited and restrictions were invoked on the types of transactions that could be settled in hard currency. In March 1993, two other policies intended to reduce underinvoicing of exports and nonrepatriation of export earnings were passed.[5] These regulations were intended to increase the supply of foreign exchange at the MICEX and to lead to real ruble appreciation and increased transaction volumes. To restrict the amount of foreign exchange held by banks, on 30 June 1993 the government set in place new requirements on bank capitalization. Banks were required to achieve a certain (more restrictive) relationship between the size of their hard currency accounts and that of their established capital. This policy was expected to lead to increased foreign exchange sales to balance stocks and possibly continued constraints on purely speculative activity by licensed banks in the foreign exchange markets.

Regulation of External Trade Activity

We can distinguish between two distinct forms of exporter and importer regulation, both of which are summarized in *Table 8.1*. The first type of regulation falls within the purview of conventional trade policy instruments, and includes the availability and restrictiveness of import and export licenses and the use of trade taxes and quotas.[6] The second type of regulation, discussed later in this section, arises from changes in taxation of exporters via foreign exchange surrender requirements and related actions imposed by the CBR. These latter policy initiatives are considered separately since they both alter the profitability and attractiveness of legal foreign exchange markets to exporters *and* serve to redistribute foreign exchange earnings

Table 8.1. Discrete events influencing supply and demand for currency at the MICEX.

3 Jul. 1992	Increase in taxation of exports (although exemptions were granted over time and presumably dampened the effectiveness of this initiative). Decrease in effective taxation of exporters through foreign exchange surrender regime. Increase in tariffs on imports. CBR gets reduced FXS revenues from exporters (although the CBR gradually regains these revenues in the last quarter of 1992 and first quarter of 1993 by delaying crediting accounts of exporters with rubles for surrendered foreign exchange).
1 Sep. 1992	Increase in import tariffs.
1 Feb. 1993	Increase in import tariffs.
9 Mar. 1993 & 23 Mar. 1993	Laws are introduced to tighten regulation of foreign exchange earnings from exporting and to attempt to improve repatriation. Nonresidents are admitted to currency exchange as seller; increase in restrictions on who can purchase foreign exchange.
1 Apr. 1993	Increase in import tariffs.
1 Jul. 1993	Foreign exchange surrender system is altered; exporters able to sell portion of foreign exchange earnings directly on the MICEX instead of turning it over to the CBR. This could imply improved compensation terms for exporters, since the CBR cannot delay ruble account crediting. This would also imply reduced FOREX revenues of the CBR and reduced ability of the CBR to intervene in the FOREX market.

from the exporters to the CBR. Higher taxation of exporters through the foreign exchange surrender regime leads to a reduced share of private foreign exchange supply and a potential increase in the market power of the CBR for intervention purposes.

Exporter Taxation and Regulation

The foreign trade regime in Russia was partially liberalized in January 1992. While the regulatory environment for exports experienced many additional official changes in 1992 and 1993, the expected implications of particular changes are generally difficult to predict. Prediction difficulties arise because of both the differential method in which regulation is applied across goods and the poor enforcement of these regulations.

In the period preceding June 1992 export taxes were levied mainly on the minerals and raw materials products that accounted for more than 80% of Russia's exports. Some of these taxes were reduced in the second quarter of 1992, but rates of taxation, tax exemptions, and successful collection of these taxes varied widely across products. In July 1992 many goods that had previously been untaxed, including most foodstuffs, pharmaceuticals, and chemical products, were subjected to significantly higher rates of direct taxation; these tax rates ranged between 20% and 40% of export value. Some taxes were raised while others were lowered, leaving an unclear picture of the expected effects on export earnings and the MICEX. During the second half of 1992 even more exemptions from tax payments were provided, further undermining the efficiency of the export tax collection system. When the export tax schedule shifted once again in January 1993, average taxation rates on many products declined and the export tax-exempt status of many exporters was codified. The tax regime was highly differentiated and changes in it did not have clear predictable implications for the MICEX.

Because tax collection and export activity were difficult to influence through price-based measures, in late 1992 and in 1993 the government relied heavily on quantitative restrictions on exports, including increased protection of traditional and "strategic" exporters. The purpose of these quotas and licensing requirements was to maintain the availability of goods within domestic markets. The list of goods under quotas included fish and fish products, fuel and energy products, some chemicals, synthetic rubber, and hydrocarbons. By 1993, the group of goods subject to licensing included almost 90% of Russia's recorded exports. In principle, successful application of these quota restrictions should reduce the supply of foreign exchange to auction markets. However, because these policy changes were not introduced at a single discrete date, their effects on aggregate data would be difficult to discern empirically.

In the first half of 1993, the government also attempted to increase the reporting and control of export revenues by reducing the number of exporters registered for transacting in foreign markets. Successful implementation of this type of practice could foster concentration of industry, and concentrate the market power of banks in the MICEX associated with the registered, large export organizations.

Import Barriers

During the first half of 1992 there were no trade taxes and few quantitative restrictions on import flows into Russia. In July 1992, import tariffs were

raised between 5% and 25%. In September 1992 import taxes were increased further and were more differentiated among products, but averaged 15% on the goods to which they applied.[7] In February 1993 excise taxes were imposed on a very limited set of imports and the value-added tax (VAT) of about 20% was levied on most categories of goods. Further tariff adjustments on 1 April 1993 led to increased average import taxation. It is expected that each increase in import taxation would, if binding, be associated with a corresponding decline in the demand for foreign exchange. Thus, dummy variables reflecting these import policy changes of July 1992, September 1992, February 1993, and April 1993 should capture reduced excess demands for foreign exchange. This, in turn, should lead to real appreciation of the ruble.

The Foreign Exchange Surrender Regime

The foreign exchange surrender requirements (FXS) and associated implicit taxation on Russian exporters have direct but potentially counteracting effects on the supply side of the FOREX market.[8] On the one hand, the stiffer the requirements are, the more the supply from exporters is curtailed at the auction. In addition, the rate at which surrendered funds are exchanged is also important in determining the exporters' incentives to underinvoice and to avoid channeling their proceeds through the auction. On the other hand, a larger amount of surrendered FOREX gives the CBR more resources for exercising discretionary interventions in the MICEX. The interacting effect of these two forces depends on the authorities' objectives, such as exchange rate targeting and stabilization of perceived short-term volatility of exchange rates. The FOREX collections by the CBR could also reduce the CBR demands at auctions associated with subsidized state demands for imported goods.[9]

During the period under study, key discrete changes in the foreign exchange surrender regime occurred on 3 July 1992, 18 May 1993, and 1 July 1993. On 3 July 1992 the system of foreign exchange surrender was reformed so that it imposed a greatly reduced rate of taxation of exporter earnings, thereby increasing the incentives to export and increasing the share of export earnings under the control of the exporters rather than the CBR. This would have the effect of reducing the intervention abilities of the CBR and potentially stimulating reported exports.[10]

In May 1993 oil and gas exporters were exempted from the mandatory sales of their hard-currency earnings stipulated under the FXS rules. While this move could have had significant effects on foreign exchange markets, it

basically served as a codification of activity that previously occurred despite government rules. Much of the foreign exchange earnings of the oil and gas exporters were left unrepatriated and were thereby difficult to tax by the CBR and by other domestic authorities. The overall impact on the MICEX would more likely increase the supply of foreign exchange without changing the absolute resources available to the CBR for intervention purposes.

Increased liberalization of the foreign exchange market occurred in July 1993. Although the share of foreign exchange subject to mandatory surrender did not change (remaining at 50% of exporter proceeds), instead of turning 30% of the proceeds over to the CBR, the entire 50% of proceeds were required to be sold by exporter representatives (i.e., licensed banks) in the interbank currency market. By lowering the taxation of exporters imposed through the foreign exchange surrender regime, this reform implied an effective increase in the compensation of exporters at every MICEX exchange rate. This action would increase the supply of currency at the MICEX and reduce the relative intervention power of the CBR.

Incentives transmitted through interrelated markets

Net foreign exchange demands and the ruble–dollar exchange rate also are intricately related to goods prices and asset prices in the macroeconomy. The premium on cash or black market activities are potentially important determinants of the relative attractiveness of official markets such as the MICEX. In addition, real interest rates in the domestic economy serve as indicators of the cost of borrowing in rubles for the purpose of purchasing foreign exchange (or as indicators of the opportunity cost of selling foreign exchange).[11] Changes in real rates alter the relative attractiveness of current and future transactions in foreign exchange. Due to portfolio motives, real interest rates should be inversely related to both net foreign exchange demands at the MICEX and the ruble/dollar exchange rate.[12]

Actual and expected inflation rates affect the real opportunity cost of holding rubles, and are influenced by announcements of future monetary policy and price reforms. For example, if price reforms are expected to spur an increase in inflation, agents (including banks) will attempt to adjust their portfolio of assets toward foreign exchange. This is expected to cause an increase in the net demand for foreign exchange and an immediate depreciation of the ruble at the MICEX.

Within our sample period, some potentially important and discrete actions relating to expected inflation occurred (see *Table 8.2*). These policy actions were based on monetary reform rumors in June 1992 and July 1993,

Table 8.2. Announcements and rumors.

6 May 1992	Government announces that ruble will be appreciated to R 80/$1 on 1 July 1992. Rumors also begin about the CBR running out of reserves for defending target exchange rates. These expectations trigger round-tripping foreign exchange activities by banks.
23 Jun. 1992	Rumors circulate about a pending monetary reform in Russia.
15 Sep. 1992	Government announces that energy price hikes will occur on 1 November 1992.
19 Jan. 1993	Seventh Congress of People's Deputies adopts resolution that calls for increased deficit spending. This resolution was not approved by the government.
5 Feb. 1993	The CBR announces that it may soon fix the ruble/dollar rate, but issues a retraction a few days later.
31 Mar. 1993	Rumors spread that the CBR plans to restrict the import of foreign cash by banks from their correspondent accounts abroad.
12–19 Jul. 1993	Rumors circulate about a government plan to swap money. Monetary reform occurs during week of 24 July 1993, whereby pre-1993 ruble notes are invalidated.

announcements of energy price increases in September 1992, and announcements of foreign exchange policies in May 1992, February 1993, and late March 1993.[13]

8.1.2 Micro-market incentives

In addition to the aforementioned policy changes, currency demands and market outcomes may be influenced by time and experience in transacting. Experiments on repeated market games usually show that even inexperienced agents can capture gains from trade in early periods. However, repetitions may make strategic agents more aware of their price-setting power.[14] Consequently, market participants may become more skilled at capturing their potential surpluses over time. Dynamic behavior by such agents was confirmed by Joyce (1984) in an experiment on tâtonnement markets: when agents are segregated so that more information accrues to them, the relative surplus of buyers (sellers) increases (decreases) in successive repetitions. Intuitively, this learning effect appears more likely to favor the group with higher price-setting power (concentration) or, as in Joyce's experiment, the group with the superior "experiential bias." While it is likely that such

learning effects may have been exhibited in the Russian markets, the main banks may have experienced this learning in market operations in 1990 and 1991, prior to the period under study.

8.2 Econometric Analysis of Excess Demand for Dollars at the MICEX

Using data from the MICEX market, in this section we empirically explore two themes:

- The first theme is the link between numbers of participants in the MICEX market and net initial demands or "order imbalances" among these participants. This analysis is intended to provide insights into the empirical content of strategic behavior and the under-revelation hypothesis. As shown formally by Goldberg and Tenorio (1995), by increasing the number of participants in the MICEX, the strategic actions of participants may be altered and/or there may be a pure volume effect associated with expanded access to legal foreign exchange trade.[15] The pure volume effect of the change in participation shifts excess demand at every exchange rate. By contrast, if the competitive structure of the market changes, the slope of this curve can significantly respond: since under-revelation depends on transaction volumes which in turn depend on exchange rates, more competitive markets are associated with absolute declines in the exchange rate elasticity of excess demand.
- The second theme is the effects of exogenous events and fundamental forces on the foreign exchange market. The fundamental determinants include (a) the expected opportunity cost of holding rubles, represented by the domestic nominal interest rate net of the domestic rate of inflation, $i_t - \pi_t$;[16] (b) the profitability of leakages into the second economy or cash markets proxied by the lagged value of the cash/noncash premium, δ_{t-1};[17] and (c) a vector of zero-one dummy variables Z reflecting the policy changes summarized in *Tables 8.1* and *8.2*.[18] The particular reform is indicated by a date suffix,[19] preceded by tx indicating export policies, tm indicating import policy changes, and ar indicating announcements of pending reforms.[20]

The period of our data is from 1 January 1992 to 31 August 1993. For testing of the behavior of order imbalances, we begin with a general function:

$$\begin{aligned} X_t^{initial} &= \log\left(X_t^{d,initial}\right) - \log\left(X_t^{s,initial}\right) \\ &= X_t^{initial}\left(e_{t-1}, i_t - \pi_t, Z_t, \delta_{t-1} : Bdum_t^j\right) \quad , \end{aligned} \tag{8.1}$$

where $X_t^{initial}$ is the difference between initial bids for foreign exchange ($X_t^{d,initial}$) and initial offers ($X_t^{s,initial}$); e_{t-1} is the closing exchange rate of the prior session; the dummy variable vector, $Bdum_t^j$,[21] is used to delineate discrete groupings of numbers of auction participants and changes in the regulation of auction participation: $j = 1$ refers to fewer than 41 banks participating; $j = 2$ refers to between 42 and 51 banks participating; $j = 3$ refers to more than 52 banks participating; $j = 4$ corresponds to 30 June 1993 onward and delineates the tightening of regulation on bank capitalization in relation to foreign exchange holdings.

The initial bid and offer data represent the activities of the private agents participating in both sides of the MICEX market. Included among these licensed banks are net providers of foreign currency to the interbank market, on balance reflecting the decisions of the exporters with whom they are associated. This contrasts with auction arrangements in many developing countries wherein the central bank controls the supply of foreign currency to the auction. The Central Bank of Russia also participates in the MICEX market through intervention activities, at times pursuing target (nominal) exchange rates, as in April through June 1992, or attempting to limit the volatility of exchange rates.[22] CBR activity generally occurred within the session, after initial excess demands were observed. Since intervention, in principle, did not usually take place until after trading had started, it does not need to be included in our initial order imbalance equations.[23]

The log-linearized version of equation (8.1) is used for empirical analysis:

$$\begin{aligned} X_t^{initial} &= \alpha_0 + \alpha_{0,j} Bdum_t^j \\ &\quad + \left(\alpha_1 + \alpha_{2,j} Bdum_t^j\right) \times [\text{exchange rate variable}]_{t-1} \\ &\quad + \alpha_3\left(-i_t + \pi_t\right) + \alpha_4 Z_t + \alpha_5 \delta_{t-1} + \varepsilon_t \quad , \end{aligned} \tag{8.2}$$

where all variables other than the dummy variables are entered in logarithmic form. Since the real interest rate in Russia was negative during the sample period, to take logarithms of this variable we use the negative of the real interest rate in regressions, namely, inflation less the nominal interest rate. The cash–noncash premium is constructed as the ratio of the cash exchange

rate to the "effective" noncash exchange rate. These "effective" exchange rates are distinguished from observed market exchange rates in that they adjust for foreign exchange surrender taxation imposed on exporters.[24] This adjustment is important since the system of foreign exchange surrender in Russia has, at times, taxed exporters up to 30% of their earnings for participating in legal markets.

Two alternative exchange rate specifications are utilized: a nominal effective exchange rate (EER) and a real effective exchange rate (REER). The exchange rate variable used in equation (8.2) is the logarithm of the prior session's $(t-1)$ closing exchange rate since, according to the rules of the MICEX, it is the price relevant for initial market bids and offers. The real effective exchange rate is constructed by deflating the nominal effective rate from the prior session by the current period's price level.

The $Bdum_t^j$ terms introduced into the regressions present us with insights regarding the impact of changing the participants in the foreign exchange market. If the $\alpha_{2,j}$ interactive coefficients are significantly different from zero, changes in the participation structure of the MICEX primarily indicate altered strategic play. If new entrants mainly reduce strategic play on the demand side of the market, we would expect $\alpha_{2,j}$ to be significantly positive for $j = 1,\ldots,3$ or significantly negative for $j = 4$. This underrevelation effect is distinct from pure volume effects. Pure volume effects on order imbalances from changing the participation structure of the MICEX are picked up by the additive $Bdum_t^j$ terms and the $\alpha_{0,j}$ coefficients. The signs of these coefficients are suggestive of whether the change in market structure contributed more to excess demand or to excess supply. For example, if the $\alpha_{0,j}$ are positive, excess demand for foreign exchange increased at every value of the exchange rate. This would be interpreted as suggesting that the change in bank licensing and participation expanded the activities of importers and the demand side of the FOREX market more than of exporters and those supplying foreign exchange to the market.

Finally, another issue in testing and system specification concerns the choice of data frequency. The frequency of auctions (and of exchange rate and trade volume data) changed during our sample period from weekly, to twice per week, and ultimately to daily sessions. However, the finest frequency in availability of the other variables entering in the regression equations, namely, the interbank market interest rates and cash market premia, is weekly. Two types of regressions are run to deal with this issue. First, we select a particular day of the week, Tuesdays, and use this day as representative of trading volumes and activities for the week.[25] Second, we construct weekly weighted sums of order imbalances and weighted averages of initial

session exchange rates. Each session within a week is weighted by the ratio of total session volume to the sum of volumes from all sessions during the week.

8.3 Order Imbalance Estimation Results

Tables *8.3* and *8.4* provide the results of regressions on order imbalances runs using, respectively, nominal and real effective opening exchange rates for each session. The first three columns in each table pertain to regressions over Tuesday data, while the next three columns pertain to regressions over weighted exchange rate and initial demand variables. The reported results are from regression specifications after elimination from the regression of those events-dummy variables that were clearly insignificant. The best-fitting regressions on excess demand determinants were the runs using Tuesday data and using nominal exchange rates. Our discussion focuses on the results from the Tuesday data, since the sign pattern on the different right-hand side variables were consistent across weighted data and Tuesday data, and across nominal and real exchange rate regressions.

The first noteworthy result is the insignificance of almost all dummy variables constructed to account for the increased taxation of imports. With the exception of the tariff increases of September 1992, other increases in import taxes failed to significantly reduce excess demand for foreign exchange.[26] Such insignificance could potentially be explained by poor enforcement of import tariff collection, the differentiation of tariff schedules leading to net winners and losers upon tariff adjustment dates, and/or the prevalence of exemptions granted from these tariffs. It also is possible that the demand side of the FOREX market was, at times, inelastic to this type of import taxation. By contrast, the set of export tax and import tariff measures from 3 July 1992 had the net effect of significantly increasing demand for foreign exchange at the MICEX.

Dummy variables representing laws that attempted to increase repatriation of foreign exchange earnings were also statistically insignificant. Significant reductions in excess demand for foreign currency did not occur, suggesting that exporters did not modify their use of auctions in response to these laws. While there may have been other implications of these repatriation laws – for example, on volumes of exports and directly on repatriation of earnings – such effects cannot be discerned from our data.

The regressions show that the real interest rate is, in fact, an important determinant of dollar demand, and this variable takes on the correct sign.

Table 8.3. Order imbalance regression results: lagged nominal effective exchange rate (EER) as initial price.

	Tuesday data			Weighted data		
Constant	6.361[b]	7.892[a]	9.863[a]	−0.283	−0.200	0.088
	(2.35)	(2.75)	(3.57)	(−0.34)	(−0.24)	(0.13)
$\alpha_{0,j}$ on *Bdum2*	−7.924[a]	−9.536[a]	−11.553[a]			
	(−2.78)	(−3.13)	(−3.80)			
α_1 on log (EER)	−1.487[b]	−1.822[a]	−2.247[a]	−0.029	−0.035	−0.087
	(−2.55)	(−2.93)	(−3.71)	(−0.17)	(−0.21)	(−0.61)
$\alpha_{2,j}$ on *Bdum1*[a]	0.093[c]	0.114[b]	0.129[b]			
log (EER)	(1.75)	(2.09)	(2.35)			
$\alpha_{2,j}$ on *Bdum2*[a]	1.496[a]	1.814[a]	2.216[a]	0.056	0.056	0.070[c]
log (EER)	(2.67)	(3.03)	(3.74)	(1.43)	(1.44)	(1.88)
$\alpha_{2,j}$ on *Bdum4*[a]	−0.050[b]	−0.050[b]	−0.055[b]	−0.035	−0.034	−0.037[c]
log (EER)	(−2.29)	(−2.334)	(−2.51)	(−1.45)	(−1.40)	(−1.69)
α_3 on neg.	0.049[a]	0.051[a]	0.059[a]	0.023	0.015	0.013
log (real	(3.13)	(3.31)	(3.18)	(1.21)	(0.90)	(0.86)
int. rate)	[t]	[t−1]	[t−1]	[t]	[t−1]	[t−1]
α_5 on log (cash	0.217	0.175	−0.188	0.604[c]	0.593[c]	0.414
premium)	(0.57)	(0.46)	(−0.54)	(1.84)	(1.44)	(1.79)
	[t−1]	[t−1]	[t−2]	[t−1]	[t−1]	[t−2]
α_4 on tx070392	0.678[a]	0.728[a]	0.823[a]	0.397[b]	0.385[b]	0.350[b]
	(3.06)	(3.24)	(3.52)	(2.34)	(2.24)	(2.30)
α_4 on ar091592	0.416[c]	0.456[b]	0.442[b]	0.339	0.342	0.280
	(1.95)	(2.15)	(2.07)	(1.38)	(1.38)	(1.22)
α_4 on tm090192				−0.387[c]	−0.367	−0.339
				(−1.73)	(−1.65)	(−1.63)
DW	1.572	1.621	1.66	ar(1)	ar(1)	1.47
				0.18[c]	0.18[c]	
Adjusted R^2	0.266	0.276	0.272	0.167	0.160	0.185

t-statistics in parentheses.
[a]1% significance.
[b]5% significance.
[c]10% significance.

As the return on domestic currency assets rises, demand for foreign exchange declines. Increased ruble inflation, unmatched by increased nominal interest rates, leads agents to attempt to shift to foreign assets. Alternatively, increases in the nominal interest rate beyond those necessary to keep up with inflation would also reduce demand for foreign exchange at auctions.

The cash premium, suggestive of the attractiveness of leakages of foreign exchange supplies out of official noncash markets, had the expected positive

Table 8.4. Order imbalance regression results: lagged real effective exchange rate (REER) as initial price.

	Tuesday data			Weighted data		
$\alpha_{0,j}$ on	0.104	−0.081	1.224	0.426	0.164	0.554
constant	(0.15)	(−0.10)	(1.65)	(0.65)	(0.25)	(0.99)
α_1 on REER	−0.228	−0.149	−0.591[b]	−0.323	−0.211	−0.331
	(−0.85)	(−0.50)	(−2.13)	(−1.34)	(−0.88)	(−1.61)
$\alpha_{2,j}$ on *Bdum2*[a]	0.092	0.111	0.284	0.100[c]	0.100[c]	0.104[c]
(REER)	(0.30)	(0.33)	(0.83)	(1.68)	(1.66)	(1.71)
$\alpha_{2,j}$ on *Bdum4*[a]	−0.122	−0.099[b]	−0.178[b]	−0.151[b]	−0.124[c]	−0.149[b]
REER	(−1.56)	(−2.00)	(−2.31)	(−2.15)	(−1.79)	(−2.33)
α_3 on log neg.	0.049[c]	0.036	0.057[b]	0.054[b]	0.037[c]	0.037[c]
(real int. rate)	(1.84)	(1.28)	(2.22)	(2.20)	(1.63)	(1.73)
	[t]	[t−1]	[t−1]	[t]	[t−1]	[t−1]
α_5 on log (cash	0.432	0.618	−0.326	0.074	0.284	0.064
premium)	(0.88)	(1.50)	(−0.71)	(0.16)	(0.63)	(0.17)
	[t]	[t−1]	[t−2]	[t−1]	[t−1]	[t−2]
α_4 on tx070392	0.461[a]	0.459[b]	0.382[a]	0.358[b]	0.359[b]	0.328[b]
	(3.13)	(2.31)	(2.62)	(2.39)	(2.35)	(2.17)
α_4 on tm090192	−0.443	−0.477	−0.946	−0.370[b]	−0.351[c]	−0.342[c]
	(−0.48)	(−0.46)	(−0.94)	(−2.10)	(−1.97)	(−1.91)
α_4 on *Bdum2*	0.349[c]	0.366[b]	0.378[c]	0.324[c]	0.337[c]	0.342[c]
α_4 on ar091592	(1.76)	(2.45)	(1.87)	(1.65)	(1.67)	(1.70)
DW	1.43	heterosk-corrected	1.48	1.49	1.41	1.48
Adjusted R^2	0.206	0.191	0.191	0.220	0.198	0.206
No. obs.	83	83	82	83	83	82
SSR	7.909	8.054	7.977	7.744	7.965	7.816

t-statistics in parentheses.
[a]1% significance.
[b]5% significance.
[c]10% significance.

relationship with excess demand. While the sign of this relationship is generally confirmed in the regressions, the independent statistical significance of this force is questionable during our sample period. The cash–noncash premium has greater explanatory power in regressions that omit the real interest rate term. The weak explanatory power of this variable may be due to its multi-collinearity with the real interest rate series.

For testing exchange rate elasticities of excess demand in relation to strategic play, *a priori*, we expected the Tuesday regressions to capture the relationship between initial exchange rates and initial demand better than the regressions on weekly weighted sums and averages. The process of averaging all of the sessions of the week in the exchange rate and the excess

demand terms may confound the true relationship between these variables. In fact, this expectation is also supported by the data.

The coefficient on the nominal effective exchange rate in *Table 8.3* and on the real effective exchange rate in *Table 8.4* indicate that depreciations of the ruble are associated with reduced excess demand for dollars. We also observe that the statistical significance of these relationships has changed throughout the sample period. This result confirms that Russian trade activity and foreign exchange exhibit price sensitivity.

Each interactive dummy variable $j = 1, 2, 3$, in ascending order, represents discrete positive increments in bank participation in the trading sessions. In *Table 8.3*, the coefficients of the interactive *Bdum1* and *Bdum2* terms suggest that when participation in the auctions increased to more than 32 banks and increased further to more than 42 banks, the effect of the exchange rate on excess demand for dollars becomes smaller and smaller. As participation in the market broadened, the exchange rate elasticity of excess demand adjusted in a direction consistent with reduced monopoly power among existing participants, especially on the demand side of the auction.

Also consistent with the strategic play propositions are the results from introducing the *Bdum4* dummy, which denotes tightened bank capitalization requirements relative to foreign exchange holdings. This law would potentially limit the speculative activity of small banks with lower capitalization rates. It could, therefore, increase the concentration of the MICEX market. The sign on the interactive *Bdum4* term is negative and generally a statistically significant coefficient. Consistent with this result is the interpretation that increased capitalization requirements lead to increased monopoly power among net purchasers of foreign exchange.

The regressions using nominal exchange rates also show that when participation in the auctions increased to more than 32 banks (the non-interactive *Bdum2* term), a discrete decline occurred in excess demand for dollars. Along with the elasticity results noted above, these findings may suggest that the supply side of the foreign exchange market moved toward its Walrasian/competitive level and exhibited reduced strategic play as the market broadened. However, since the *Bdum3* term is not significant in any of the regressions, it is possible that the additional entrants to the market (mainly in 1993) did not significantly change the market power of the earlier MICEX participants.

One unexpected result from the empirical analysis is the relative strength of the regressions using nominal exchange rates (using Tuesday data) as compared with the regressions using real exchange rates. Although the exchange rate entered both set of regressions with the expected signs, the

nominal exchange rate regressions provided a better fit for the data. Likewise, the interactive terms also had signs and significance patterns directly consistent with the hypotheses presented in Section 8.2.

A potential explanation for the finding that nominal rates improve the regression fit is that nominal exchange rates rather than real ones are used as the relevant information in trader's decisions. Baillie and McMahon (1989, p. 18) argue:

> The choice of a particular [exchange rate] measure will depend upon the purpose for which it is required and there is no clear cut answer to this. In some cases [foreign exchange] trade has a very short-term horizon and all costs and prices are known except the nominal exchange rate. Thus one should focus on nominal magnitudes when short-term variability in exchange rates is being considered.

If trading in the MICEX market is largely short term and for portfolio motives, rather than associated with goods trade, the nominal exchange rate may appear to be more important for market activity than the real exchange rate. The pattern of significance on the exchange rate terms in our regressions does not contradict this viewpoint.

Finally, note that the fundamental forces introduced into the equations explain less than 30% of the movement in initial excess demand for foreign exchange. Possible explanations for the large unexplained component of demand include missing variables. For example, world market prices of raw material products and political events dummies may provide better explanations of the behavior of foreign exchange supply and demand. Also, the fit of the regression may be reduced by lumpiness in the market transactions by large exporters or importers, independent of strategic behavior by these players.

8.4 Conclusions

The establishment of foreign exchange markets is viewed as an important element of properly pricing a scarce resource, foreign exchange, within developing countries and emerging market economies. The objective of establishing market-determined exchange rates is to achieve more efficient allocations of productive factors and reduced distortions in trade. In flexible exchange rate regimes, the auction market is one type of institution that can be utilized for finding equilibrium exchange rates. Within auction market structures, the tâtonnement market provides for uniform pricing of foreign exchange and discrete two-sided trading sessions. The disadvantage of the tâtonnement

structure is the potential for agents to manipulate the exchange rate and contribute to the relative thinness of the market.

In Russia we observe that market forces have strong effects on the demand for the FOREX at auctions. The opportunity cost of holding rubles, namely, both ruble inflation and real interest rates, influences demand as do some specific policy measures. In general, however, trade policies do not have strong effects on order imbalances in the official FOREX market. This can be due to a lack of enforcement and to the differentiation of these policies. It can also be because arbitrage and speculative currency transactions are more important variables in day-to-day activity in these markets.

Our results from analysis of initial bids and offers for currency from the Russian FOREX market is consistent with the conclusion that strategic play permitted under tâtonnement has been influenced both by the number of banks participating in the market and by tightened regulation of bank capitalization required for holding FOREX positions. If these new entrants impacted market volumes, the effect was relatively small. This suggests that the entry of these new participants may have dispersed existing excess demands across more banks or may have added both currency demand and supply to the market. Beyond the pure strategic effect, statistically significant changes were not observed in the quantity of excess demand for foreign exchange in either case. This suggests that weakened monopoly power can be achieved both by allowing greater overall access to the market and by decentralization of the market.

After a certain number of banks were active in this market, adding more banks in the Russian FOREX market did not significantly influence order imbalances. This could imply that the new entrants were sufficiently small players in the market so that they did not markedly alter the concentration of the market. These new banks may have diverted some market activity from other relatively small participants or may have added export supply and import demands for foreign exchange of the same order of magnitude.

Notes

[1] Applications of the tâtonnement mechanism in the real world are rare. Jarecki (1976) provides a description of gold fixing in London.

[2] For a more general discussion of alternative auction mechanisms for foreign exchange see Quirk *et al.* (1987) and Feldman and Mehra (1993).

[3] Vickrey (1961) and Hurwicz (1972) elaborate on this behavior.

[4] See Joyce (1984) and Holt *et al.* (1986).

[5] On 9 March 1993 an ordinance, entitled On Stepping Up Foreign Currency and Export Control and Developing the Currency Market, was issued. This

ordinance was intended to make the transfer of hard currency from Russia more difficult. On 23 March 1993 the government implemented a decree on stricter foreign exchange and exchange controls and the promotion of growth of the foreign exchange market.

[6] See World Bank (1993) for a more extensive discussion of the changing nature of the regulatory environment on export and import transactions.

[7] In August 1992 it was announced that a new import tariff schedule was pending, but the details of this schedule were unavailable.

[8] Goldberg (1993a, 1993b) discusses the institutional changes in the surrender requirements and provides a theoretical framework for tracing the dynamic effects of changes in this regime.

[9] See World Bank (1993).

[10] Beginning in the fourth quarter of 1992 and continuing into the first quarter of 1993, the CBR attempted to regain some of its lost foreign exchange revenues by using a veiled form of taxation. Specifically, the ruble compensation to exporters for their surrendered foreign exchange was subject to lengthy delays. Exporter accounts were not credited with rubles for up to three months following the mandatory foreign exchange surrender. In periods of high inflation (20% monthly), this was very costly to exporters.

[11] Two key interest rate series operated in Russia during the period of our analysis. First, there is a government-controlled fixed interest rate – namely, the CBR refinance rate, which is the rate at which commercial banks can borrow from the Central Bank of Russia. The CBR has changed this rate only at discrete dates. However, new commercial banks rarely rely on CBR credits for their funds and instead rely more on interbank loans. The interbank market interest rate is a flexible interest rate that is perhaps more indicative of the nominal opportunity cost of funds in Russia.

[12] Perasso (1992) and Goldberg and Karimov (1993) address this theme in greater detail.

[13] Also of potential importance are actions like the resignation of Yegor Gaidar, a key architect of economic reform strategies, from his ministerial post. Such moves could signal the willingness of the government to abandon Western-style economic reform programs.

[14] Davis and Holt (1993) survey the results of these effects in double auctions and sealed bid auctions.

[15] Also see Tenorio (1993a, 1993b) on Zambia.

[16] We assume that the contemporaneous and expected inflation rates are equal.

[17] The lagged value is used as an instrument to avoid simultaneity problems. This premium is constructed using cash market exchange rates and "effective" MICEX noncash exchange rates. The Appendix provides further details.

[18] According to portfolio and safe-haven arguments, the demand for dollars in foreign exchange market could also be influenced by political uncertainty. In principle, dummy variables could be constructed to capture the importance of uncertainty in the Russian economy relative to uncertainty external to Russia.

In practice, however, it is difficult to delineate such discrete dates of changes in the political environment and mood.

[19] Announcement dummies are equal to one for three weeks following and including an announced policy initiative. The exception is the 5 February 1993 dummy; this announced initiative was quickly retracted.

[20] Changes in the foreign exchange surrender regime that lead to shifts in the "effective exchange rate" are subsumed within this variable and not double counted in the empirical work.

[21] The perceived market structure is assumed to be identical to the actual market structure in any auction because detailed information about perceptions is unavailable. In practice, once trading begins in a market, strategic interactions and deviations from Walrasian supply can occur in a variety of ways.

[22] In the period of our estimation, attempts to manipulate exchange rates were conducted using foreign exchange sales and, less frequently, purchases. This contrasts with actions in 1990 and 1991, at which time participants in the auctions were sometimes persuaded by nonprice means to limit their activities at particular sessions.

[23] Information on intervention activity and intervention objectives of the CBR is not available, and reports of intervention activities made by market analysts have often been grossly mistaken.

[24] See Goldberg (1993a).

[25] Tuesdays were the main trading day for much of the sample period. For the Tuesday session data, the opening exchange rate is still that observed in the prior session, regardless of whether that session was on Monday or the preceding Thursday or the preceding Tuesday.

[26] In September 1992 the market also expected increased energy prices.

Appendix: The Data

The auction/interbank market sessions were held weekly from April 1991 through 24 March 1992; they were then held biweekly until 9 June 1993 when trading expanded to four sessions per week. Since 21 June 1993 trading sessions have been held daily. For each auction date we have data for market-clearing exchange rates and transaction volumes. We also have information on initial bids and initial offers at the trading sessions, encompassing the last three quarters of 1991 (quarterly data) and at each auction session between January 1992 and the end of sample. Other data used in the estimation include black or cash market exchange rates, generally reported weekly. Sources: *Commersant*; CPI, available monthly for periods preceding October 1992 and available weekly for periods after October 1992; *Russian Economic Trends*, Interbank interest rate series.

The effective MICEX rate adjusts the rate reported for taxes that accrue simply to access the official market. Following Goldberg (1993a) and World Bank (1993), for the sample period, the effective exchange rate (EER) is defined as follows:

Prior to 3 July 1992:

$$\text{EER}_t = 0.4 \times (55) + 0.1 \times (90) + 0.5 \times (\text{MICEX exchange rate}).$$

3 July 1992 to 1 November 1992:

$$\text{EER}_t = \text{MICEX exchange rate}_t.$$

1 November 1992 to 1 March 1993:

$$\text{EER}_t = (\text{MICEX rate}) \times \left[0.7 + 0.3(1 - \pi_t^w)^8\right]$$

using the weekly inflation rate.

1 March 1993 to end of sample:

$$\text{EER}_t = \text{MICEX exchange rate}_t.$$

$Bdum_t^j$ is a series of dummy variables to represent the number of banks participating in the MICEX. These dummies are defined as follows:

Bdum1 = 0 prior to 23 July 1992 and if 32 or fewer banks participate in the MICEX.
Bdum1 = 1 from 23 July 1992 to end of sample.
Bdum2 = 0 prior to 23 July 1992 and if fewer than 42 banks participate in the MICEX.
Bdum2 = 1 if 42 or more banks participate in the MICEX.
Bdum3 = 0 prior to 23 July 1992 and if fewer than 52 banks participate in the MICEX.
Bdum3 = 1 if 52 or more banks participate in the MICEX.
Bdum4 = 0 prior to 30 June 1993.
Bdum4 = 1 from 30 June 1993 onward and corresponds to the new regulation on bank capitalization in relation to foreign exchange holdings.

It should be noted that *Bdum1* is equal to 1 from 23 July 1992 onward; *Bdum2* is equal to 1 on 8 September 1992 and from 15 September 1992 onward; *Bdum3* is equal to 1 on 6 October 1992 and for most observations after 3 December 1992.

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Chapter 9

The Efficiency of Emerging Foreign Exchange Markets: The Case of the Ruble/Dollar Rate

Carlo De Nicola and Daniel Gros

The market for foreign exchange was one of the first organized markets to be permitted officially in the former Soviet Union. Already under the Soviet regime – that is, effective before prices were liberalized by the Russian government in January 1992 – the Soviet government allowed auctions of US dollars to take place. Since early 1992 these auctions for dollars were held on Tuesdays and Thursdays at the Moscow Interbank Currency Exchange.[1] The frequency of these auctions increased later in 1992 as the volume of transactions grew to several tens of millions of dollars per session.

An interesting question that arises in this context is to what extent this type of market was, or is now, efficient. A foreign exchange market (or any other asset market) is considered efficient if it does not provide opportunities for riskless profits, namely, if it is not possible to systematically make profits by forecasting future exchange rates from available data.

When a forward market exists, efficiency of the foreign exchange market implies that forward rates do not systematically deviate from future spot rates. However, this concept cannot be used for empirical analysis in the

The introduction and the conclusions were written jointly, while the Section 9.1 was written by Gros and Section 9.2 was written by De Nicola.

case of the ruble/dollar exchange rate since no real forward market has yet developed in Moscow.[2]

But even without a forward market, if market participants can systematically make forecasts that are superior to those implicit in the market, they can make riskless profits. They can indeed exploit systematic deviations from the interest rate parity condition by buying (selling) foreign exchange whenever they expect the exchange rate to depreciate (appreciate) by more than the difference between domestic and foreign interest rates.

Whether or not the foreign exchange market is efficient can thus show how quickly information circulates and can be taken into account by traders. The latter is even more important than the former because given the limited market structures that existed in Russia at the start of 1992, it was not evident that traders who had superior information on future spot exchange rates would have been able to undertake large foreign exchange operations to profit from their knowledge. A first obstacle was that, in principle, only enterprises with a valid import contract could bid for foreign exchange on the noncash auctions.[3] A second obstacle came from the state of the Russian banking system; bank transfers, that would be necessary to pay for large purchases of foreign exchange, often took weeks to be executed.

Tests of market efficiency for a transforming economy are thus even more than usually *joint* tests; not only joint tests of the equilibrium return and market efficiency, but also of the existence of an underlying market structure that allows traders to react to new information by making certain financial transactions (to get a loan in local currency to buy dollars and to transfer the proceeds to the seller). This last aspect is taken for granted in a developed market economy, but this cannot be the case for a country like Russia in 1992.

If market efficiency tests are even more than usually joint tests, it also becomes more difficult to interpret a rejection of the hypothesis that the market is efficient. However, in our view, not rejecting market efficiency implies that one has to accept that a basic financial infrastructure exists.

Our results indicate market efficiency; for the period January 1992–February 1994, we find that it is not possible to reject this hypothesis, which implies that this basic financial infrastructure existed, at least in Moscow by that period.

Yet, we discuss extensively the caution necessary in interpreting the results of the suggested theoretical framework and of our empirical analysis. In particular, we investigate, with statistical tests, the opposite stochastic hypothesis (that the evolution of the market price could have been forecasted),

and we cannot reject this hypothesis either. But we show that this would not have been enough for opportunities of riskless returns to arise.

Thus we reach two conclusions: (1) the Russian financial market is in an advanced transition phase, although in some subperiods of the time interval considered there might still have been imperfections like capital controls; (2) extreme attention must be paid to the type of statistical analysis that is used to analyze market efficiency. We suggest a battery of tests, and we suggest that a conclusion can be drawn only if the results all point in the same direction.

In Section 9.1 we provide a statistical description of the behavior of the ruble/dollar foreign exchange series. In Section 9.2 we explain the definition of efficiency that we adopted, the type of econometric tests we performed of the stochastic properties of the series, and their results. In the last section we draw conclusions.

9.1 Some Descriptive Analysis

Before testing the market efficiency using econometric techniques, it is useful to perform some crude analysis that yields interesting results on other aspects of the foreign exchange market. A crude measure of the weak form of efficiency of any asset market can be obtained by regressing the change in the log of the exchange rate on a constant and its own past. Denoting the log of the exchange rate (rubles per dollar) by s_t and the change in the exchange rate by $ds_t = s_t - s_{t-1}$, the equation used for estimation is

$$ds_t = \text{constant} + \beta ds_{t-1} + \text{disturbance} \ . \tag{9.1}$$

The coefficient on the lagged change in the exchange rate measures to what extent information on past prices can be used to make profits. Weak form efficiency implies only that the coefficient β should not be significant and that there should be no autocorrelation in the error terms.

The constant measures the unconditional expected rate of depreciation. The sign, as well as the significance level, of the constant has, *a priori*, no particular implications for market efficiency. However, in the absence of capital controls the intercept should reflect the difference between domestic and international interest rates. The magnitude of the constant can thus be used to see whether there are capital controls. For stable currencies this constant is close to zero on a weekly basis (an interest differential of 10 percentage points corresponds to a constant of 0.002), but in the highly inflationary environment in Russia this constant should be non-negligible, even if there are no capital controls.

In this analysis we use only the data for the Tuesday auctions and run-rolling regressions to admit the possibility that the structure of the market changes over time. Each regression uses data from 21 periods, starting from weeks 1 (14 January 1992) to 21 (covering early 1992) to weeks 96 to 116 (covering early 1994). The last data were from 29 March 1994.

The regressions provide some very interesting information (see *Table 9.1*). First, concerning the ordinary least squares point estimate and the standard error of β, that is, of the autoregressive element, they clearly indicate that, starting in mid-1992, the coefficient was never significant. Except for a brief period in early 1992 and for the end of the summer 1993, the point estimate is always smaller than its standard error, and it changes sign over time (assuming the usual ordinary least squares standard error). Furthermore, it is interesting to note that the standard error of the estimate of β is remarkably constant. This could suggest that this market is at least weakly efficient.

The point estimate and standard error of the estimated constant are also interesting. Here again the standard error is rather constant. Assuming the usual bounds, a significant constant can be observed for late 1992, for mid-1993, and for the end of the period under observation. This implies that only during these periods was there a definite expectation that the ruble would have depreciated. During late 1992 the expected rate of depreciation was apparently as high as 6% to 7% per week. Such a rate of depreciation would multiply the exchange rate by a factor of 18 in the course of one year. The constant of 4% observed in the spring of 1993 suggests an annual rate of depreciation of about 800%.

Since interest rates on the interbank market in Russia were (and still are) over 200%, the size of the constant suggests that there could exist capital controls that limit the ability of banks to obtain a loan in rubles and use the proceeds to invest in dollars.

9.2 Formal Tests of the Efficiency Hypothesis

To test more rigorously for the efficient market hypothesis, it is helpful to express it formally using the following model:

$$E(S_{t+1}|I_t) = \beta_1 X_t + \beta_2 Z_t + u_t \ , \tag{9.2}$$

where E is the expected value operator; S_t is the spot price of a currency; I_t is the information set; X_t is the forward price of a unit of the currency to be delivered at time $t+1$; Z_t is a vector of predetermined variables that take into

Table 9.1. Regression results with the lagged change in the exchange rate.[a]

Date	Number of observation	Exchange rate	Constant	Stand. dev.	*t*-statistics	β	Stand. dev.	*t*-statistics
1992								
14 Jan.	1	180.0						
21 Jan.	2	230.1						
28 Jan.	3	230.0						
04 Feb.	4	224.3						
11 Feb.	5	210.0						
18 Feb.	6	170.0						
25 Feb.	7	139.0						
03 Mar.	8	140.1						
10 Mar.	9	140.0						
17 Mar.	10	160.5						
24 Mar.	11	160.4						
31 Mar.	12	160.3						
07 Apr.	13	159.7						
14 Apr.	14	155.0						
21 Apr.	15	150.5						
28 Apr.	16	143.6						
05 May	17	128.0						
12 May	18	127.6						
19 May	19	126.6						
26 May	20	118.0						
02 Jun.	21	112.6	−0.0310	0.0172	−1.8090	0.2884	0.1718	1.6789
09 Jun.	22	112.4	−0.0290	0.0166	−1.7630	0.2829	0.1683	1.6814
16 Jun.	23	118.5	−0.0250	0.0162	−1.5420	0.2922	0.1692	1.7274
23 Jun.	24	146.0	−0.0040	0.0199	−0.1900	0.5656	0.2465	2.2945
30 Jun.	25	144.0	−0.0130	0.0195	−0.6460	0.3945	0.2108	1.8712
07 Jul.	26	130.5	−0.0140	0.0198	−0.7280	0.3903	0.2140	1.8234
14 Jul.	27	130.2	−0.0050	0.0177	−0.3010	0.3249	0.1892	1.7170
21 Jul.	28	151.4	0.0060	0.0174	0.3436	0.1516	0.2139	0.7087
28 Jul.	29	161.1	0.0056	0.0172	0.3285	0.2463	0.2255	1.0924
04 Aug.	30	161.4	0.0052	0.0173	0.3009	0.2379	0.2228	1.0678
11 Aug.	31	161.7	−0.0010	0.0159	−0.0830	0.2459	0.2049	1.2002
18 Aug.	32	162.5	0.0005	0.0157	0.0329	0.2878	0.2197	1.3100
25 Aug.	33	168.1	0.0021	0.0158	0.1320	0.2891	0.2208	1.3095
01 Sep.	34	210.5	0.0124	0.0189	0.6546	0.3511	0.2627	1.3368
08 Sep.	35	207.9	0.0113	0.0195	0.5798	0.2053	0.2236	0.9180
15 Sep.	36	204.0	0.0117	0.0195	0.6004	0.2002	0.2241	0.8931
22 Sep.	37	241.0	0.0225	0.0208	1.0828	0.1505	0.2395	0.6283
29 Sep.	38	254.0	0.0302	0.0200	1.5068	0.0999	0.2143	0.4661
06 Oct.	39	342.0	0.0433	0.0248	1.7462	0.1131	0.2730	0.4144
13 Oct.	40	334.0	0.0469	0.0257	1.8259	−0.0160	0.2304	−0.0690
20 Oct.	41	368.0	0.0570	0.0248	2.2949	−0.0610	0.2224	−0.2750
27 Oct.	42	393.0	0.0662	0.0249	2.6544	−0.1240	0.2215	−0.5590
03 Nov.	43	396.0	0.0698	0.0255	2.7381	−0.1660	0.2256	−0.7350
10 Nov.	44	403.0	0.0677	0.0257	2.6322	−0.1570	0.2276	−0.6920
17 Nov.	45	448.0	0.0628	0.0240	2.6137	−0.1620	0.2136	−0.7580
24 Nov.	46	450.0	0.0615	0.0238	2.5824	−0.1360	0.2259	−0.6020
01 Dec.	47	417.0	0.0640	0.0234	2.7337	−0.1600	0.2221	−0.7220
08 Dec.	48	419.0	0.0656	0.0235	2.7874	−0.1800	0.2251	−0.8000
15 Dec.	49	418.0	0.0556	0.0233	2.3864	−0.1290	0.2226	−0.5810
22 Dec.	50	415.0	0.0512	0.0228	2.2453	−0.1260	0.2295	−0.5490
29 Dec.	51	n.a.	0.0530	0.0236	2.2441	−0.1220	0.2346	−0.5210

[a]Estimation results indicated at the last date of each sample period.

Table 9.1. Continued.

Date	Number of observation	Exchange rate	Constant	Stand. dev.	t-statistics	β	Stand. dev.	t-statistics
1993								
05 Jan.	52	417.0	0.0565	0.0249	2.2692	−0.1380	0.2410	−0.5730
12 Jan.	53	423.0	0.0603	0.0263	2.2881	−0.1550	0.2480	−0.6250
19 Jan.	54	474.0	0.0660	0.0266	2.4809	−0.1780	0.2504	−0.7090
26 Jan.	55	568.0	0.0600	0.0262	2.2908	−0.1030	0.2398	−0.4310
02 Feb.	56	572.0	0.0593	0.0261	2.2734	−0.0750	0.2493	−0.3000
09 Feb.	57	561.0	0.0600	0.0263	2.2835	−0.0860	0.2511	−0.3430
16 Feb.	58	559.0	0.0454	0.0254	1.7886	0.0056	0.2424	0.0232
23 Feb.	59	576.0	0.0442	0.0244	1.8073	0.0058	0.2519	0.0232
02 Mar.	60	649.0	0.0353	0.0179	1.9731	−0.0170	0.1855	−0.0900
09 Mar.	61	650.0	0.0307	0.0177	1.7371	0.1469	0.2455	0.5982
16 Mar.	62	662.0	0.0235	0.0172	1.3695	0.2160	0.2396	0.9015
23 Mar.	63	684.0	0.0234	0.0167	1.3994	0.1936	0.2453	0.7894
30 Mar.	64	684.0	0.0229	0.0165	1.3820	0.2085	0.2476	0.8421
06 Apr.	65	712.0	0.0245	0.0165	1.4860	0.1977	0.2473	0.7996
13 Apr.	66	766.0	0.0217	0.0160	1.3554	0.2206	0.2383	0.9258
20 Apr.	67	786.0	0.0220	0.0157	1.4027	0.2636	0.2422	1.0882
27 Apr.	68	812.0	0.0292	0.0143	2.0421	0.2183	0.2194	0.9952
04 May	69	n.a.	0.0303	0.0164	1.8529	0.1994	0.2542	0.7846
11 May	70	859.0	0.0334	0.0174	1.9183	0.1738	0.2627	0.6616
18 May	71	934.0	0.0379	0.0187	2.0263	0.1327	0.2726	0.4867
25 May	72	960.0	0.0374	0.0180	2.0700	0.1142	0.2593	0.4406
02 Jun.	73	1050.0	0.0410	0.0174	2.3594	0.0966	0.2562	0.3771
08 Jun.	74	1104.0	0.0410	0.0168	2.4396	0.0970	0.2429	0.3996
15 Jun.	75	1116.0	0.0326	0.0163	1.9992	0.1480	0.2327	0.6362
22 Jun.	76	1079.0	0.0287	0.0122	2.3581	−0.0190	0.1875	−0.1020
29 Jun.	77	1060.0	0.0206	0.0118	1.7375	0.1931	0.2389	0.8082
06 Jul.	78	1058.0	0.0218	0.0112	1.9523	0.1921	0.2251	0.8535
13 Jul.	79	1036.0	0.0204	0.0117	1.7349	0.2027	0.2372	0.8548
20 Jul.	80	1010.0	0.0150	0.0118	1.2749	0.2866	0.2369	1.2097
27 Jul.	81	994.0	0.0077	0.0090	0.8555	0.3140	0.1806	1.7383
03 Aug.	82	987.0	0.0058	0.0078	0.7502	0.5114	0.1899	2.6922
10 Aug.	83	984.5	0.0047	0.0077	0.6095	0.5244	0.1876	2.7952
17 Aug.	84	984.5	0.0035	0.0075	0.4606	0.5262	0.1836	2.8656
24 Aug.	85	986.0	0.0043	0.0072	0.5876	0.5419	0.1805	3.0018
31 Aug.	86	992.5	0.0020	0.0068	0.2934	0.5635	0.1709	3.2977
07 Sep.	87	995.0	−0.0001	0.0059	−0.0250	0.5107	0.1526	3.3477
14 Sep.	88	1006.0	0.0007	0.0058	0.1252	0.5429	0.1651	3.2877
21 Sep.	89	1036.0	0.0011	0.0058	0.1902	0.5304	0.1681	3.1558
28 Sep.	90	1201.0	0.0068	0.0092	0.7366	0.6554	0.2682	2.4437
05 Oct.	91	1173.0	0.0077	0.0103	0.7450	0.2229	0.2187	1.0188
12 Oct.	92	1194.0	0.0086	0.0097	0.8906	0.2082	0.2094	0.9939
19 Oct.	93	1193.0	0.0080	0.0095	0.8358	0.2030	0.2242	0.9053
26 Oct.	94	1189.0	0.0042	0.0086	0.4866	0.1694	0.2033	0.8330
02 Nov.	95	1179.0	0.0026	0.0082	0.3203	0.0829	0.2208	0.3754
09 Nov.	96	1175.0	0.0022	0.0082	0.2705	0.0781	0.2286	0.3416
16 Nov.	97	1194.0	0.0046	0.0080	0.5795	0.0866	0.2231	0.3880
23 Nov.	98	1208.0	0.0059	0.0079	0.7468	0.0595	0.2267	0.2623
30 Nov.	99	1231.0	0.0069	0.0080	0.8565	0.0556	0.2294	0.2424
07 Dec.	100	n.a.	0.0083	0.0083	1.0009	0.0460	0.2321	0.1984
14 Dec.	101	1237.0	0.0104	0.0086	1.2017	0.0062	0.2368	0.0263
21 Dec.	102	1250.0	0.0122	0.0091	1.3443	−0.0340	0.2462	−0.1400
28 Dec.	103	1247.0	0.0128	0.0092	1.3970	−0.0580	0.2490	−0.2350

Table 9.1. Continued.

Date	Number of observation	Exchange rate	Constant	Stand. dev.	*t*-statistics	β	Stand. dev.	*t*-statistics
1994								
04 Jan.	104	n.a.	0.0139	0.0098	1.4263	−0.0730	0.2577	−0.2820
11 Jan.	105	1293.0	0.0149	0.0104	1.4343	−0.0830	0.2669	−0.3110
18 Jan.	106	1504.0	0.0160	0.0112	1.4300	−0.0920	0.2770	−0.3330
25 Jan.	107	1544.0	0.0164	0.0116	1.4079	−0.0170	0.2073	−0.0840
01 Feb.	108	1560.0	0.0171	0.0117	1.4591	−0.0240	0.2074	−0.1180
08 Feb.	109	1569.0	0.0167	0.0118	1.4184	−0.0240	0.2087	−0.1130
15 Feb.	110	1567.0	0.0143	0.0118	1.2145	−0.0090	0.2086	−0.0440
22 Feb.	111	1585.0	0.0056	0.0038	1.4872	−0.0270	0.0675	−0.3970
01 Mar.	112	1668.0	0.0082	0.0042	1.9790	0.1189	0.1011	1.1762
08 Mar.	113	n.a.	0.0069	0.0044	1.5518	0.1436	0.1059	1.3564
15 Mar.	114	1716.0	0.0077	0.0047	1.6397	0.1438	0.1083	1.3282
22 Mar.	115	1736.0	0.0088	0.0050	1.7485	0.1331	0.1117	1.1919
29 Mar.	116	1753.0	0.0106	0.0048	2.2081	0.1133	0.1057	1.0716

account market distortions, risk aversion, preferences' structure, and so on; the disturbance u represents the net effect of all the other factors affecting the relationship between $E(S_{t+1}|I_t)$ and X_t; and the subscripts indicate the point in time to which the observations refer.

Assuming rational expectations, efficiency in the foreign exchange market requires that the forward rate does not systematically deviate from the expected spot rate, so that all the coefficients in the vector β_1 should be equal to 1; this can be tested assuming absence of market distortions, of risk aversion, and of the other nonideal conditions, so that the vector of coefficients β_2 should be equal to 0. If a forward market does not exist, one can test the lack of opportunities for profits simply by checking the lack of predictability.

Indeed, depending upon which variables are included in the vector Z_t in equation (9.2), three definitions of efficiency are commonly accepted in the context of stock markets: "weak efficiency" implies that past and current prices do not help to predict future prices; "semi-strong efficiency" implies that all current, publicly available information does not help to predict future prices; "strong efficiency" implies that all current information does not help to predict future prices.

Thus, one can apply a similar concept to the foreign exchange market and check for either "weak" or "semi-strong" efficiency by testing that the foreign exchange rate follows a martingale or, equivalently, that its rate of return is a "fair game."

But since a number of studies have shown that models based on purchasing power parity or on open interest rate parity, as well as simple monetary

models or other structural models, fail to predict the exchange rate better than the random walk model (see Meese and Rogoff, 1983), we have preferred to check for predictability based only on univariate models, namely, testing a weak form of efficiency.

In this framework, three types of tests can be used: (1) tests of the dependence of the conditional expectation of the series on the previous values; (2) tests of the variance-bounds inequality; and (3) tests of the existence of trading rules that assure systematic profits.

The first type are tests of the random walk or of the martingale model. The random walk model is more restrictive than the martingale model because it rules out dependence involving conditional moments higher than the first, of the future values of the series.

The difference between tests of the first type and tests of the variance-bounds inequality is that the former tests the orthogonality of returns over short intervals, while the latter tests orthogonality at low frequencies, on averages of past and future returns.

Given the above and that the available data cover a short span at high frequency, we investigated market efficiency by testing whether the stochastic process that describes the series has a unit root, that is, whether it has a random walk component. This condition is, in fact, sufficient for the rate of return of the exchange rate being a "fair game," namely, its conditional expected value being equal to zero and opportunities of riskless profits being ruled out. Thus, exercising the necessary caution in interpreting the results, a first warning stems from the fact that we limited our analysis to the predictability of linear models: one could extend the tests to general nonlinear models, such as GARCH, ARFIMA, and chaotic models, but in this framework they are not likely to enrich the analysis significantly.

In so doing, however, we have taken into account the weaknesses of some statistical procedures popular in analogous tests carried out up to the 1980s. In particular, it is known that under the null of a unit root, the distribution of the ordinary least squares estimator of the autoregressive coefficient does not converge to the normal distribution in the usual way, and the rejection value for the significance test based on the t-statistics should be moved to the left. For this reason we have treated the analysis in the previous section mainly as a descriptive analysis, and we have emphasized when we were interpreting the "traditional" statistical indicators.

Therefore, to analyze the stochastic properties of the series, first we developed a structural time-series model, set up explicitly in terms of components that have a direct interpretation (see Harvey, 1989), still with a "descriptive" (and not testing) goal. Next, we tested for the presence of a

unit root in the available data on the ruble/dollar exchange rate via the tests provided by the recent econometric literature on unit roots.

The data are the weekly observations of the ruble/dollar exchange rate at the Moscow Interbank Currency Exchange. They cover the period from 14 January 1992 to 29 March 1994.

The postulated structural model belongs to a class of models proposed by Harvey and others mainly for macroeconomic analysis. However, the type of stochastic properties that these models intend to identify are very general. The model we use is

$$S_t = \mu_t + \epsilon_t \quad t = 1, \ldots, T \ , \tag{9.3}$$

where S_t is the logarithm of the spot exchange rate series, μ_t is the trend, and ϵ_t is the irregular component.

The model could be extended to include a cyclical component and a seasonal component, but neither economic theory nor visual investigation of the series provides any justification for such presences. Therefore, we choose the most parsimonious model. The trend is defined as

$$\mu_t = \mu_{t-1} + \beta_{t-1} + \eta_t \quad \eta_t \sim NID(0, \sigma_\eta^2) \tag{9.4}$$

$$\beta_t = \beta_{t-1} + \xi_t \qquad \xi_t \sim NID(0, \sigma_\xi^2) \ , \tag{9.5}$$

where β_t is the slope; η_t and ξ_t, the normally and independently distributed white-noise disturbances, are independent of each other.

In this general form, the trend is equivalent to an ARIMA(0,2,1) model. However, unconstrained estimation allows verification of further properties of the process. Indeed, if σ_ξ^2 is equal to zero, it reduces to a random walk with drift. Furthermore, if σ_η^2 is equal to zero, it becomes deterministic.

Estimation of this process is carried out on the time domain because three values are missing. For the same reason, diagnostic tests are not reliable and, therefore, are not put forward.

The results indicate that the variance of the irregular component can be set to zero; the variance of the slope is not significantly different from zero; and the variance of the level of the trend is significantly different from zero (the estimates of the hyperparameter are equal to 0.0026 for σ_η and to 0.00009 for σ_ξ). Thus, this first type of stochastic analysis indicates that the process follows a random walk with drift.

Next, to test the unit-root hypothesis, we have performed the tests of nonstationarity. On the series, we performed Dickey–Fuller and Augmented Dickey–Fuller tests of the null hypothesis of the process having a unit root.

Table 9.2. Sample values of the augmented Dickey–Fuller tests.

Number of lags	τ_t on the levels	τ_t on the logarithms
0	−1.87	−1.92
1	−2.73	−2.97
2	−2.60	−2.92
3	−2.61	−3.17
4	−2.83	−3.00
5	−2.63	−2.53
6	−2.21	−2.01
7	−2.53	−1.63
8	−2.46	−1.79
Critical values	5% −2.91	1% −3.53

We also tested the alternative of the process, including a deterministic trend – which is definitely more realistic on the basis of actual data. The results of these tests are given in *Table 9.2*. They show that the hypothesis of a unit root in the process cannot be rejected (that is, they do not reject market efficiency), even if one considers general alternatives like an AR(4) with a deterministic trend.

A possible critique of these results is that unit-root tests, including Dickey–Fuller types, as well as tests of the null hypothesis of the lack of a unit root, rather than of its existence, have low power – that is, they tend not to reject the null even when it is false.

We have tried to remedy this, particularly since part of the low power of Dickey–Fuller tests stems from the fact that the distribution was originally calculated by Dickey and Fuller from a data-generating process without a drift, whereas the regression is run with a drift. Therefore, we have also checked the sample values against the critical values calculated by Schmidt (1990) from a process that included a drift. Yet, the hypothesis of a unit root, and therefore that of market efficiency as above defined, cannot be rejected, and the distance between the values generated by our sample and the critical values is such that one should not worry about the low power of the tests.

To be even more confident, we also performed tests of the null hypothesis of stationarity (rather than of nonstationarity), and therefore of market efficiency. The tests are those suggested by Kwiatkowski *et al.* (1992). *Table 9.3* shows the results. The null hypothesis of a deterministic trend cannot be rejected, unless one looks at the results that include only one or two lags (only the values in the first two rows are above the critical value). However,

Table 9.3. Sample values of the Kwiatkowsky, Phillips, Schmidt, and Shin test.

Number of lags	Lagrange multiplier test for level stationarity on levels	Lagrange multiplier test for trend stationarity on logarithms
1	0.53	0.33
2	0.23	0.14
3	0.13	0.08
4	0.08	0.05
5	0.06	0.03
6	0.04	0.02
7	0.03	0.02
8	0.02	0.01
Critical values (advised number of lags = 8)	5% 0.146	1% 0.216

the literature advises, in general, to use at least 8 lags. When one does this (as in the last row of the table), the null cannot be rejected and this apparently casts doubts on the hypothesis of market efficiency.

However, if we stick to the definition of efficiency as one where riskless profits are not possible, one can still interpret these tests as not necessarily indicating market inefficiency. In fact, even if the regression coefficient (which could be used by agents to forecast the future rate of depreciation) indicates a rate of more than 300% per year both for the whole period and just for 1992, the following two facts are true: (1) even under the hypothesis that the process does not have a unit root, the traditional tests – for instance, the Durbin–Watson test – indicate clearly that the OLS estimator could be biased because of omitted variables; (2) actual data indicate a rate of depreciation of about 170% during either January 1992–January 1993 or February 1993–February 1994 (this rate could have been preferred by agents as an estimator of the future rate of depreciation). Since the actual interest rate differential was over 200% during both periods (along a positively sloped trend), it is clear that actual deviations from the hypothetical deterministic trend were not sufficient to allow riskless profits.

9.3 Conclusions

Tests of market efficiency are joint tests of market efficiency and the underlying market structure. For developed market economies the only aspect

of the market structure that is considered in market efficiency tests is the equilibrium, or *normal*, return. In an economy that starts with a history of 70 years of central planning, however, other elements of the market structure are even more important. Operators in the foreign exchange market must be allowed to make transactions and must be able to rely on the existing domestic banking system to profit from superior knowledge about the evolution of the exchange rate.

In the light of these considerations, we draw three conclusions:

1. Unit-root tests do not reject the null hypothesis of market efficiency.
2. Tests of trend stationarity, and therefore of predictability, do not reject this null hypothesis making the statistical evidence contradictory. However, this analysis does not lead to acceptance of predictability of a rate of depreciation significantly different from that implied by the interest rate differential. This shows again the absence of opportunities for riskless profits.
3. Thus far (that is, until early 1994) the actual rate of depreciation has been rather stable and the interest rate differential has tended to the rate of depreciation, probably driven by the relaxation of constraints on the possibility of exploiting deviations from uncovered interest rate parity.

Notes

[1] In a certain sense there were actually four auctions per week since there were, and there still are, two markets: a cash and a noncash market.

[2] A forward market was established in 1993, but trading volume appears to be extremely thin (in the thousands of dollars).

[3] This was not the case of the cash auctions, but in Russia noncash could not be easily transformed into cash for most of 1992.

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Chapter 10

Russia's Commercial Policy from 1992 to 1994: Liberalization Versus Protection

Vladimir Drebentsov

The opening up of the Russian economy to the rest of the world outside the former Soviet realm is an essential part of the changes the country is currently experiencing. The presidential decree on 15 November 1991 liberalizing Russia's external economic relations was one of the first acts adopted in the initial legal framework revisions that spelled out the beginning of reform. It is noteworthy that this decree was put into effect even prior to the Belovezhsky summit, at which the USSR was dissolved. Thus, even at birth, Russia as an independent country was much more open to the work of international market forces than it was as a republic of the Soviet Union. Yet assessments of the progress made since then have varied greatly. Some of these assessments have gone as far as stating that "the Russian economy remained, for all practical purposes, a closed economy," and that this should be blamed on Gaidar's team, whose "half-measures in liberalizing the Russian economy were the second sin, after the fiasco of the macroeconomic stabilization" (Dabrowski, 1993).

Views presented are the author's, and should not be attributed to the World Bank in any way. I am grateful to Bernard Hoekman and Vladimir Konovalov for their comments on an earlier draft of the paper. The paper is based on several studies conducted by the World Bank.

This paper sets aside the interesting question of who should be blamed for what, and attempts to overview actual changes in Russia's trade policy in the course of the last two and a half years. We point at interest groups and forces behind these changes, as well as assess further possible adjustments in this area and some consequences of trade regime revisions for the Russian economy.

Being the focal point of efforts of various interest groups Russian trade policy is by no means a fully consistent system evolving from one state to another. Although this would be true in almost all countries, the magnitude of problems arising during transformation of an autarkic, centrally planned economy into an open market one makes this evolution particularly volatile. Yet this does not mean that the changes do not allow for the assessment of the main trends in the Russian government's strategy on foreign economic relations.

To accomplish this task the paper analyzes government regulations with respect to the international flows of goods, as well as the particularities of adhering to these laws and government regulations and their impact on economic processes.

10.1 Russia's Strategy of Integration with the World Economy

10.1.1 Legacy of the Soviet past

If judged on the basis of exports/production and imports/consumption ratios the level of Russia's interaction with the world economy has been more intense than that of the other 14 Soviet republics. This does not mean that Russia has been at a higher stage of international integration. Along with the other republics, it must be dealt with as a giant black box on international markets, with limited and strictly regulated channels for commodity flows. Channels for capital and labor flows of any noticeable magnitude have been practically nonexistent until very recently. Direct foreign investment and labor immigration were not part of Russia's life from the 1920s up to 1988. Emigration on a small scale began in the 1970s; although having some impact at regional and professional levels, it had no influence on development of the national economy as the whole. In short, government monopoly on foreign trade, price regulation, and investment decisions made it impossible for trends in international markets to affect the development of the Soviet economy. Under such circumstances, Russia's higher exports/output

ratio relative to other republics meant only that it was better endowed with natural resources than the other Soviet republics.

Yet even price fluctuations of raw materials in world markets have not had much influence on the Soviet economy. All price increases benefited the USSR, but were not translated into significant increases in growth rates, or economic welfare, because of the general inefficiency of the centrally planned economy and its military orientation in the Soviet case. At the same time, because of its extensive resource base, the Soviet Union was able to smooth negative effects of falling prices by increasing exports volume. In doing this the USSR resembled many developing monoculture economies, in that it had to react to export price decreases contrary to common economic practice: not by decreasing output of the respective commodities, but by increasing it. Besides, all exports (particularly of military equipment and investment goods) to the socialist or developing countries that claimed socialist orientation were guided not by economic rationality, but by pure ideologic reasoning. Thus Russian industries involved in such exports felt no special economic feedback from abroad, and were not exposed to international market forces.

Moreover, imports that were reaching the Russian market did not compete with goods produced domestically. First, the official policy of strategic self-sufficiency (rooted in exaggerated defensive thinking) claimed that imports were allowed only in cases where domestic production was not possible or was temporarily insufficient. Second, although this "temporary insufficiency" was one of the main characteristics of the Soviet economy, government control over imports never allowed foreign goods to push domestic producers out of the market; therefore, the latter felt no import competition (if one can consider the market competitive in a centrally planned economy).

In summary, we may conclude that Russia has inherited a very rigid system of control over external economic relations that effectively sealed the national economy or at least shielded it from the influence of trends on international markets. Once again the black box metaphor fits: although the country has a place in the international division of labor, trends in this division have had no impact on the country's domestic development. Everything was guided by the grand vision of socialist economic planners.

10.1.2 Commercial policy: Liberalization versus protection

Imports

Given the above-mentioned widespread shortages in the Russian consumer and manufactured goods markets, it is no wonder that the government did

not think twice about liberalizing access to foreign goods when it launched its trade policy reform in 1991. Nontariff barriers were the first to be scrapped. On 31 December 1991 the government adopted decree #90 granting imports (in contrast to exports) freedom from nontariff barriers. Exceptional items, such as weapons, explosives, nuclear materials, precious metals and gems, narcotics, and poisons, were put on the list of goods allowed exclusively for licensed imports by designated companies (special importers). Besides these items licensing was required for imports of pharmaceutical products, herbicides, insecticides, and industrial waste. Consequently, coupled with the earlier presidential decree #213 granting all firms the right to participate in international trade and other operations involving no capital without special registration, this action meant opening domestic markets to an inflow of goods, guided by consumer, not government, preferences.

Tariff constraints were initially as liberal as the other measures adopted at the end of 1991. On 15 January 1992 the government of Russia issued decree #32 (made effective immediately), abolishing the USSR's import tariff schedule, which had been in effect for almost 12 years. Initially a new Russian import tariff schedule was to be prepared by 1 April 1992, but it was not until 1 July that it was actually put into effect. The prevailing tariff rate was only 5% for most goods, 15% for automobiles and video equipment, and 10–25% for alcoholic beverages. Imports of most foodstuffs and pharmaceuticals were not subject to tariffs. Although this schedule survived only for two months, it is noteworthy that during the first eight months of the Russian reform there were practically no tariffs on or explicit nontariff barriers to imports.

The undervalued exchange rate of the ruble has often been considered an effective protection against imports at that time. Accepting this statement as true, one may still notice that the ruble had been, in fact, appreciating even in nominal terms (not to mention its real appreciation – see *Table 10.1*) for the six months between the beginning of the reform and the introduction of the new import tariff schedule. Thus, the liberal orientation of Gaidar's team played at least some role in choosing initially a low level of import protection. Yet this liberal thinking could not outweigh fiscal necessity and continuing real appreciation of the ruble that caused revision of the import tariff schedule only two months after adopting it. On 1 September 1992 general tariff rates were raised to 15%. The rates increased for automobiles and video equipment to 25% and for alcohol to 20–50% (to 100% on plain spirits on 15 October). At the same time children's clothing, printed materials, and some medical equipment were added to the list of goods free of import

Table 10.1. Dynamics of the ruble exchange rate, ruble per US dollar.

		Nominal exchange rate		Real exchange rate[a]
		MICEX	Jan. 1992 = 100	Jan. 1992 = 100
1992	January	180	100.00	100.00
	February	170	94.44	43.46
	March	161	89.44	30.89
	April	155	86.11	23.56
	May	128	71.11	16.75
	June	119	66.11	13.61
	July	136	75.56	13.61
	August	163	90.56	14.66
	September	204	113.33	16.75
	October	338	187.78	24.08
	November	419	232.78	23.56
	December	418	232.22	18.85
1993	January	442	245.56	16.23
	February	559	310.56	16.23
	March	662	367.78	15.71
	April	779	432.78	15.18
	May	934	518.89	15.18
	June	1,116	620.00	5.18
	July	1,025	569.44	11.52
	August	985	547.22	8.90
	September	1,010	561.11	7.33
	October	1,193	662.78	7.33
	November	1,185	658.33	6.25
	December	1,247	692.78	5.68
1994	January	1,356	753.33	5.68

[a]Nominal exchange rate multiplied by US CPI/Russian CPI ratio.
Source: Compiled from *Russian Economic Trends*, Monthly Update, 28 February 1994.

duties. This regime remained almost intact for seven months, until April 1993, when the next revision was introduced.

Two features of the first year in experimenting with the import regime in Russia are particularly interesting. First, it is quite obvious that the tariffs introduced were not based on any sound calculations of the protection needed by domestic producers. The uniformity of tariff rates provides clear evidence of this. Tariffs have been adopted for purely fiscal purposes, with exceptions caused, on the one hand, by efforts of two lobbying groups that had been active from the very beginning (automobile makers and TV/video producers) and, on the other, by continuing shortages in socially sensitive markets (food,

medicines, children's apparel). Second, they have not differentiated between imports of intermediate inputs and final products (with the exception of automobile and TV industries), making the effective rate of protection equal to nominal tariff rates. Here we refer to the Corden equation:

$$g_j = \frac{t_j - \sum_i a_{ij} t_i}{1 - \sum_i a_{ij}} \quad , \tag{10.1}$$

where g_j is the effective rate of protection granted to the value added of industry j, t_j is the nominal import tariff in that industry, t_i is the tariff on input i, and a_{ij} is the input–output coefficient (Corden, 1986).

To illustrate the Russian government's unproductive way of thinking at the time, it is worth mentioning that, as is clearly seen from the above equation, the September 1992 revision of the Russian tariff schedule decreased the effective rate of protection in the allegedly exceptional automobile and TV industries. Indeed, g_j decreases whenever t_j grows at a slower pace relative to t_i, *ceteris paribus*. Thus, the threefold increase in the general rate (including those on intermediate products), coupled with only 1.7 times increase in the rate on automobiles and TV/video equipment, effectively meant less protection for these two industries.

Until 1 February 1993 all imports were free from the excise and value-added taxes levied on domestically produced goods. Consequently, imports of even luxury goods, which are always taxed by governments, have been treated in Russia more favorably than local products. In addition, imports of regular commodities escaped the value-added tax, while their local analogues have been subject to 28% VAT. Hence Russia's regime toward imports could hardly be described as discriminatory in 1992. As a matter of fact, technically the opposite was true prior to February 1993: for the majority of products even the 15% import tariff (not to mention 0% during the first six months and 5% in July and August), as compared with 28% VAT, indicated formal preferences granted to imports. Moreover, the dynamics of the ruble exchange rate was also favorable for imports during the period. The ruble appreciated in real terms over sixfold from January 1992 to January 1993, making imports significantly more competitive on the Russian market.

Yet even the February 1993 extension of excise taxes and VAT to imports did not totally eliminate the technical discrepancy in applying these taxes to local and import commodities. Customs cost was used for calculation of excise taxes on imports, while retail price was the base for determining excise tax payment on domestically produced goods. Hence, the similar rate of excise taxes effectively meant higher taxation for local products (see *Table 10.2*). This situation existed throughout most of 1993. Government decree

Table 10.2. Effective rates of excise taxes on imported goods and Russian goods, in percent.

		Effective rate					
	Nominal rate prior to 26 Nov. 93	Imports prior to 26 Nov. 93	Domestic prod. prior to 26 Nov. 93	Imports as of 26 Nov. 93	Domestic prod. as of 26 Nov. 93	Imports as of 14 Feb. 94	Domestic prod. as of 14 Feb. 94
Vodka	85	85	567	150	567	250	567
Hard liquor	80	80	400	150	400	250	400
Cognac	55	55	122	100	122	200	122
Champagne wines	47.5	47.5	90	100	90	100	90
Port wines	46.5	46.5	87	46.5	87	46.5	87
Wine	30	30	43	30	43	30	43
Spirits	90	90	900	250	900	400	900
Beer	40	40	67	40	67	40	67
Tobacco	37.5	37.5	60	100	60	100	60
Tires	30	30	43	30	43	30	43
Passenger cars	35	35	54	42.5	54	42.5	54
Trucks	25	25	33	25	33	25	33
Jewelry	30	30	43	30	43	30	43
Diamonds	10	10	11	10	11	10	11
Crystal	20	20	25	20	25	20	25
Carpets	10	10	11	10	11	10	11
Fur clothing	35	35	54	35	54	35	54
Leather clothing	35	35	54	35	54	35	54

Source: Compiled from government statistics.

#1185 (19 November 1993), which for the first time set excise tax rates on some imports at a higher level than those on local goods, was put into effect on November 26. However, even after this and later revisions, the effective rates of excise taxes for most imports (tobacco being an exception) have remained lower than those for Russian goods. Only recently has the government decided to eliminate this preferential treatment of imports subject to excise taxes. Only the latest tariff schedule, introduced on 15 March 1994 (which is discussed below), has a provision authorizing the customs committee and the ministries of finance and foreign economic relations to unify the basis and rates for calculating excise taxes on all products regardless of their origin. Yet, however substantial an increase in the rates for imported goods appears to be, even this does not discriminate against imports. It just equalizes the regime in this area.

With regard to excise taxes on imports, one may notice an interesting feature in Russia's pattern of consumption. Bearing in mind that excise taxes apply predominantly to nonessential imports that are mainly targeting the high-income strata of the population, it is not surprising to anyone who has been to Russia at least once that demand for such imports is highly inelastic. As a matter of fact, demand for such goods is inelastic in all countries, but it is particularly so in Russia, because there is no domestically produced substitute for the import products of even distantly similar quality. For example, no price increases on imported cigarettes could force the typical "new Russian" (or businessman) to smoke cheap Russian brands instead of Marlboro. Hence, even if the government decides to raise excise taxes on these imports well above the level for local goods, it will not affect the volume of imports, at least not until the quality of Russian goods increases significantly. Therefore, any such increases for temporary fiscal purposes would not have import-restricting consequences (though by overshooting the price they would encourage domestic production, and thus import substitution in the long run).

Returning to the revision of import tariffs in spring 1993 (presidential decree #340, 15 March 1993), it should be noted that, in general, it was not a restrictive move. *Table 10.3* shows that the average unweighted import tariff rate in fact decreased by almost two percentage points following these changes; this is also true for the weighted rate. The tariff rate has been reduced for 34 commodity groups out of 96, but has increased for only 13 (see *Table 10.4*). The variance has grown significantly: from 42 to 130. Thus, distortions caused by tariffs have soared as well; this is also evident, however, for all previous and consequent tariff schedule revisions: the variance increased from 5 in August 1992 to 276 after changes in 1994. Tariffs

Table 10.3. Import tariffs between 1992 and 1994, in percent.

	Average unweighted	Rate weighted by 1992 imports	Rate weighted by 1993 imports (first three quarters)
January–June 1992	0	0	–
July–August 1992	3.95	3.81	–
September 1992–March 1993	11.46	10.71	11.05
April 1993–1 July 1994	9.51	8.67	9.23
As of 1 July 1994	15.52	12.82	14.13

Source: Derived from *Table 10.4*.

increased on beverages (due to soaring tariffs on alcohol), gems and precious metals, and antiques and fine art: 60, 35, and 15 percentage points respectively. These increases have clearly been enacted to raise revenue, not to protect domestic suppliers. The only explicit protective measures incorporated in this revision were increased tariffs on carpets and watches (both 15 percentage points). It should be mentioned that, although tariff rates on such manufactured goods as apparel and machinery remained intact, the effective protection rate in these industries increased due to reduced rates on the respective inputs for these goods, such as cotton, silk, and ferrous and nonferrous metals.

In contrast, the most recent revision of the import tariff schedule (government regulation #196, 10 March 1994) has had an explicit restrictive orientation. Using the Russian four-digit classification of foreign trade (TN VED, similar at this level to the harmonized system), changes can be summarized as follows: tariff rates have been raised for 460 of the 933 commodity groups; they have remained unchanged for 302 groups; and for the remaining 171 they have been decreased. The average rate, computed at the two-digit level, has increased by 6.01 percentage points, from 9.51% to 15.52%. The weighted (by the first nine months of 1993) rate has increased 4.9 points, from 9.23% to 14.13%.

In accordance with the Law on Customs Tariff passed in May 1993, the highest rate is currently 100% (150% in the old schedule). Ten groups (various types of arms, explosives, and spirits) are subject to this rate. In general a 30%, or higher, rate applies to 46 commodity groups that were on the list of actual imports in 1993 (tanks, for instance, are subject to 100% tariff, but have not been imported recently).

Table 10.4. Import tariffs between 1992 and 1994, in descending order by duty rate in 1994.

Code TN VED	Jan.'92–Jun.'92	Jul.'92–Aug.'92	Sep.'92–Mar.'93	Apr.'93–15 Mar.'94	As of 15 Mar.'94	Increase from Sep.'92–Apr.'93 % pt.	Increase from Apr.'93–Mar.'94 % pt.
93 Arms, ammunition	0	5	15	15	100	0	85
36 Explosives, matches	0	5	15	15	100	0	85
71 Precious stones	0	5	15	50	55	35	5
88 Aircraft, spacecraft, parts	0	5	15	15	50	0	35
57 Carpets	0	5	15	30	40	15	10
22 Beverages	0	10	20	80	40	60	–40
87 Ground transport other than rails	0	9	15	15	30	0	15
89 Ships, boats	0	5	15	10	30	–5	20
24 Tobacco	0	5	15	15	30	0	15
63 Other textiles	0	5	15	15	30	0	15
62 Apparel, not knitted	0	5	15	15	25	0	10
69 Ceramics	0	5	15	15	25	0	10
58 Woven fabrics	0	5	15	15	25	0	10
83 Base metal articles	0	5	15	15	25	0	10
51 Wool	0	5	15	5	25	–10	20
46 Straw mats	0	5	15	15	25	0	10
6 Trees, plants	0	0	0	5	25	5	20
16 Meat, fish products	0	0	0	0	22.5	0	22.5
85 Electrical equipment	0	5	15	15	20	0	5
73 Iron, steel products	0	5	15	5	20	–10	15
64 Footwear	0	5	15	15	20	0	5
61 Knitted apparel	0	5	15	15	20	0	5
39 Plastics	0	5	15	5	20	–10	15
94 Furniture	0	5	15	15	20	0	5
42 Leather articles	0	5	15	15	20	0	5
20 Prepared vegetables, fruits, nuts	0	0	0	0	20	0	20

Table 10.4. Continued.

Code TN VED	Jan.'92–Jun.'92	Jul.'92–Aug.'92	Sep.'92–Mar.'93	Apr.'93–15 Mar.'94	As of 15 Mar.'94	Increase from Sep.'92–Apr.'93 % pt.	Increase from Apr.'93–Mar.'94 % pt.
52 Cotton	0	5	15	5	20	−10	15
44 Wood	0	5	15	15	20	0	5
65 Headwear	0	5	15	15	20	0	5
96 Misc. manu. articles	0	5	15	15	20	0	5
91 Clocks, watches	0	5	15	30	20	15	−10
66 Umbrellas, walking-sticks	0	5	15	15	20	0	5
67 Feathers, down	0	5	15	15	20	0	5
92 Musical instruments	0	5	15	15	20	0	5
17 Sugar products	0	0	0	0	17.5	0	17.5
2 Meat products	0	0	0	0	15	0	15
48 Paper, paperboard	0	5	15	15	15	0	0
70 Glassware	0	5	15	15	15	0	0
19 Prepared cereal, flour, milk	0	0	0	0	15	0	15
4 Dairy products	0	0	0	0	15	0	15
21 Misc. prepared foods	0	0	0	0	15	0	15
68 Stone, plaster, cement art	0	5	15	15	15	0	0
34 Soap	0	5	15	15	15	0	0
90 Optical, measuring equip.	0	5	15	15	15	0	0
95 Toys, games	0	5	15	15	15	0	0
49 Books, newspapers	0	5	0	10	15	10	5
47 Pulp, fibrous materials	0	5	15	15	15	0	0
81 Other base metals	0	5	15	5	15	−10	10
14 Vegetable products	0	0	0	15	15	15	0
82 Base metal tools	0	5	15	15	14.67	0	−0.33
33 Perfume, cosmetics	0	5	15	16	14	1	−2
7 Fresh vegetables	0	0	0	0	14	0	14

Table 10.4. Continued.

Code TN VED	Jan.'92–Jun.'92	Jul.'92–Aug.'92	Sep.'92–Mar.'93	Apr.'93–15 Mar.'94	As of 15 Mar.'94	Increase from Sep.'92–Apr.'93 % pt.	Increase from Apr.'93–Mar.'94 % pt.
43 Furs	0	5	15	27	12.5	12	–14.5
59 Coated textiles	0	5	15	5	12.5	–10	7.5
40 Rubber	0	5	15	5	11.17	–10	6.17
75 Nickel	0	5	15	5	10.5	–10	5.5
84 Nuclear reactors, equipment	0	5	15	14	10	–1	–4
86 Railway cars, trams	0	5	15	1	10	–14	9
11 Flour, cereal, malt	0	0	0	0	10	0	10
54 Artificial filaments	0	5	15	0	10	–15	10
37 Photographic, film equipment	0	5	15	5	10	–10	5
55 Artificial fibers	0	5	15	0	10	–15	10
60 Knitted fabrics	0	5	15	15	10	0	–5
31 Fertilizers	0	5	15	5	10	–10	5
76 Aluminum	0	5	15	5	7.5	–10	2.5
15 Animal, vegetable fats	0	0	0	5	6.71	5	1.71
38 Misc. chemical products	0	5	15	5	5	–10	0
72 Iron, steel	0	5	15	5	5	–10	0
32 Tanning, dyeing extracts	0	5	15	5	5	–10	0
25 Salt, sulfur, cement, etc.	0	5	15	5	5	–10	0
3 Fish	0	0	0	0	5	0	5
35 Modified starches, glues	0	5	15	15	5	0	–10
13 Gums, resins, other saps	0	0	0	5	5	5	0
5 Other animal products	0	0	0	5	5	5	0
1 Live animals	0	0	0	0	2	0	2
10 Grain	0	0	0	0	1	0	1
26 Ores, slags, ashes	0	5	15	0	1	–15	1
27 Fuel oils, products	0	5	15	5	1	–10	–4

Table 10.4. Continued.

Code TN VED	Jan.'92–Jun.'92	Jul.'92–Aug.'92	Sep.'92–Mar.'93	Apr.'93–15 Mar.'94	As of 15 Mar.'94	Increase from Sep.'92–Apr.'93 % pt.	Increase from Apr.'93–Mar.'94 % pt.
8 Fresh fruit	0	0	0	0	1	0	1
29 Organic chemicals	0	5	15	5	1	−10	−4
28 Inorganic chemicals	0	5	15	5	1	−10	−4
53 Other vegetable textiles	0	5	15	0	1	−15	1
41 Hides, skins, leather	0	5	15	0	1	−15	1
74 Copper	0	5	15	5	1	−10	−4
56 Felt, yarn, twine	0	5	15	0	1	−15	1
50 Silk	0	5	15	5	1	−10	−4
79 Zinc	0	5	15	0	1	−15	1
80 Tin	0	5	15	0	1	−15	1
78 Lead	0	5	15	0	1	−15	1
30 Pharmaceuticals	0	0	0	0	0	0	0
23 Food industry residues	0	5	15	0	0	−15	0
9 Coffee, tea, spices	0	0	0	0	0	0	0
18 Cocoa	0	0	0	0	0	0	0
12 Oil from seeds, fruits	0	0	0	0	0	0	0
45 Cork	0	5	15	0	0	−15	0
97 Artwork, antiques	0	5	15	30	0	15	−30
Standard deviation	0	2.26	6.49	11.39	16.61		
Variance	0	5.10	42.06	129.73	276.05		

Source: Compiled using government statistics.

The most significant increases in the tariff rates (25 points or more) are registered for the following commodity groups: tanks (95 percentage points, p.p.), firearms (85 p.p.), miscellaneous arms (85 p.p.), ammunition (85 p.p.), explosives (85 p.p.), explosive components (85 p.p.), arms spare parts (85 p.p.), matches (85 p.p.), miscellaneous flammable chemicals (85 p.p.), TV tubes and cathode lamps (55 p.p.), electrical condensers (55 p.p.), transistors and other semiconductors (55 p.p.), electrical resistors (55 p.p.), beer (45 p.p.), yachts (45 p.p.), miscellaneous aerospace equipment (35 p.p.), second-hand tires (35 p.p.), aviation equipment (35 p.p.), wine (27.5 p.p.), vans and buses (25 p.p.), and microchips (25 p.p.).

Major reductions in tariff rates have occurred for fine art and antiques (50 p.p.), watches (30 p.p.), furs (25 p.p.), and table games (20 p.p.). In addition, rates have decreased for the following: plastic products, nautical equipment, and glasswear by 15 p.p.; cruise ships, office equipment, furs, lubricants, and paper products by 14 p.p.; phone equipment, leather apparel, diskettes, synthetic furs, and footwear by 10 p.p.; insecticides, agricultural machinery, food-processing equipment, computers, and car batteries by 5 p.p.; oil and oil products, machine tool parts, petroleum products additives, petroleum coke, and essential oils by 4 p.p.; miscellaneous machinery, various types of textile machinery, and pumps and vents by 3 p.p.

As the commodity breakdown of this revision shows, the average unweighted tariff rate should increase from 3.08% to 9.73% on foodstuffs and agricultural raw materials (01–24 HS groups), decrease from 4.13% to 1.2% on ores and mineral fuels (25–27 HS), increase from 6.11% to 8.89% on chemicals (28–40 HS), increase from 11.73% to 17.92% on miscellaneous manufactured goods (42–70 HS), increase from 10.09% to 14.41% on ferrous and nonferrous metal products (71–83), and increase from 8.21% to 14.89% on machinery (84–93 HS). Among the 50 commodity groups contributing most to the total imports value (calculated for the first three quarters of 1993), an import tariff rate of 20% or higher has been applied to 16 groups. Even if these changes are fully implemented, rates over 30% would affect only 7% of Russia's imports, while rates in the 7–15% range would apply to 15.43% of the imports, and 5% or lower tariff rates would be applied to 53.81% of imports. Thus over two-thirds of imports would still be subject to rates not exceeding 15%.

Major increases in the tariff rate have occurred in sectors with the strongest lobbying power. The relative power of each sector could be measured by the amount of the increases, for there is a clear hierarchy of defense, micro-electronic, aerospace, and motor vehicle producers. To make this list complete, one should add the agricultural lobby, which managed to bargain

increases of tariffs from 0 to 10–15% on most foodstuffs. Clearly, in some instances tariffs have been raised just to make domestic producers feel safe even if the threat of imports was absent. Imports of weapons, for example, are so low, that there have been no reasons for raising the rate either for immediate protection of the market or for revenue purposes.

It is also apparent that the effective rate of protection granted to specific industries by the latest revision is higher than the nominal tariff rate. Indeed, the wider the gap between t_j and t_i, the higher the effective rate of protection is in industry j. Thus by increasing the nominal tariff rates on manufacturing products, while keeping the rates on intermediates at the old level (or even decreasing them in the case of plastics), the Russian government has raised effective protection of the respective sectors to a greater extent than the increase in nominal tariff rates indicated. Moreover, although the 1994 March revision brought about an increase in the average tariff rate that was smaller than in September 1992, it had a more distortional effect since, contrary to the 1992 change, it was far from being uniform.

Already in the period immediately following the implementation of the new tariff schedule it became apparent that it would follow the path of the previous revisions, which were amended downward for many commodity groups soon after adoption as a result of consumer lobbying. At this time interests clashed again. Mayors of three major Russian industrial cities (Moscow, St. Petersburg, and Ekaterinburg), which receive most of the foodstuffs from abroad, sent the prime minister an open letter urging for reduction in the respective rates. Simultaneously, Russia's trade partners (particularly during the March visit of US Secretary of Commerce Ronald Brown) expressed deep concern over the soaring tariffs on aircraft products and micro-electronics.

In spite of an initial, widely publicized positive reaction on the part of the prime minister to these concerns, it seemed for a while that Russian industrial and agricultural lobbies won the fight this time. Contrary to promises that Russia would shortly review its import duties for selected goods (food and certain industrial items, such as microchips and aircraft equipment), Deputy Prime Minister Shokhin strongly stressed in early April that no major changes would be implemented until October, when a timetable for gradual reduction in import tariffs should be made public according to Russia's agreement with the International Monetary Fund. Then on 18 April the prime minister signed resolution #318 postponing the introduction of all increased tariffs until 1 July. Bearing in mind the revision promised by October, this move significantly reduces the chances of their actual introduction in a shape envisaged in March.

The schedule, due to be approved in October 1994, provides for the reduction in tariffs over the period of three to five years, particularly chopping off all rates that are higher than the 30% ceiling, while it has been made clear from the beginning that the 30% import tariffs will be maintained to protect selected "sensitive" manufacturing industries. In short, it seems that after a period of consideration and hesitation, the Russian political elite has made its choice for the medium-term trade policy in favor of import substitution. The usual argument for this option is the necessity to protect domestic industries that cannot compete with higher-quality imports. This line of reasoning is supported by some academics who have laid the theoretical basis for increasing the protection of infant or negative value-added industries (though it is highly unlikely that the Russian partisans of import substitution recruited from the industrial and agricultural lobbies have ever read these papers). Without spending much time on such an approach, it is sufficient to mention that most Russian industries hardly fit the infant-industry classification and that the majority of distortions that affect the negative value-added industries are of a universal nature in the post centrally planned economies and, thus, most likely do not require special treatment.

This alleged dilemma (or imperative) – increase tariff protection or face de-industrialization – is more reminiscent of the old Soviet autarkic self-sufficiency concept than a firm and consistent policy based on economic theory. This certainly does not mean that it will disappear any time soon. In fact, examples of the Russian government's embarkment on the import substitution boat are numerous. For example, in March 1994 the government established a special currency fund to finance the upgrading of domestic production of tankers and elastomeric absorption units for liquefied petroleum gas. Production of these appliances has begun in Russia but has failed to meet world standards. Why not import them? Why is the domestic production of this equipment important? Many such questions can be asked, but all of them in vain, for clearly such government decisions are not being made on sound economic policy. The common source of foreign exchange for funds such as the one mentioned above is additional export quotas (the system of export control is discussed below) granted to industries. Thus, import substitution becomes one obstacle on the government's path to guide exports in a uniform way; after the quota is set it is not easy to control the actual spending of the foreign exchange by a particular industry.

Import tariffs that are planned to encourage import substitution have several peculiarities. As *Table 10.5* shows, the variance of import tariffs established in March 1994 has little in common with the imports/domestic production ratio of the particular products. The tariff rate is low in some

Table 10.5. Ratio of imports to domestic output for selected products, first three quarters of 1993.

Code TN VED	Product	1993 output	Imports	Imports/ output ratio, %	Import tariff as of 1 July 1994, %
8457–8461	Metal-cutting machine tools	30,800 units	2,333 units	7.57	20.00
8465	Wood-processing machine tools	13,600 units	1,098 units	8.07	5.00
8462–8463	Metal-forging/ metal-pressing machine tools	6,000 units	3,607 units	60.12	18.00
8470–8471	Data-processing machines and equipment	R 27.4 billion	R 94.64 billion	345.40	14.00
8454	Metal-casting equipment	R 4.1 billion	R 5.57 billion	135.85	20.00
8455	Metal-rolling mills	R 7.1 billion	R 44.08 billion	620.85	20.00
8444–8449, 8453	Machine tools for light industry	R 43.8 billion	R 168.24 billion	384.11	5.00
8434–8438	Machine tools for food-processing industry	R 42.2 billion	R 152.95 billion	362.44	0.00

Source: Compiled using Roscomstat data.

cases where this ratio is extremely high (to a point that domestic production is extinct). Yet it is high in other cases where the significance of imports is minimal. The only clear correlation in this table is between the import tariffs rates and the lobbying power of the industries. Indeed, producers of machinery for forest, light, and food-processing industries received little protection, while producers of machinery for heavy industries generally received a higher rate of protection. A vivid imagination is not needed to find the clue. The latter producers were (and in many cases still are) part

of the military-industrial complex, notorious for its deep-rooted ties with the government; less influential industrialists from the former sectors have fewer opportunities to find support for their protectionist ambitions with authorities.

The last, but not the least, peculiar feature of implementing more restrictive import tariffs in Russia is the high permeability of Russia's borders with other countries of the FSU. I am referring not only to bilateral agreements on free trade, which Russia has signed with all CIS countries. It is important to realize that each FSU country has its own tariff schedule, while the extensive transport infrastructure inherited by the FSU from the USSR has surpassed the so-far limited abilities of the Russian customs authorities. Even the "real" Russian borders with FSU countries (for example, with the three Baltic states) are not actual barriers for unregistered trade. Last year the Ministry of Interior and the State Customs Committee prevented about 10,000 attempts of strategic (in the Russian meaning of this term) materials smuggling; over R 100 billion worth of smuggled goods was seized. Yet this is definitely only a fraction of the unregistered shipments. It takes one look at prices of imported goods in many Moscow kiosks to realize that no import duties have been paid on these products. Not surprisingly, after raising tariffs Russia must either make its border with the FSU harder to penetrate or face the expansion of the illegal segment of its foreign trade.

This is particularly important if we take into account that, simultaneously with the introduction of higher import tariffs in Russia, some CIS members moved in the opposite direction. Kazakhstan is, perhaps, the most notable example. On 15 April (only one month after the tariff schedule revision in Russia) Kazakhstan dropped many goods (including flour, cigarettes, clothing, footwear, refrigerators, sewing and washing machines, computers, audio and video equipment, watches, and household electric appliances) from the list of products subject to import duties (previously these rates had been between 3% and 5%). Tariffs on automobiles remained intact at 2%, and were reduced on automobile spare parts from 5% to 2%. Given that the border between Russia and Kazakhstan is approximately 4,000 kilometers long (not including the Caspian Sea), it is not difficult to foresee that until Russia makes this border a real one, Kazakhstan will serve as a channel for shipment of East Asian goods to Russia with Russian customs not getting a kopeck in import duties.

Most likely, such consequences of implementing the new tariff rates have been poorly assessed by the Russian government. Clear evidence of this was the unsuccessful attempt to sign a customs union treaty with Kazakhstan. This treaty was scheduled to be signed at the Russia–Kazakhstan summit

in late March; Kazakhstan dropped the issue at the last moment. One of the key persons in Kazakh delegation stated:

> Wild duties introduced in Russia have made customs union impossible. We do not have car-manufacturing industry, and we do not see any sense in protecting Russian producers at our own expense. [The situation is] similar for foodstuffs.

A comparable fate may await Russia's attempts to unify import tariffs with the rest of CIS.

One reason for raising import tariff rates is that it is believed that this will encourage foreign direct investment; this line of argument had been used particularly by the former Deputy Prime Minister Shokhin. However, it is extremely difficult to maintain that this argument is relevant in the current situation in Russia. It is true that some countries (Canada for one) have used tariffs in the past as a way to attract foreign investment. Allegedly, they succeeded, but this was achieved by keeping other conditions equal; continuing financial instability in Russia makes a similar outcome in Russia a highly unlikely one. If there is some lesson for Russia in the experiences of other countries, it is that financial (setting aside political) stability is the single important precondition for any significant inflow of long-term capital.

Summarizing developments in Russia's import policy, one may conclude that, although a clear trend toward increasing the tariff protection of domestic manufacturing industries has emerged recently, Russia has managed to avoid nontariff restrictions on imports as well as high tariffs that many developing countries have frequently introduced. Even bearing in mind the latest exercises with concepts of industrial policy and economic security in Russia (Deputy Prime Minister Soskovets and Security Council Secretary Lobov being the most prominent advocates, respectively), it is highly unlikely that the tariff protection against imports will be further increased. The prospect of joining GATT/WTO is a clear limit in this area. Another piece of evidence of foreign trade liberalization relative to the Soviet past was the abolition of both the multiple exchange rates and the central allocation of foreign exchange.

Exports

From the very first days of independence after the breakup of the Soviet Union, the approach taken by Russia's commercial policy has been clearly different for exports and imports. If the latter has been initially more than liberal – no explicit tariff or nontariff restrictions – the former, in contrast, has been heavily embedded with both types of constraints from the very

beginning. Although the presidential decree on liberalization of foreign economic relations (#213, 1991) did not technically differentiate between imports and exports, similar sets of regulations and instruments were envisaged for both; but the actual outcome appeared to be quite asymmetric.

Government regulation #90 (31 December 1991) laid the basis for extensive export control in the newborn Russia. First, almost all exports, making up over 90% of total value, were subject to licensing. Second, most of these exports (oil and oil products, natural gas, coal, timber, newsprint, pig iron, steel, ferrous metal rolls, all nonferrous metal, fertilizers, fish, and so on) were subject to export quotas as well. Moreover, decree #91, passed simultaneously with #90, established an export tax scheme that affected a broad range of commodities (with the exception of foodstuffs). Hence, Russian exports appeared to be hindered in all possible ways that one could imagine. In fact, those very reasons that made imports desirable for customers in early 1992 (for example, permanent shortages on the domestic market) made exports undesirable from the point of view of the authorities. Besides, the initially low ruble exchange rate and a wide gap between world prices and domestic prices had an effect that hampered imports and made the exports so efficient that some intervention on the part of the government was inevitable.

But how efficiently has the Russian government handled this issue? On 1 July 1992 two decrees were put into effect. One (Ministry of Foreign Economic Relations decree #349, 17 June 1992) abolished the mandatory registration of companies that wanted to be involved in foreign trade. The other (government decree #434, 26 June 1992) shortened the list of goods that companies could sell abroad. It also introduced a list of over 190 "strategic" commodity groups (mainly at the four-digit HS level) that were allowed to be exported only by companies designated and registered by the Ministry of Foreign Economic Relations. Such "strategic" exports accounted for over 75% of the total in 1992. Thus, the government has, on the one hand, granted all firms the freedom to participate in foreign trade and, on the other, limited the number of companies trusted to carry out actual exports to about 200 "special exporters." It is noteworthy that the list of registered exporters of strategic commodities has been extensively used by the government to pick favorites and to punish those that were not loyal.

In general, this is hardly a move toward liberalization of foreign trade. Yet it could be attributed to the government's suspicion (not totally ungrounded) that nobody would be able to control the export of commodities if any company had been allowed to take part in exports. Therefore, in the government's opinion it was necessary to have this additional barrier on top

of export quotas and taxes. Naturally, with appreciation of the ruble in real terms and with the narrowing of the gap between world market and domestic prices, many commodities have been released from quotas or have had their export taxes reduced or both. This process has been chaotic. Some commodities were excluded from and then included on the list of products subject to export quotas and then excluded again (such as some foodstuffs that in September 1993 were put on the list and then dropped later). This situation has also been true for those products on the lists of "strategic" exports and those subject to "regular" licensing. However chaotic this process is, the main trend is obvious: all lists become shorter with time, but main exports are being kept on them.

The most recent change came following negotiations with the International Monetary Fund. Russia promised to remove all quotas by the beginning of 1995, and to gradually scrap all export taxes over the next year (the latter was not a new obligation, though the Russian law on customs tariff passed in May 1993 set the end of 1995 as the deadline for eliminating all tariff and nontariff export restrictions). This trend toward liberalization of exports was made equally clear in the case of export duties. (This process has been erratic, though; the number of commodity groups subject to export taxation rose from 30 in January to 70 in July 1992 and then decreased to 53 in January 1993 and to 29 in November 1993).

Three major revisions of the export tax scheme (and numerous ones for the individual commodities) have been carried out over the two years since the introduction of export duties in January 1992; the revisions were put into effect on 1 July 1992, 1 January 1993, and 1 November 1993. The highest specific rate has been reduced from ECU 100,000 per ton to ECU 80,000 to ECU 64,000, and the highest *ad valorem* rate has been decreased from 70% to 40%. With the exception of crude oil, export taxes have been reduced on all major exports over this period; all remaining export taxes should be completely eliminated in 1995. Hence constraints imposed on imports by restrictions on exports should be removed.

An extensive analysis of OECD trade barriers faced by the successor states of the USSR can be found in a recent study by the World Bank (Kaminski and Yeats, 1993). The analysis shows that only 6% of Russia's exports (plus 10% of what is now trade with the FSU) is vulnerable to EU tariff barriers. However, this figure is substantially higher for nontariff barriers: 65% and 66%, respectively. Moreover, tariff rates on imports from the FSU including Russia, which on average are 5.0% in the USA, 5.2% in Japan, and 6.6% in the EU, are 70% to 90% higher than the average tariff on all imports in these markets. This could change once Russia becomes a

full member of GATT (or more precisely the World Trade Organization, for it will likely replace GATT by the time Russia is accepted into the club), but even now these barriers are perceived by Russian exporters as the least of the problems they face. This is according to a survey conducted by the Russian Association of Industrialists and Entrepreneurs in 1993. Barriers to imports in foreign countries were ranked last among eight negative factors encountered by Russian exporters. Yet the topic of how open the world potentially is to Russian exports (particularly taking into account the changes in the commodity structure that the Russian government desires to achieve) deserves a separate careful study. This overview concludes with some remarks on the openness of the Russian economy to the world.

10.2 Is Trade Liberalization Taking Place in Russia?

Describing the Russian economy as a closed one, as cited in the beginning of the chapter, is an obvious exaggeration. In spite of the frictions, Russia's commercial policy has definitely become more liberal with time. Russia has already advanced much farther in this area than the former Soviet Union. Although protectionist feelings of some interest groups have become stronger with the real appreciation of the ruble and partisans of such an approach in the government have been voicing their concerns ever louder, Russia has not moved as far in restricting imports as many had feared. Moreover, the recent example of postponing the increase in import tariffs and the obligations taken by Russia to gradually decrease tariffs show that tariff constraints will not become a major feature of Russia's policy toward imports. In addition, the importance of the implicit import constraints that the export restrictions constitute is also fading.

Still Russia's trade policy remains biased against exports, and thus can be described as bent toward import substitution. This can be expressed by the equation commonly used in assessing a type of trade regime:

$$B = \frac{Ex(1 + t_{im} + d_{im} + ntb_{im})}{Ex(1 + s_{ex} + pr_{ex})} \quad , \tag{10.2}$$

where B is the indicator of trade regime type, Ex is the exchange rate, t_{im} is the average effective import tariff, d_{im} is the average of other import duties, ntb_{im} is the adjusted rate for nontariff import restrictions, s_{ex} is the average export subsidy, and pr_{ex} is the adjusted rate for other export privileges. If B is equal to unitary value, the trade regime is neutral; if B exceeds this

level, the trade policy can be described as biased against exports (import substitution); and if B is less than one, export promotion is the substance of commercial policy.

Even without making any calculations it is apparent that in Russia the value of the figure in parenthesis in the numerator is greater than one, while the respective figure in the denominator is smaller than one (both s_{ex} and pr_{ex} are negative values in Russia – export duties and export quotas, respectively). Hence B exceeds unitary value, and Russia's commercial policy is biased against exports and so far bends toward import substitution. Yet the practice of import substitution will not likely take the shape of the explicit policies that have been introduced in other regions, such as in Latin America. On the other hand, the chances that Russia will experience an export-driven recovery (of the East Asian NICs type) are equally low. The strategy to promote manufactured exports formally adopted by the government last spring is still more on paper than in action, and the mechanism of its implementation has not yet been developed. This delay may not be disadvantageous since the crucial question of whether such forced export diversification would affect flows of goods in a way beneficial to Russia has not been addressed. In addition, this policy is much more restrictive in government resolutions than it actually is in operation. Numerous exemptions, widespread smuggling, and fraud have made Russian exports and imports far more liberal than the analyses the government documents show.

Yet even an assessment limited to the legal framework of foreign trade certifies that Russia is at a comparatively high level of trade liberalization. The NBER project, directed by Bhagwati (1978) and Krueger (1978), defined five stages in the evolution of trade regimes. Phase I is characterized by total quantitative controls. During Phase II the trade regime becomes even more discriminatory, complex, and anti-export biased. Phase III manifests the beginning of liberalization with the relaxation of some quantitative restrictions. Phase IV witnesses the replacement of quotas by tariffs, while Phase V is full-fledged liberalization. Apparently Russia does not fit precisely into any of these phases. However, one could probably locate it at a point somewhere between the third and the fourth phases (closer to the fourth than to the third). Moreover, Russia is close to taking the hard-tariff path (at least it has committed itself to slashing tariffs in a programmed way) that has been advocated by many (Corden, 1992, for instance) as a vital condition for preventing the transitory protection, which has been granted to domestic industries, from becoming a permanent distortion in the allocation of resources.

In summary, one may conclude that whatever specific definition of liberalization is applied, this process is certainly taking place in Russia, and will most likely continue at a fast pace.

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Part IV

The Competitiveness of Russian Commodities

Chapter 11

Conditional Comparative Advantages of the Russian Economy: Development of Organizational Capabilities to Export

Yevgeny Kuznetsov

The transformation of static (existing) comparative advantages into dynamic (acquired) comparative advantages is at the heart of export-led development. In an effort describe specific processes in post-socialist Eastern Europe, particularly in Russia, this paper develops a concept of conditional comparative advantages. This concept emphasizes multiplicity of patterns in the evolution of existing endowments of human capital, tacit know-how, and fixed assets, depending upon the speed of organizational learning, the availability of capital, as well as other factors.

In 1993 Russian exports of machinery, transportation, and other equipment continued to decline, descending to a level of $3.0 billion dollars; this was 80% of the 1992 level. Imports of machinery declined to $10.2 billion, 70% of the 1992 level (*Kommersant Daily*, 1994). The 20% decline in the export of machinery is roughly in line with the decline in industrial output,

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but it is somewhat smaller than the 1993 decline of 23–35% in the output of machinery.[1] The decline of machinery exports, *per se*, resulting largely from the macroeconomic and demand shocks of 1992–1993 provides little indication of the dynamics of the competitiveness of Russian machinery exports. There is little doubt that Russian manufacturing output is largely uncompetitive (if only because the Soviet development strategy strongly discouraged, rather than promoted exports). Efforts to promote previously domestic lines of manufacture are likely to provide a somewhat reliable indicator of the dynamics of competitiveness. To identify emerging directions of such dynamics, in 1993 and 1994 micro-level case studies and surveys of previously military-related plants (newcomers to civilian manufacturing exports) were completed.[2]

This paper relies on case studies of 10 Russian manufacturing firms in the electronics, aviation, and space industries, as well as on information on an additional 30 enterprises. Section 11.1 presents examples of firms that made a relatively successful transition to export promotion; this section serves as the basis for the remainder of the paper. Section 11.2 outlines the main stylized facts on the evolution of competitiveness of Russian manufacturing firms. Section 11.3 – central to this chapter – sets forth a descriptive model of the dynamics of Russian comparative advantages and introduces the notion of conditional comparative advantages. Section 11.4 provides a discussion of appropriate government measures to enhance the competitiveness of manufactured exports and the emerging organizational forms most conducive to exports. The conclusion outlines directions for further research.

11.1 Examples of Export Promotion

In Russia the largest endowments of skilled labor, R&D personnel, and high-quality assets are located in enterprises that were formerly in military manufacturing.[3] With the dramatic decline of military demand many of these firms are trying to shift to civilian exports. In this section I provide a description of two enterprises that earlier had never made civilian exports but are now subcontracting with Western partners and are trying to enter the market with their own final manufactured product. I believe that accounts of these enterprises provide a fairly accurate picture of the problems that other formerly state-owned firms face in entering the world market.

One firm is medium-sized (about 4,000 employees in 1992), and the other is large (18,000 employees in 1992). The medium-sized firm is located in Vyborg (St. Petersburg region) and formerly produced electronic

control equipment; the large one is in Voronezh and manufactured missile engines and other space equipment. Civilian production was small in both of them. In 1992 military orders decreased in both enterprises by a factor of 10, relegating defense-related manufacturing to a marginal role. For both enterprises adjustment costs to switch to civilian manufacturing were quite large; the use of expensive nonferrous and precious metals precluded any direct application of the technologies to the civilian sphere. The assets for civilian production were limited to human capital, part of fixed capital (such as nonspecialized equipment), and plant infrastructure. Plant layout needed to be changed. The problem was how to choose the product mix that would use both fixed assets and human skills originally created for different purposes. There were no ready technologies to rely on.

Tangible endowments of both enterprises can be divided into illiquid (fixed capital used for manufacturing) and relatively liquid (inventories of certain inputs such as ferrous and precious metals, social infrastructure such as housing and office buildings). Working capital to facilitate adjustment was provided by the central government as either subsidized credit or grants. Both inventories and social infrastructure at military enterprises were quite substantial.

11.1.1 The Vyborg enterprise

The Vyborg manager believed that the plant ultimately would be able to produce low-cost electronic microscopes for export to the market niche of educational institutions. He followed a multistage strategy to enhance backward manufacturing linkages. First the manager engaged in sophisticated rent-seeking (obtaining credits from the government at subsidized rates) to buy time to readjust technologies so that they could serve subcontractors in Western companies.

In the second stage of adjustment, relatively unsophisticated intermediate products were produced with the emphasis on the quality of the output rather than costs. At the end of 1992 the average monthly wage at the plant was $25. Accumulated input inventories were used, and energy prices were still a fraction of the world market prices. Thus costs of manufacturing were negligible and almost irrelevant: what mattered were the quality of the product and the ability to find and maintain relationships with suitable foreign partners.

The manager realized that his competitive advantage in low-cost manufacturing was partly transitional: with macroeconomic stabilization and the unavoidable increase of energy prices, the low-cost advantage would

disappear. Therefore, modest investments were made to move into slightly more sophisticated manufacturing, such as the production of electronic equipment for ships and cars and, more importantly, to ensure timely and reliable delivery of the output to the foreign partner. The sources of investment were government credits and earnings retained from the previous stage.

The reliability of the Vyborg enterprise, despite institutional turmoil, costly contract enforcement, and pervasive bottlenecks in the infrastructure, convinced the foreign partners to disregard the otherwise uninviting business climate and to start making investment commitments. The commitments began with the long-term lease of production equipment. Conditions for direct foreign investment are currently being negotiated.

Using the military-related R&D, the manager established several small firms to design commercially viable final products. One example was an electronic microscope, the optical part of which was a free by-product of earlier R&D activities performed for the army and therefore (due to military R&D) can be produced at low cost and with superior quality. Pilot samples of the microscope have been sold to German customers. The problem in expanding exports is not the lack of financing to establish commercial manufacturing, but rather a shortage of both funds and expertise to organize the customer infrastructure abroad. There are significant initial costs to enter the highly oligopolistic market of optic-electronic equipment. Yet occasional sales do happen; electronic microscopes were shipped from this plant to Switzerland in 1993.

The strategy of sophisticated subcontracting, while attempting to penetrate the market for high-tech final goods, appears to be successful: in 1993 export revenues accounted for two-thirds of all the Vyborg enterprise's revenues.

11.1.2 The Voronezh enterprise

This enterprise started searching for profitable civilian manufacturing after its first attempt at conversion in 1989 during the Soviet period. The links were strengthened with Gasprom (the largest producer and distributer of gas in Russian) at the time when its head was the current Russian Prime Minister Victor Chernomyrdin. A small design bureau was established to design oil and gas equipment. The technology of space equipment – the military product of the enterprise – is somewhat similar to that of oil and gas equipment. Therefore, the costs of retooling were modest and finance for working capital was provided directly by Gasprom. As output of the oil and

gas equipment expanded, Gasprom increased its financial support, making it possible to start exporting certain types of equipment to Hungary under subcontracts. Hungary then assembled the equipment and sold a substantial part of it back to Gasprom.

What happened next was import substitution rather than export promotion: the Voronezh plant reduced the value of the equipment assembled in Hungary by providing components. Nonetheless, the revenues from Hungary were in hard currency (more than $1 million in 1993). These funds were used to promote subcontracting plans with American firms that were taking advantage of the high technology available at the Voronezh plant.

After more than three years of negotiation, which involved certification of the relevant machinery, a contract for $0.2 million was signed with firms in Houston. The agreement was set up to establish the delivery of certain types of specialized components for oil equipment. The Voronezh plant's cost advantages are substantial: transportation expenses make up one-third of the costs and yet the exported components still remain competitive. The objective of the firm is to provide the assembly of blocks of oil equipment (rather than provision of components) for Houston manufacturing companies.

11.1.3 Common features

Despite several differences, the two enterprises share common features that are typical of all newly emerging exporters:

- Idiosyncratic finance arrangements. In the Voronezh case finance was provided by Gasprom; in the Vyborg case the need for finance was eliminated by leasing equipment to customers. The ability to raise funds to promote a competitive advantage seems to be a major condition for export success.
- Relationship with foreign partner growing incrementally. A reputation for being a trustworthy and reliable partner seems to be paramount. Personal trust between Russian management and Western management is of utmost importance.
- Reliance on skilled labor. Even though output for subcontracting is less sophisticated than the high-technology products produced for the military, highly qualified engineers and skilled labor remain essential for production. For years the relative high quality of Soviet military hardware was maintained not by applying superior technology in the manufacturing but rather by relying on skilled labor and imaginative engineering. This remains the case during the shift to civilian exports.

- Export strategy during the sequential unfolding of certain "stages of export growth." These stages were listed in the Vyborg example. They are also clearly present in other enterprises that were studied.

These two examples set the export trend that is an exception in the sense that new exporters are still relatively rare. Machinery exports are still largely based on export contracts that were negotiated during the years of the planned economy; these contracts remain profitable only as long as certain key inputs are underpriced. Malakhov and Salun (1993) call such export marginal exports. The stylized facts of a transition from marginal to sustainable exports are outlined in the next section.

11.2 Stylized Facts in Russian Manufacturing Export

11.2.1 Transitional export incentives and comparative advantages

Numerous attempts to divert the manufacturing facilities of the Russian military industrial complex to civilian purposes has created a sizable amount of commercial R&D that, because of the fuzzy property rights, the newly emerging semiprivate exporters receive virtually free.[4] Similarly, the weakness of the relevant institutional infrastructure and historic isolation of the research community of the military-industrial complex impedes the massive brain drain to the West. Thus the most important components of comparative advantages in manufacturing are either free (R&D) or grossly underpriced (human capital). As the initial R&D portfolio is exhausted and the institutional infrastructure to enhance mobility of high-quality labor develops, one would expect certain comparative advantages in manufacturing to disappear almost completely. Partly due to the East Asian experience there is a tendency to distinguish between static (current) and dynamic (acquired as a result of learning) comparative advantages. The implication is that over time comparative advantages tend to be enhanced. In the Russian case one can witness the opposite process in which certain comparative advantages tend to disappear.

In a somewhat similar fashion one can expect huge transaction costs of doing business with the newly emerging states of the former USSR if only because of rudimentary financial mechanisms and costly contract enforcement. Much lower variable transaction costs of doing business with a foreign partner provide additional incentives to shift toward export; these incentives

will disappear when the legal framework of interrelations among the states of the former USSR develops.[5] It should be emphasized that transitional distortions are greater and more long-lasting than the widely noted transitional incentives for exports. Exports benefit from an undervalued ruble and government regulations that maintain low prices for inputs such as energy. Assuming (somewhat overoptimistically) that the Russian government is committed to stabilization, one would expect that government-induced distortions would diminish, while institutional distortions creating peculiar export incentives would likely prevail for many years.

11.2.2 The manager's role in defining a firm's production (export) possibility frontier

Conventional logic of economic theory assumes that each firm has a well-defined productive potential that is determined by technology (the production function). Non-maximizing behavior or distorted incentives on the part of labor and in particular on the part of management would result in actual output that is less than the potential; this is Liebenstein's X-inefficiency. In a number of medium-sized enterprises that formerly produced defense and nondefense products the output mix has changed completely.

Former military producers have become subcontractors to Western manufacturers often by leasing equipment and retraining labor. In such a situation it is useful to adopt a framework that assumes that initially (for instance, because of demand shock and change of relative prices) the profitable production set is zero – that is, the firm may go bankrupt. However, as a result of technological and organizational searches, a new output mix and new customers are found by management. The production possibility frontier then gradually expands. Based on my estimates only 10% of enterprises in the military-industrial complex have successfully changed their output mix. However, this figure is significant enough to hypothesize that under conditions of dramatic macroeconomic demand shift, the single most important comparative advantage (along with low-cost educated labor) is low-cost managerial capability to move into new markets.

11.2.3 Successful exporters are turnaround specialists rather than conventional managers

Since the concept of enterprise in the former socialist economies was hardly meaningful, from either standard transaction cost or economies of scale considerations, it is no wonder that the unfolding privatization launched

a massive process of breakups. Energetic managers of units in former enterprises have the ability to create independent firms. However, enterprise managers would normally retain control over this newly emerging firm by creating a holding company that pulls together units of their and other enterprises that they deem efficient. Managers, thus, become turnaround specialists with a mandate to carry out the necessary layoffs which they would not be able to perform as part of the old large firm because of the traditional paternalistic attitude toward employees.[6] Up to 40% of the labor in the Soviet military-industrial complex was employed in the social sphere and security units; therefore the ability to perform energetic downsizing seems crucial to maintain the initial comparative advantages.

11.2.4 The gap between a firm's comparative advantages based on costs and technology and that based on organizational ability to respond to opportunities

The distinction between comparative and competitive advantages was emphasized by Chandler (1990), for whom the cost curves suggested by technology were no more than figments of an economist's mind. Realization of cost curves requires a set of supporting institutions and development of organizational capabilities of the firm. In a set of 10 Russian enterprises that have been studied this was certainly the case. Superior technology was by no means a guarantee of successful export performance: rather it was the ability of the management team to change the output mix and to learn to work with an appropriate foreign partner. Even at this stage of research it was possible to identify combinations of firms/products that have cost/quality advantages. *Table 11.1* lists measures of organizational capabilities required for exporting (as determined by the learning required). Our preliminary hypothesis is that the observed stagnation of Russian manufacturing exports is due to rudimentary organizational capabilities rather than due to the lack of comparative advantages *per se*. Accordingly, efforts should be directed primarily to organizational learning for exporting. The stylized facts discussed above suggest that to study the problems of manufacturing exports in the former USSR, one should focus on managerial strategies to enhance competitive advantages. The emphasis on managerial strategies and competitive advantages is all the more relevant because it is misleading to focus on the export performance of the individual firms. The fluid industrial structure implies that the firm may break up or become part of larger establishments and that it is managerial strategy (manager as a turnaround specialist) that drives the entire process. Similarly, one cannot focus on

Table 11.1. Comparative advantages in the manufacturing industry in transition; the examples are from the Russian economy.

	Insignificant organizational learning required	Very significant organizational learning required
High-technological cost advantages	*Windfall Gain* Intermediate products. Components produced with cutting-edge technology. Example: Manufacturing uranium, specialized electronic and mechanical components.	*Rising Star* Manufacturing of final output with steep learning curve and significant scale economies. Example: Electronic microscope for certain market niches.
Low-technological cost advantages	*Working Horse* Manufacturing of intermediate inputs and components based on cost advantages. Example: Components for machine tools.	*Potential Trap for Outsider* Output with transitional cost advantages requiring substantial organizational learning. Example: Shipbuilding.

comparative (technological) advantages because they are often not defined operationally (stylized fact 2), may have an extremely complex dynamics that is difficult to quantify (stylized fact 1), and have a weak correlation with export performance (stylized fact 4).

Such an intricate dynamics requires a broader look at the evolution of competitive advantage under the conditions of disequilibria. To avoid confusion, in the following section I refer to competitive advantage at the micro-level (the firm) and to comparative advantage at the mezo-level (sector) and macro-level (economy as a whole).

11.3 Distortion-induced Comparative Advantage: A Model of the Evolution of Competitive Advantage

In principle, the country's endowments (stocks of human and fixed capital and natural resources) are the most important determinants of its aggregate trade pattern, but at a more disaggregate level the link between economic fundamentals and dynamics of trade is quite intricate. Expansion of export of a manufactured good or group of products involves the process of learning-by-doing, which necessarily requires a substantial investment in fixed assets and human capital of the firm. The effort is a risky venture

and prone to failure: sometimes whole industrial sectors that were deemed promising fail to emerge as sustained exporters.[7] A number of learning mechanisms have spontaneously developed to avoid such failures or ameliorate their consequences. The local market can serve as a training ground for export expansion, thus import protection may act as export promotion (Krugman, 1984). Since the trial-and-error process of learning to export is difficult to codify and transmit, expansion of manufacturing exports often comes through multinationals by means of the internal transfer of expertise.[8] In addition, in diversified firms there can be economies of scope in which the export of one product facilitates the export of another. Accumulation of export-oriented assets proceeds incrementally, and there is significant interaction between investment in organizational capabilities to export and investment in product development. A basic observation that export development is a learning process has been captured by the concept of dynamic comparative advantages, which encompasses the following features:

- Certain well-defined market fundamentals (static comparative advantages) convey opportunity costs for every agent involved in trade and outline a trend of its expansion.
- Evolution of market fundamentals requires learning-by-doing, which involves substantial investment.
- Since such learning proceeds tacitly and incrementally, the development of commercially viable products is rare. There is a balance between a firm's engineering and organizational capabilities, and, hence, given a firm's inputs, one can deduce its exports (or output in general).

The concept of dynamic comparative advantages is not particularly relevant for current Russian conditions. First, domestic price distortions still abound. In addition, there is price differentiation because of market segmentation. The difference between price distortion (which can be corrected by the government) and price differentiation (which cannot) is quite important for the evolution of trade.[9] Second, most learning-to-export mechanisms are unavailable. Internal demand for investment output is severely depressed and, thus, is not a training ground for exports. Due to uncertainty, investment commitments of multinationals are negligible. Investments, in general, have come to a halt; thus, there is little opportunity for learning-by-doing. Third, since many enterprises face the challenge of a complete change in the output mix, learning is hardly incremental. Organizational capabilities, for instance, have to be acquired from scratch. In such a disequilibrium, the difference between static and dynamic comparative advantages becomes

blurred, and one can think of a process of simultaneous discovery and modification of actual comparative advantages.

The following section describes the evolution of comparative advantage (*Table 11.2*). The terms "competitive" and "comparative" advantage are used as synonyms: the former referring to the advantage at microeconomic level (the firm) and the latter describing the advantage at macroeconomic level (the nation).

11.3.1 Distortion-induced competitive advantage: Inertial export phase

Due to domestic price distortions in the past a number of sectors of the Russian economy had comparative advantages over foreign competitors. As a rule, exporters of this type have marginal exports, and exports are the means to survive and gain extra revenue to replenish working capital. With respect to manufacturing exports, contacts with foreign partners were established by central authorities. Over time these contacts disappeared as the initial contracts expired. With domestic prices rapidly approaching world prices and inertia from the planned economy disappearing, marginal manufacturing exports are no longer as profitable as they were in early 1992.

11.3.2 Fragile comparative advantages: Infant export phase

High inflation and economic uncertainty discourage investments to maintain the achieved level of competitiveness. With the distorted sources of competitive advantages gone, new exporters have had to invest a substantial amount of their energy and creativity to discover other sources of competitive advantages, the most important of which are the following:

- Advantages derived from "underpriced" human capital. Rudimentary labor market hinders mobility of human capital. Wage differentials between engineers of comparable productivity working at a foreign company in Moscow and at a plant outside metropolitan areas may reach a factor of 20 to 1. Since investments into fixed assets are negligible, it is human capital that counts as the most important source of competitive advantage.
- Financially derived competitive advantages. Finance is a major constraint in restructuring an enterprise. Many managers (including the manager of the Voronezh plant) are able to receive funds at a below-market interest rate directly from the consumers of their output or from banks on the basis of the reputation of the manager of the enterprise.

Table 11.2. Evolution of comparative advantages in the post-socialist transition: the Russian case.

	Type of economy	Source of comparative advantages	Criteria for selection of foreign partners and export products	Firm's strategy to enter foreign market	Pattern of investment to enhance competitive position	Dynamics of exporters	Examples
Phase 1 Inertial export: Distortion-induced comparative advantages.	Economy with significant price distortions.	Distorted prices. Subsidies from government. Grossly undervalued national currency. Underpriced key inputs.	Inertial export. Implementation of contracts concluded in the command economy.	No export strategy. Export is a means of survival. Export revenues are channeled to replenish working capital.	No investment.	Marginal exporters.	Exports are rapidly falling. Exports of cars, metal-intensive machine tools and machinery, energy-intensive products (e.g., oil-processing products).
Phase 2 Infant export: Fragile comparative advantages.	Economy with significant price differentiation because of segmented and rudimentary markets (in particular factor markets). Long-term finance is largely unavailable.	Advantages based on price differentiation. "Underpriced" inputs (skilled labor, human capital, commercial R&D) inherited from the command economy.	Firm is a newcomer to export activity or a particular export line.	Aiming at subcontracting or final products to undemanding markets. "Windfall gains" and "working horses" (*Table 11.1*) are prevalent in the export mix. Export strategy is to win loyalty of foreign partner.	Investment mainly in organizational capabilities (such as marketing). Investment in fixed assets is minimal.	Infant exporters. Exports are gradually increasing.	Output shipped on conditions of subcontracting with Western firms (e.g., electrical machinery).

Bifurcation phase: Conditional comparative advantages.	Relatively well-developed markets. Financial markets are segmented, yet long-term financing is available.	Skilled labor. Advanced managerial capabilities. Engineering know-how.	Selection of foreign partner on the basis of firm's reputation gained at previous stage.	Long-term relationships implying a commitment from foreign partner to become part of global-sourcing pattern. Strategy to enter a "strategic group" within an industry.	Substantial investment in organizational capabilities and fixed assets.	Maturing exporters. Export is only starting to emerge.	Baltyiski'i zavod: Shipbuilding. Voronezhsk'i mechanichesky zavod: Subcontracting for sophisticated oil equipment with American firms.
An optimistic equilibrium: Human- and capital-intensive exports. Kaleidoscopic comparative advantages.	Economy characterized by imperfections in product (steep learning curve, scale economies) rather than factor markets.	R&D-based comparative advantages.	Orientation to technological rents: Markets with steep learning curve and high entry barriers.	Strategy to compete rather than collaborate with foreign firms within the relevant "strategic group."	Aggressive investment in product and process development.	"Aggressive monopoly" (Hirschman, 1970) exporters.	Several medium-sized Russian firms are preparing to become exporters in certain narrow market segments (e.g., optic-electronic equipment for educational purposes).

Given that interest on commercial loans often account for up to 5–8% of the cost of the product, such cost advantages can be considerable. Again, financially derived competitive advantages are not a matter of distortions: the low interest rate in question is the equilibrium investment rate. It is not subsidized by the government, and it is low because the risk of default with loans from selected enterprises is believed to be low.

- Advantages derived from exceptional organizational capabilities. There appears to be a close correlation between the ability to export and the managerial ability to circumvent (and sometimes to take advantage of) the weakness of key markets. Successful exporters invest aggressively in efforts to find foreign customers and to service and market their products. Although to a lesser extent than in the case of engineering human capital, managerial talent also appears to be underpriced. We found cases in which entrepreneurial managers were invited to work in Western companies and subsequently enterprise performance deteriorated.

These competitive advantages will become less significant because the development of market infrastructure will enhance the mobility of human factors of production. Let me emphasize that in Russia the phase of fragile competitive advantages appears to be empirically significant precisely because firms have started to export manufactured goods (mainly on the basis of subcontracting) with small (by the standards of developing countries) investments. The investment of managerial effort in organizational capabilities, in contrast, appears to be quite sizable.

11.3.3 Conditional comparative advantages: Bifurcation phase

At this stage, unlike the previous one, long-term finance becomes available, making it possible to invest not only in organizational capabilities but also in fixed assets. It is in this stage that the discovery of firm-level competitive advantages would occur. For instance, while the Vyborg example currently follows a subcontracting strategy, the initial comparative advantage is based on certain types of optic-electronic equipment. The manager still tries to prevent irreversible loss of relevant human capital. When long-term borrowing is available, experiences with markets abroad gained, and experience and reputation of a reliable partner established, the enterprise may be able to form a strategic alliance with a producer in the West to return to its initial specialization.

One can introduce the notion of conditional competitive advantages that emphasize the ability of economic agents to simultaneously retain initial endowments (primarily of human capital) when the economic environment is not conducive for such retention and to acquire intangible assets such as reputation, foreign supplier-customer networks, and organizational exporting capability to match (with the emergence of a market for long-term funds) newly acquired assets with the initial (and at least partly preserved) competitive advantages. In some ways this stage of evolution of Russian comparative advantage is similar to the first stage defined by strong inertia from the years of the planned economy: access to capital at this stage crucially depends on the firm's ability to learn and restructure in the previous stage (path dependency). Yet only at this stage does the firm have an opportunity to discover through investment activity its "true" competitive advantages (discontinuity). The blend of path dependency and discontinuity is a peculiar feature of conditional advantage. The notion of conditional comparative advantage of the economies in transition encompasses the following features:

- There is a large gap between the firm's potential output and export (a situation when its current assets are matched with adequate organizational capability and complementary investment) and its actual performance.
- Managerial strategy to adjust and export invariably involves the firm's downsizing and simplification of output.
- Adjustment and learning are non-marginal. There are a number of substantial changes of output (export) mix. For instance, these changes occur first during the fragile competitive advantage stage when the firm starts to export, and then when retained profit and/or access to outside capital become significant enough to initiate investment.

Sequential unfolding of inertial (distortion-induced advantages), infant (fragile advantages), and bifurcation (conditional advantages) stages of evolution creates a nonlinear system with a strong path dependency and multiple equilibrium configuration of comparative advantages. The bifurcation stage provides an opportunity to invest and thus discover one's competitive advantages through learning-by-doing. Yet the range of options still open at this stage depends on the extent of the deterioration of R&D and human-capital capabilities: the longer the infant stage with rudimentary investment, the smaller this range of options. Appendix 2 describes a simple model illustrating multiple paths of a firm undergoing export-oriented restructuring.

For Russia a stage of kaleidoscopic comparative advantage (the last row of *Table 11.2*) is still hypothetical and – looking at the current adjustment –

an unlikely one.[10] Yet given Russia's factor endowments in 1990–1991 (human capital, civilian R&D), the comparative advantage stage should have occurred by now. The transformation to reach the potential exports frontier is going to be complicated, and often it is assumed (perhaps under the influence of the doctrine of dynamic comparative advantage) that the Russian government has a major role to play in enhancing the country's comparative advantage. In the next section certain reasons are given for why this is not quite the case.

11.4 Government Policies to Increase Manufacturing Exports

Conditional comparative advantages are not structured along sectoral lines: sectoral pattern of comparative advantage is revealed through firm-level learning-by-doing only at the end of the bifurcation stage. A similar conclusion has been reached by other observers in the field (Radosevic, 1993). From this one may reason that the object of government policy should be making forays at various export possibilities rather than specific sectors. The problem, however, is that in the former socialist economies "enterprise" was hardly a meaningful concept. In virtually every post-socialist economy that has undergone dramatic change in industrial structure, the boundaries of the firm are fuzzy. The issue of government policy to promote exports is thus intimately linked to emerging industrial structure.

In any industrializing country with thin financial markets and a weak and segmented government, the basic feature of the industrial structure is the diversified business group. In particular, manufacturing exports have been flourishing only within economic groups. Such groups have started to emerge in Russia (Kuznetsov, 1994). The experience in Latin America is most relevant for Russia; two contrasting opinions have been offered of why company groups are prevalent in this region. The first (most vividly expressed by Leff, 1976) asserts that company groups emerge in response to market failure, in particular because of capital market inadequacy and the absence of the market for risk. "Internal" capital market evolving within a company group substitutes for largely nonexistent external capital markets. In this view the growth of company groups is a positive development. The contrasting view claims, however, that company groups flourish mainly because (if only due to their size) they are better positioned to extract rents from the state. In fact, they "capture" the state, making both macroeconomic stabilization and implementation of a coherent industrial policy virtually

impossible. Due to the recent inflow of capital and the massive opening of Latin American economies neither argument is currently particularly relevant. Yet, *grupos economicos* are alive and well. Furthermore, with respect to Argentina, Gerchunoff and Canovas (1993) provide evidence that, as the result of privatization, the industrial structure became more concentrated. The long-run rationale in the persistence of economic groups can be found in diversification of risks. Due to diversification of risks within economic groups, Latin America is ever-more attractive to foreign investors. One can see the similar rationale for supporting the process of a group's creation in Russia.

The problem is that we do not have enough evidence to judge in which direction the Russian group's formation will go: in the direction of rent-seeking (Latin America) or export expansion (Southeast Asia). Russian policy debates favor direct state intervention into business group creation: with undue optimism the Korean scenario is assumed. To enhance Russia's conditional comparative advantages one may recommend a neutral policy stance (*Table 11.3*). On the one hand, one should abandon restrictions on cross-ownership of shares and interlinkages of real and financial assets, thus facilitating spontaneous emergence of economic groups. On the other, the state should abstain from any intervention in the process of their creation.

An unusual fluidity of Russian industrial structure that may still evolve into a number of equilibrium institutional configurations (Kuznetsov, 1994) provides an additional perspective on the notion of conditional comparative advantages. The equilibrium configuration is crucially dependent on the dynamics of the emerging industrial structure: concentrated industrial structure consisting of a few export-oriented economic groups would produce an outcome different from groups that focus on import-substitution; in turn smaller-scale industry will produce a different trade pattern from the trade pattern produced in a concentrated economy. Thus one can think of coevolution of industrial structure and conditional comparative advantage.

Given the extremely limited administrative capabilities of the Russian government, one must limit the scope of its intervention to horizontal industrial policy with particular emphasis on the provision of long-term finance to successful firms. It is to be expected, however, that even if institutions such as development banks are free from political pressures, they are expected to neglect financing start-up private firms (this problem was even evident in the USA with all the sophistication of its capital market) and medium-sized firms. A major problem of Russian industry is that a large share of it needs transitional subsidies or protection on its way to closure because it cannot compete with imports. If, when trying to minimize domestic distortions

Table 11.3. Government policy to enhance static, dynamic, and conditional comparative advantages.

Comparative advantage	Static	Dynamic	Conditional
Organizational ability to export.	Already existing.	Evolves gradually.	Created from scratch.
Learning and capabilities accumulation.	Minimal.	Incremental upgrading of capabilities.	Significant unlearning and downsizing involved.
Structure of comparative advantage.	Structured along factors of production (Heckscher–Ohlin model).	Structured along product market (sectors). Certain sectors are strategic. They generate technological rent from steep learning curve and scale economies.	Structured along particularly energetic and motivated firms which through exports eventually discover strategic sectors.
Industrial structure.	Does not change.	With the increase of exports, capabilities structure changes incrementally.	Industrial structure is fluid. There is coevolution of industrial structure and comparative advantages. Equilibrium industrial structure and equilibrium configuration of comparative advantage are conditional on each other.
Focus of government policy.	Corrects imperfections of factor markets. Horizontal industrial policy. Strong antitrust policies.	Focus on product markets. Assistance to strategic sectors.	Strong horizontal industrial policy. Possible role to play in formation of economic groups that would have an internal capital market.

one would respond to this challenge by providing subsidies, then financial crowding-out is likely. Funds would be channeled to stagnating rather than growing firms. Instead, one may introduce modest (30–40%) effective protection tariffs, providing a clear signal that over a three- to five-year span these tariffs would be phased out.

11.5 Conclusion

On the basis of the stylized facts of Russian manufactured exports, this chapter has outlined a simple descriptive model of the evolution of Russian competitive advantages. The coevolution of rapidly changing industrial structure and conditional comparative advantage can result in several equilibrium configurations of the industrial structure and the country's comparative advantages. Further research must discern trends of evolution of emerging diversified economic groups and their impact on firm-level export strategies.

Notes

[1] The official data (Goskomstat) indicate a 16% decline in machinery output. However, the official data do take into account military-related output, which is included in export data; if the military component is included, output decline is 23% (Schukhgalter, 1994). The data controversies are even more profound. For instance, experts of the Ministry of Foreign Economic Relations claim that exports of civilian machinery increased by 14% over the first half of 1992 to the first half of 1993. They assert that discrepancies with official data arise because of massive underreporting of export revenues: under-invoicing is believed to be widespread. This explanation is quite plausible given that a substantial share of trade is performed via barter.

[2] Enterprise-level export strategies were explored within a larger research project, "Russian Defense Industry Transformation and Civilian Export Performance," funded by the MacArthur Foundation. As part of the project, questionnaires were distributed to approximately 50 enterprises. Some of the questions in the questionnaire on export performance are given in Appendix 1. More interesting enterprises (for instance, those that experienced particularly large demand shock or were successful in making an adjustment) were selected for a more detailed case study.

[3] For detailed evidence see Kuznetsov (1994).

[4] For example, R&D on microscopes and other optic-electronic equipment that was performed before 1992 is widely used by Russian enterprises to penetrate Western markets.

[5] The gist of the problem is that only variable costs of doing business with a foreign partner are lower compared with a domestic counterpart. The fixed cost components, which arises because of both costs to identify a suitable partner and, more importantly, investment of managerial time to acquire relevant business routines, are quite significant. The interrelation of export-oriented (increasing returns) and domestically oriented (constant returns) transaction technologies are taken up later in this chapter. At this point it is useful to make a comparison with low-level equilibrium traps studied in the early development theory (for a useful summary and modern exposition, see Krugman, 1993). Only with increasing returns of export-oriented transaction technology may the economy become locked in inward-oriented development, even though export orientation is Pareto-superior.

[6] The idea that one should be looking for turnaround specialists rather than conventional managers in the process of post-socialist privatization was put forward by Tirole (1992) and Gelb (1992).

[7] The effort to expand shipbuilding exports in South Korea is an example.

[8] An indirect indicator of this process is the rapid growth of foreign direct investment (FDI). Between 1983 and 1989, FDI by OECD countries grew at an average annual rate of 31.4%, compared to only 11.9% for their gross fixed capital formation and 11.0% for trade (OECD, 1992, p. 213). The rapid growth of FDI inside the OECD has included an acceleration of cross-border mergers (OECD, 1992, pp. 215–216; cited in Dahlman, 1993, p. 3).

[9] The distinction between policy-induced price distortions and price dispersion emerging from underdeveloped organizational framework was first made in the development economics literature (Myint, 1971).

[10] At this stage, a country becomes so involved in the global pattern of trade in R&D-intensive output that a peculiar situation occurs, "where one day I have comparative advantage in X and you in Y, and tomorrow it may be the other way around, and then back again: a sort of musical chairs" (Bhagwati, 1994).

Appendix 1: Questionnaire on enterprise export performance

1. What is the volume of exports (in dollars) of civilian and military output since 1990?
2. What are the shares of civilian and military exports in the total output?
3. What civilian products is the enterprise exporting?
4. How does the enterprise search for export contract? Does the enterprise rely on export intermediaries either in Russia or abroad? Does it have its own export service department? If yes, for how long?
5. To which agents abroad is the output exported: retailers, importers/ wholesalers, manufacturers/producers?
6. Has any civilian output previously exported ceased to be exported. If so, why (e.g., disintegration of technological chains; increase in the costs of labor and energy)?

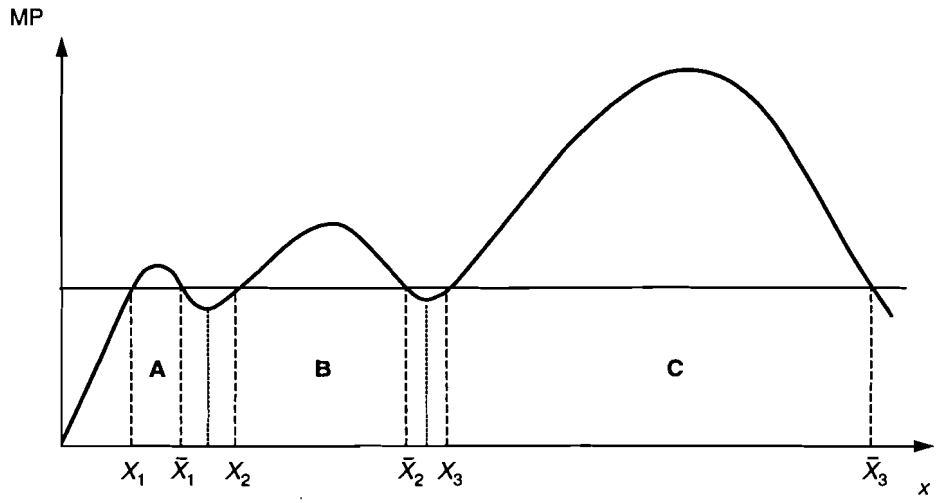
7. Commitments of foreign partners. Have foreign partners made any investment in the enterprise? Have they leased any equipment? Do they grant or arrange trade credits? What are the main obstacles in cooperation with foreign partners?
8. Certification of exports. How much time does it take to certify exports? Is your (potential) consumer helpful in facilitating the certification process?
9. What is the director's assessment of the main competitive advantages of the enterprise? What is the assessment of outside experts?
10. What are the main factors impeding the increase of civilian export at the enterprise?

Appendix 2: Accumulation of intangible capital in the fragile comparative advantage phase

Imagine two production units with the same fixed capital and technology that manufacture ball bearings. One unit is export-oriented, and it is located in a small West European country. The other unit is located within a large defense-oriented enterprise in Russia that used to import equipment for manufacturing ball bearings from the West. Mental exercises of this sort are often used to illustrate Liebenstein's concept of X-inefficiency: deviation from a production possibility frontier due to non-maximizing behavior of economic agents. In the following, I outline a model of accumulation of relevant intangible capital in the Russian production unit that allows it to approach the export possibility frontier exemplified by the Western firm.

Assume that the Russian defense-oriented plant, within which the ball bearings unit is located, faces a dramatic slump in effective demand for its traditional output: military hardware and capital goods for domestic industry. Due to scale economies, the plant is unprofitable with the current level of output: it receives transitional subsidies in the expectation that either state purchases of the military hardware or capital goods demand would increase to make the firm profitable again. Before resorting to a change in output mix the manager waits to see whether the demand for final goods would indeed pick up. He then decides to abandon the current production line, focusing instead on certain pockets of excellence within the enterprise that, like our ball-bearing production unit, have relatively universal high-quality equipment that, with a small adjustment cost, can be used for export-oriented subcontracting. I call such pockets of excellence the growth poles of the enterprise.

What is the production function of the enterprise during its transition from domestic final goods manufacturing to export-oriented subcontracting? I view such a transition as reaccumulation of capital: as the managerial team learns how to operate in a market environment and acquires organizational routines to promote exports, the relevant growth poles within the enterprise are discovered and turned to export. Expansion of commercially viable, export-oriented growth poles is the reaccumulation of capital because, given my assumption, it requires quite small



Stage A Immediate learning: Distortion-induced competitive advantage.
Stage B Organizational learning: Enterprise reshuffle and reputation accumulation.
Stage C Learning to innovate: Equipment and R&D investment.

Figure 11A.1. Marginal product (MP) of a firm in the process of export-oriented turnaround.

fixed capital investment and very large investment of intangible capital, mainly new skills and routines. This situation is typical in Russian enterprises. Judging from evidence from these enterprises, the reaccumulation of capital is subject to a number of scale economies.

Let me define a production function linking capital x (including human capital) of the growth poles and their value added, $g(x)$. One can register an increase of marginal product of capital as the result of immediate learning following the demand and institutional shocks (*Figure 11A.1*). Immediate short-run response to the shock would include learning to sell the output of the growth poles (ball bearings in this example) in new sporadically discovered markets. Learning manifests itself in the improvement of the terms of trade of the enterprise with the outside world and thus displays increasing returns to scale. Upon reaching a certain threshold, this initial learning is unavoidably subject to decreasing returns: the highly inefficient enterprise structure with many cross-subsidization acts as a major constraint. The rise of the marginal product starts again with progress in enterprise restructuring and downsizing and with aggressive investment in the acquisition of a good reputation and other forms of organizational learning. This second stage of learning terminates when the growth pole approaches the productivity level comparable with that in a Western firm: at this stage a major constraint is the lack of efficient equipment rather than the ability to use it. Accumulation of fixed assets through investment into new machinery starts at the third stage of enterprise restructuring: increasing returns at this stage are quite likely because of a steep tacit learning

curve. Reaccumulation of capital of the enterprise, as well as changing its output mix completely, then proceeds as a *sequential unfolding of imbalances* (between its fixed assets and organizational ability to use it, between the structure of the enterprise and the dynamism of growth poles, between available fixed assets and derived demand for high-quality assets) that is manifested in sequential increasing marginal returns.

The reaccumulation of the enterprise capital can also be interpreted in the following way. Assume that the scrap value of the capital stock is x_0. Alternatively, x_0 is the value of liquid capital (real estate, inventories, and so on). The management can increase the value of capital by investing in capital-stock restructuring or in managerial learning on ways to commercialize R&D, operate in market conditions, or start and successfully maintain exports. The value of x then is *the revealed value of the composite capital stock.* This is revealed as the result of technological and organizational choices. An increase in x does not necessarily imply physical additions to tangible capital stock; in certain cases its appreciation is the result of its newly discovered application. It is a *composite* capital stock because it also includes managerial routines and reputation. Assume that the composite stock x is freely shiftable between organizational learning $y_1 = g_1(x - x_1)$, where y_1 is managerial input and manufacturing of the output with the production function $g_2(x_1, y_1)$. Since capital stock is freely shiftable between production and organizational learning, there is a composite production function

$$g(x) = \max_{x_1} g_2 [x_1, g_1(x - x_1)] \quad . \tag{11A.1}$$

If only due to reputation effects, the organizational learning function g_1 is likely to display increasing returns. Then, even if production function g_2 is neoclassical, the composite production function $g(x)$ is convexo-concave.

The dynamic theory of the firm normally proceeds from the assumption of the maximization of the present value of the firm given market fundamentals of perfect competition: wages and rental rate of capital (see, for example, Blanchard and Fischer, 1989, pp. 48–52). The firm undergoing restructuring and downsizing does not conform to these assumptions. First, neither wage rate nor rental rate of capital is determined by the market. The labor market is rudimentary, and thus there is significant wage dispersion. The same argument is even more relevant with respect to the nascent capital market. In addition, restructuring implies that the firm for a substantial time has significant labor redundancies: marginal product of labor is zero, yet wages are greater than zero. Both observations suggest strong market imperfections which obscure conventional market fundamentals. Second, and more importantly, the manager in the model is a turnaround specialist rather than a conventional manager. His objective is to retain the most valuable parts of the firm – its growth poles – and to create conditions for their expansion. The manager tries to retain the most skilled human capital and lay off the remaining redundant labor. Assume that labor, l, receives remuneration, $c(l)$, based on its productivity

$$c = \int_0^l c(l)dl \quad . \tag{11A.2}$$

A decrease in c would result in a decrease in employment: labor with the lowest productivity would be the first to go. One can think of utility function $u(c)$ over the aggregate wage (consumption) fund c. The larger this consumption fund, the larger the employment with low productivity (redundant employment): marginal utility du/dc decreases. Maximization of integral utility $u(c)$ is then

$$\int_0^{+\infty} \exp(-\rho t)u(c)\,dt \rightarrow \max \ , \tag{11A.3}$$

reflected in the simultaneous objective to retain the valuable core of the human capital whose marginal utility for the firm is high and to lay off redundant labor whose marginal utility for the firm is low. The variable ρ is a discount coefficient reflecting the turnaround team's planning horizon. If ρ is small, the team's impatience is low and its planning horizon is large.

The value added $g(x)$ is divided between capital accumulation $\dot{x}$ and consumption c of the turnaround team and labor that needs to be retained. In other words, I assume that the firm cannot borrow on the capital market and makes investment from retained earning. Then its budget constraint is

$$c + \dot{x} = g(x) \ , \tag{11A.4}$$

where c is income of management and firm's employees that is not invested. The initial condition is

$$x(0) = x_0 \ , \tag{11A.5}$$

where x_0 is the scrap value of capital. Thus a turnaround problem of the individual firm to enhance expansion of its growth poles on a highly imperfect market is formally similar to the command economy problem of allocating funds between investment and saving. We specifically focus on the case when the composite production function g is convexo-concave (*Figure 11A.1*). The problem (11A.2–11A.5) is well researched in the literature (Brock and Malliaris, 1989; Dechert and Nishimura, 1983; Skiba, 1978). Its Euler equation and material balance equation are given by

$$\begin{cases} \dot{\rho} = [\rho - g(x)] \\ \dot{x} = g(x) - c(\rho) \ . \end{cases} \tag{11A.6}$$

The main result, which is illustrated in *Figure 11A.2*, is the existence of at least two optimal trajectories. The firm grows along the first trajectory I and eats up its initial endowment x_0 along the second trajectory II. It can be shown that under certain undemanding technical conditions the following statements are true:

Statement 1. There is a cutoff point x_s such that $X_1 < x_s < \overline{X}_1$ (*Figures 11A.1* and *11A.2*), such that trajectory II is optimal for $x_0 < x_s$ and trajectory I is optimal for $x_0 > x_s$. The initial condition x_0 matters. The following statement indicates that the rate of time preference, ρ, and the geometry of function, $g(x)$ also matters.

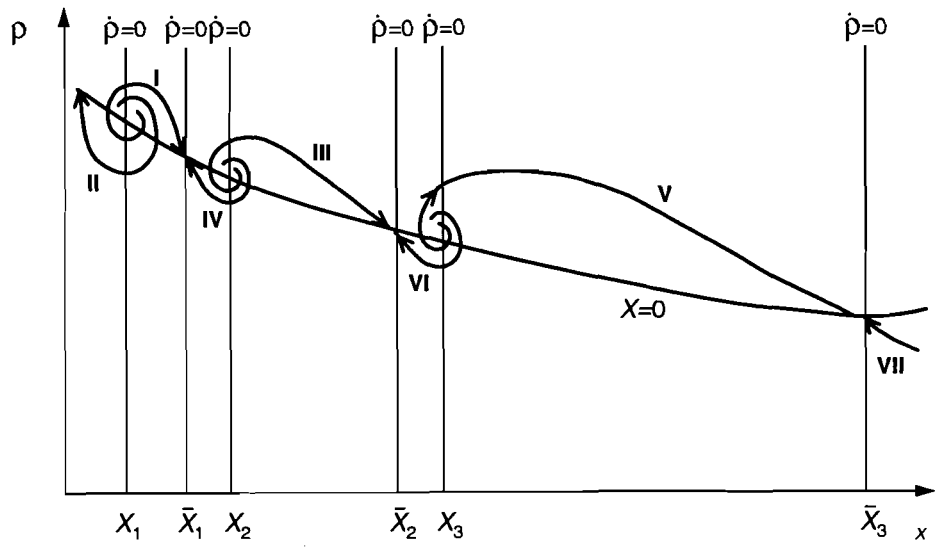


Figure 11A.2. Multiple optimal paths of a firm in a turnaround situation.

Statement 2. If $x_0 >= x_c$, where x_c is the smallest positive solution of $g(x) = \rho x$, then trajectory I is optimal.

Depending upon the initial level of capital x_0, the planning horizon of the turnaround team, and speed of learning the firm can eat up its initial capital (trajectory II); it can remain a marginal exporter (lock-in: trajectories I and IV); it can evolve into "fragile" exporter with substantial organizational learning but little R&D investment (trajectories III and VI); finally it can become a sustained success with substantial equipment and R&D investment (trajectories V and VII). Not all of the trajectories necessarily exist.

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Chapter 12

Competitiveness of Russian Commodities and Industrial Products in Foreign and Domestic Markets

Matthias Lücke

This paper discusses the policy implications of recent changes in the commodity composition and regional structure of Russian foreign trade. Chapters 1–3 of this volume have shown that Russian exports – except commodities exported to industrialized countries – have declined sharply over the past two years. Hence, the share of raw materials in Russian exports, which had always been large, has increased even further.

This development gives rise to concern because, in recent economic history, very few countries have maintained a high standard of living or sustained high growth rates of per capita income on the basis of exporting raw materials alone.[1] The main reason is that world market prices of commodities have not only been highly volatile, but have also tended to decline relative to the prices of industrial goods in the long run (Grilli and Yang, 1988). Furthermore, the prices of those industrial goods of which low-income countries were net exporters have also declined relative to the prices of industrial goods exported predominantly by high-income countries (Sakar and Singer, 1991; Lücke, 1993). The presumption is therefore plausible that, if per capita income in Russia is to grow, it will have to be associated with a

diversification of exports away from commodities and into manufactures of increasing sophistication.[2]

Therefore, this paper inquires into the causes of the present low level of manufactured exports from Russia. The paper starts by clarifying several conceptual issues that pertain to the subsequent analysis (Section 12.1). It then discusses Russia's pattern of comparative advantage and its possible future evolution (Section 12.2). Subsequently the determinants of the recent export performance of Russian commodities and manufactures in different markets are analyzed (Section 12.3). The final section points at some policy conclusions (Section 12.4).

12.1 Conceptual Issues: Comparative Versus Competitive Advantage

Empirical analyses of the specialization patterns of countries at different levels of economic development in international trade are mostly based on neoclassical (Heckscher–Ohlin) trade theory. One implication of this theory is that countries export, through their trade, those factors of production with which they are relatively well endowed relative to the rest of the world. In practical work, this is often taken to mean that countries tend to be net exporters of goods whose production uses their abundant factors intensively. Although in theory this interpretation is only warranted under certain restrictive assumptions, this hypothesis is usually confirmed in empirical work.[3] In this sense, I use the term "comparative advantage" to refer to the link between a country's pattern of specialization in international trade and its resource endowment relative to the rest of the world.

For the sake of analytical clarity, I distinguish "competitive" from comparative advantage. Competitive advantage is defined as the extent to which a country actually specializes in exports of a particular good.[4] Competitive advantage in a particular industry may result either from *comparative* advantage or from distortions due to various policy interventions that make exports of a particular product category more attractive than they would be if market signals prevailed. Such interventions include, *inter alia*, the foreign trade regime, factor, and product market policies.[5]

While this concept of competitive advantage relates to industries relative to other industries, there is also the notion of "national competitiveness," or rather of the international competitiveness of a country.[6] This notion is loosely related to the concept of locational or inter-jurisdictional competition. The latter states that locations, which are characterized by their

immobile factors of production, compete among themselves by increasing their attractiveness for interregionally mobile inputs. Since the marginal productivity of immobile inputs rises with the amount of mobile inputs available, highly competitive countries will be rich countries. In the case of technologically advanced countries, the term may also refer specifically to a country's ability to provide an environment conducive to the production of technologically sophisticated products, thereby allowing domestic firms to capture monopoly rents in international markets (Schumpeter goods).

While the concept of national competitiveness remains somewhat vague, it does highlight the fact that production for the world market involves more than physical manufacture on the basis of a given production function. Exports depend on the availability of complementary factors of production, which include management skills, transport and communications, and various social institutions that help to minimize transaction costs – for instance, a stable monetary system and a functioning legal system. Some complementary factors can only be provided domestically by the state, for all practical purposes. Other factors, such as management skills relating to production planning, quality control, product design, and marketing, may be imported. Experience from developing countries shows that many industries started exporting with extensive help in these areas from foreign customers. As local firms accumulated experience, they increasingly took over such activities themselves and thereby raised local value added (Wortzel and Wortzel, 1981; Lücke, 1990). Kuznetsov in Chapter 11 of this volume deals more extensively with such factors in the Russian context.

The above determinants of countries' patterns of specialization in international trade (competitive advantage) relate to the supply side. Empirical observations show that countries at an intermediate level of economic development frequently export capital-intensive manufactures to poorer countries and labor-intensive manufactures to richer countries (Krueger, 1977). This finding cannot be explained by the standard comparative advantage arguments because factor endowments are always measured in relation to the rest of the world. It is plausible, however, in the presence of product differentiation in connection with similar demand patterns in middle- and low-income countries.

12.2 Present and Future Comparative Advantage

It seems reasonable to presume that Russia's present pattern of specialization in international trade (i.e., its competitive advantage under present

circumstances) is out of line with its comparative advantage. Relative to the rest of the world, Russia has a well-trained and diversified industrial work force, as well as a large number of highly qualified scientists and engineers in a variety of industries. It is unlikely that the existing physical-capital stock is completely obsolete even if relative input prices are fully adjusted to world market relations. Hence, one would expect exports of human- and capital-intensive products to play a much larger role once existing obstacles to exports to Western market economies are overcome.

This raises the question of whether it is possible to forecast Russia's future pattern of comparative and, by implication, competitive advantage. Russia will clearly continue to enjoy a comparative advantage in various natural resources. Beyond this, comparative advantage will depend on the formation of both human and physical capital. Incentives for capital formation will be affected crucially by progress in macroeconomic stabilization and economic transformation. A pessimistic scenario might assume continuing macroeconomic instability and uncertainty about future institutional arrangements. Under such circumstances, the existing physical-capital stock would fall into disarray as necessary investment to maintain capacity in working order would not be forthcoming. In many cases, highly qualified labor would leave low-paid jobs in the state sector to seek higher incomes in private economic activities. Over time, highly specialized human capital would be lost. As a result, *Kuwaitization* would progress further as long as the logistic base for raw material exports remained intact. This pessimistic scenario aptly describes the development over the past two years in Russia.

An optimistic scenario might proceed from the assumption of rapid macroeconomic stabilization early on and sustained progress in structural adjustment and institutional reform thereafter. Initially, the rentability of investment would probably be particularly high in natural-resource-related industries, where limited inflows of capital might release relatively large resource rents. As planning horizons lengthened, investments would increasingly be undertaken to open up export channels for those goods manufactured in Russia that are close to being internationally competitive. Such investment might be in marketing, product development, or logistics. A further step would be represented by investment in new production facilities and staff training. Ultimately, Russia might evolve as a substantial exporter of manufactures in addition to commodities.

It has been suggested that calculations of the domestic-resource costs of individual industries provide some guidance regarding the pattern of

comparative advantage of highly distorted economies. The domestic-resource-cost concept has been used as an instrument of social-cost benefit analysis in investment appraisals of developing countries where the (social) shadow prices of certain inputs differ from their market prices. In the context of economies in transition, the concept may be thought of more simply as a revaluation of production processes at world market prices. The classic article in the field with respect to the former Soviet Union is Seynik-Leygonie and Hughes (1992). The authors use input coefficients from the 1987 Soviet input–output table and world market prices to revalue intermediate inputs. Capital output coefficients are taken from developed countries.

This procedure demonstrates the possible explanatory value as well as the shortcomings of the domestic-resource-cost approach. If intermediate input coefficients are regarded as fixed, even in the presence of hardening budget constraints, the concept permits the identification of sectors with negative value added under world market prices. Even in this narrow interpretation, however, statistical problems intervene. The food-processing industry in former centrally planned economies is regularly identified as having negative value added (cf. Hughes and Hare, 1992), mainly because its inputs include agricultural produce lost in transport from the field to the factory. This is hardly an economically meaningful definition, however, and casts doubt on the appropriateness of using the available domestic-resource-cost calculations as a basis for decisions on economic policy. Problems of interpretation become even more difficult as labor and capital costs are included in the calculation.

In sum, any statement about Russia's future comparative advantage would be highly speculative. First, Russia's future human- and physical-capital stocks relative to the rest of the world depend on the domestic investment climate over the next few years, and therefore cannot be predicted reliably. Second, there is no firm basis in economic theory – in a world with many factors of production and an even larger number of goods – to predict which sectors would become particularly competitive even if factor endowments were known. This applies, *a fortiori*, in the presence of resource rents and non-traded goods where Dutch-disease-type problems may arise. Furthermore, it is far from clear whether complementary inputs required for successful exporting will be available. It may be stated, however, that any fundamental changes in Russia's pattern of specialization in international trade depend on substantial progress in the area of economic transformation, and are therefore likely to occur only in the medium to long run.

12.3 Export Performance in Different Markets

This section analyzes the determinants of the export performance of major commodity groups in different regional markets. During the cold war era, the geographic structure of trade was heavily distorted by politically motivated restrictions on both sides. Russian external trade was excessively concentrated on the republics of the Soviet Union (which constituted a single economic area) and the member countries of the Council for Mutual Economic Assistance (CMEA). The removal of political barriers has already led to a marked increase in trade with various Asian countries, particularly China. Trade with former East European CMEA members, by contrast, has fallen sharply as Russian firms lost their privileged market access (cf. Chapters 1–3 in this volume). In the following two subsections a closer look is taken at the determinants of the performance of commodity and manufactured exports, respectively.

12.3.1 Commodities

The geographic reorientation of trade has been particularly pronounced in the case of commodity exports, which comprise mainly energy materials. Raw petroleum output has fallen over the past few years, mainly due to the depletion of deposits and lack of investment. Natural gas output has stagnated since 1992. At the same time, Russian domestic prices for energy materials were maintained far below the world market level. This applied especially to natural gas, at about 10% of the international price. The underlying intention was to create incentives for substituting natural gas for relatively scarce, and more easily exportable oil. Domestic energy consumption therefore declined only moderately.[7] Prices in interstate trade rose considerably, but in many cases were still lower than world market prices in late 1993. Nevertheless, the deterioration in the terms of trade of the newly independent states (NIS) led to a sharp fall in their energy imports from Russia from 1992 to 1993. While this was compensated for by an increase in the volume of energy exports to the rest of the world, the value of the latter stagnated because of falling world market prices.

Russia's export revenues have not only been hit by declining prices over time. The unit values of many commodities exported by Russia (at any one point in time) have been lower than those of most other exporting countries. Such price differences suggest the presence of some product differentiation in terms of quality, reliability of delivery, availability of transport and communication channels, etc. Not being well-established suppliers, Russian firms

apparently had to "price themselves into" the international markets. Hence, there is probably some room for an increase in local value added by moving "up-market" even in commodities. Increases in export prices might also offset partially the impact of quantitative import restrictions, which Russia now faces in some non-energy commodities.

It seems likely that domestic demand for Russian commodities will remain low for some time to come. The Russian government has promised repeatedly to bring energy prices closer to world market levels, which would tend to reduce demand.[8] Domestic demand for intermediate goods such as steel and nonferrous metals depends on output in downstream industries; however, this output is unlikely to recover quickly. Demand for Russian commodity exports to the NIS should remain limited for similar reasons. Hence, commodity exports to hard currency markets are likely to remain strong, at least as long as plant maintenance does not require major investments.

12.3.2 Manufactures

Manufactured exports from Russia to hard-currency markets have always been limited (exceptions such as Lada cars notwithstanding; cf. *Table 12.1*). The main customers of Russian manufacturers were in the former Soviet Union and in the member countries of the CMEA. In the NIS, demand for Russian manufactures has been reduced over the past two years by the fall in aggregate income. It may be noted that, in part, this income decline was a result of the deterioration of these countries' terms of trade due to higher prices for energy imports from Russia. Since investment has fallen more sharply than consumption in the NIS, the reduction in demand has hit Russian producers of capital goods particularly hard. The former CMEA members have reoriented their foreign trade toward the West. Imports of capital goods from Russia have fallen sharply, presumably because pent-up demand for Western technology was satisfied on a priority basis.

Nevertheless, Russia's increasing foreign trade with Asian countries suggests that some economic restructuring has taken place over the past two years and, particularly, politically motivated barriers to trade have been reduced. It is therefore relevant to ask why "nontraditional" manufactured exports to hard-currency markets have remained so low, even though practically all industrial enterprises were allowed to engage in foreign trade from early 1992 onward. An analysis of incentives for exports (Kiselyov, 1993) shows that, first, Russian exchange rate policy was extremely unstable in 1992 and 1993. Surrender requirements for export revenues were changed several times, and involved highly overvalued exchange rates (compared with

Table 12.1. The composition of OECD imports from Eastern Europe by commodity categories, 1970–1991, in percent.

		SITC categories				
		0, 2–26, 3–35, 4, 56	26, 6–(62, 67, 68), 8–(87, 88)	1, 35, 53, 55, 62, 67, 68, 78	51, 52, 54, 54, 58, 59, 75, 76	57, 7–(75, 76, 78), 87, 88
		Resource-based	Labor-intensive	Physical capital-intensive	R&D-intensive: Easy to imitate	R&D-intensive: Difficult to imitate
Bulgaria	1970	51.8	12.3	23.5	5.4	6.3
	1980	50.4	13.2	19.3	7.7	8.7
	1988	38.7	18.2	20.3	12.2	8.4
	1991	35.0	23.1	23.6	5.5	12.1
Poland	1970	65.2	12.2	11.8	4.4	5.9
	1980	49.0	16.9	19.3	4.4	9.8
	1988	43.0	23.1	16.6	6.9	9.7
	1991	37.0	31.4	14.1	5.6	11.2
Romania	1970	59.1	16.9	13.8	5.0	4.5
	1980	50.7	29.3	9.7	3.3	6.6
	1988	36.6	37.1	17.3	4.1	4.7
	1991	20.9	52.3	13.5	3.2	9.3
CSFR	1970	30.5	26.4	21.2	5.6	15.1
	1980	35.7	27.9	15.7	8.2	11.5
	1988	30.3	30.1	17.0	11.3	10.5
	1991	20.2	34.8	19.9	6.5	17.3
Hungary	1970	53.0	20.1	14.6	5.4	5.8
	1980	38.2	27.6	14.0	9.5	9.6
	1988	37.8	26.8	13.4	11.4	9.8
	1991	33.4	30.7	10.5	8.2	16.5
USSR	1970	71.1	6.5	15.6	2.1	3.6
	1980	81.4	5.2	5.4	4.8	1.9
	1988	73.2	4.4	12.9	5.2	2.3
	1991	65.4	6.1	17.5	3.8	2.2
Asian NICs[a]	1970	30.5	50.1	6.8	5.0	5.5
	1980	22.7	46.0	5.3	10.4	14.3
	1988	11.0	43.2	6.4	20.0	18.0
	1991	10.0	43.9	6.9	19.3	18.7

[a]Hong Kong, Malaysia, South Korea, and Taiwan.

Sources: Heitger *et al.* (1992), Tables 18 and 19; *OECD-Trade by Commodities*, 1970, 1980; *Foreign Trade by Commodities*, 1988, Vol. 5; 1991, Vol. 5; author's calculations.

the prevailing market rates) over extended periods. Macroeconomic instability also led to substantial fluctuations in the real exchange rate.

Second, the cost of entering Western markets is relatively high for many Russian firms. Many marketing expenditures, such as the adaptation of products to different local requirements and setting up a sales force, represent sunk costs that can only be recovered over time. With planning horizons shortened by macroeconomic instability, many firms were understandably reluctant to embark on such investments. The transport and communications infrastructure was apparently in such a bad shape that there is still no evidence of significant processing activities on behalf of Western firms.

Remarkably, Russian exports to China include a substantial proportion of capital goods (Langhammer, 1993). This may be due in part to continued government involvement in trade between the two countries in the form of a barter agreement or to the existence of well-established supply channels. In this case, the cost of market entry into this market would be lower for the enterprises than it would be into Western markets. The experience of some newly industrializing countries also suggests that Russian capital goods may not be competitive in industrialized countries because the emphasis there is on quality, which includes attributes such as energy efficiency. Competitiveness may be greater, however, in low-income countries where price plays a more important role in determining competitiveness. Both considerations should apply, *a fortiori*, to the other newly independent states. Hence, Russian manufacturers can expect to remain in a dominant position in these markets, at least as long as concessionary credit from Western governments, which tends to be tied, *de facto*, to orders to Western firms, does not undermine their competitiveness in the NIS.

12.4 Policy Implications

In the public debate on economic policy in Russia the suggestion has been made to counter the trend toward *Kuwaitization* by creating and subsidizing industrial conglomerates that would build up internationally competitive production capacities and set up marketing channels (cf. Vincentz, 1993). Such a strategy would encounter all the well-known problems related to obtaining the necessary information to pick winners and to controlling subsidies to minimize rent-seeking behavior by economic agents. Our considerations also suggest that such a strategy would aim at symptoms rather than at the underlying causes of the low level of nontraditional manufactured exports. Enterprises will only invest voluntarily in product development and

marketing channels for export if there is sufficient macroeconomic stability to permit a reasonably long planning horizon and if the exchange rate policy is sufficiently predictable to ensure the profitability of exports. Hence, strategic industrial policy is not an adequate substitute for sound macroeconomic policy.

There may be some scope, however, for promotion of nontraditional exports without extending differential benefits to individual sectors. Such export promotion may take the form of explicit export subsidies, drawbacks on import duties on intermediate products, or favorable tax treatment of marketing expenditures abroad, to give only a few examples. Such measures may be justified economically if there are external effects of nontraditional exports (cf. Keesing, 1979). For example, exporters may gain information about market conditions and organizational or technological innovations that benefit not only the individual exporting firm itself. Investments in export marketing may also be difficult to internalize, for example, if newly trained staff are free to move to competing firms.

Such an approach, emphasizing macroeconomic stability and non-discriminating export promotion, would reflect the main lessons to be drawn from the experience of the newly industrializing East and Southeast Asian economies. Of course, some (but not all) of these countries also used measures targeted at particular sectors. Such subsidies, however, were always tied to strictly enforced performance standards. In the case of Russia, the tasks of impartially selecting sectors to support and then consistently enforcing performance standards would probably exceed the government's administrative capacity. It is, therefore, a rational strategy for the government to stick to basics, for example, ensuring macroeconomic stability (difficult enough in itself), rather than to engage in activities with high potential costs and uncertain benefits. With regard to creating a stable policy environment for foreign trade, the Russian government may enhance the credibility of its trade policy by making it binding under GATT rules in connection with Russia's pending application for GATT membership (Langhammer, 1994).

Notes

[1] Oil exporters in the Arabian peninsula and perhaps Australia are the more prominent exceptions to this rule. Their example is hardly applicable to Russia, however, since per capita resource rents in Russia are certainly smaller than theirs. On the other hand, of course, industrial development in many countries has been resource-based, in the sense that the first industrial sectors to develop had strong backward or forward linkages to resource extraction or agriculture.

[2] There has been extensive debate among development economists on whether trade should be looked upon as the engine or rather as a handmaiden of economic growth (cf. Bredesen and Strobel, 1991). It would be beyond the scope of this paper to take up this point in detail. It is sufficient to note that, either way, sustained economic growth is possible only in the presence of trade.

[3] It would be beyond the scope of this paper to go into the fine points of generalizing the traditional two-by-two-by-two model to a multi-country world with more goods than factors of production.

[4] Several empirical measures of competitive advantage are discussed in Ballance *et al.* (1987).

[5] In empirical work it is difficult to disentangle the influence of economic policies on the international competitiveness of industries from the role of "genuine" comparative advantage (as an example, cf. Lücke, 1990)

[6] Porter (1990) is a prominent example of an attempt to apply an essentially business-related concept to countries instead of corporations. The problems inherent in this approach have recently been discussed succinctly by Paul Krugman in several articles.

[7] This is likely to be true even if the available figures include some illegal exports.

[8] As long as domestic prices are far below export prices, this will constitute a strong incentive for smuggling commodities out of Russia to circumvent export controls.

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Part V

Russia and the International Capital Flows

Chapter 13

Russia's Actual and Potential Role in International Capital Flows

Michail Sarafanov

The financial and monetary standing of Russia in recent years has been one of the most important factors determining the development of the macroeconomic situation in the country. As a result, an analysis of the particularities of Russia's participation in the system of the international capital movement (including the problems of capital flight from Russia) is of great interest.

The statistics of Russia's balance of payments are at an early stage of development and in many respects are estimates. Nevertheless, over the past two years, the Central Bank of Russia and the Goskomstat of Russia have regularly published the official data on the balance of payments (*Table 13.1*). On the basis of these statistics we can discuss the problems of capital inflow–outflow for Russia.

The state of Russia's balance of payments in 1992–1993 presents the most complete picture of the foreign economic sector and of the problems that followed the opening of the economy. Two main difficulties are easily discernible. First, with a huge surplus of the trade balance and a positive balance on current accounts, Russia is not able to service its foreign debt. Second, the amount of errors and omissions markedly exceeds the volume of exports of goods and services.[1]

Table 13.1. Russia's balance of payments in 1992 and 1993, in billion dollars, at the end of the quarter.

	1992		1993			
	III	IV	I	II	III	IV
Current account	2.1	3.4	4.2	8.7	12.0	15.6
Trade balance	1.0	4.2	4.2	7.7	10.4	14.0
Exports, incl. gold, excl. swaps	28.3	41.1	8.1	18.4	33.7	43.0
Imports, incl. hum. and techn. aid	−27.3	−36.9	−3.9	−10.7	−23.3	−29.0
Transfers	1.6	3.0	0.1	1.4	2.9	3.5
Services	−0.4	−4.0	0.0	−0.2	−1.0	−1.5
Gains from investment (credits and deposits)	−0.1	0.2	−0.1	−0.2	−0.3	−0.4
Receipts (act.)	0.5	0.9	0.1	0.2	0.3	0.4
Payments (act.)	−0.6	−0.7	−0.2	−0.4	−0.6	−0.8
Capital account	5.0	5.4	−0.6	−0.6	−3.8	−5.4
Foreign medium- and long-term credits	8.1	11.4	1.3	2.4	2.2	2.8
Used (act.)	9.4	12.8	1.5	3.2	4.1	5.5
Amortization (act.)	−1.3	−1.4	−0.2	−0.8	−1.9	−2.7
Disbursement of medium- and long-term credits	0.6	0.8	0.2	0.3	0.4	0.5
Used (act.)	−0.3	−0.4	−0.1	−0.1	−0.1	−0.2
Amortization (act.)	0.9	1.2	0.3	0.4	0.5	0.7
Direct and portfolio investments	0.1	0.7	0.3	0.4	0.7	0.8
Other capital transactions	−1.4	−0.6	−0.6	−0.2	−0.8	−1.0
Short-term capital	−1.4	−4.2	−1.8	−3.5	−6.3	−8.5
Current and corr. accounts and deposits	−1.3	−4.1	−1.5	−2.4	−3.1	−3.5
Inflow of cash currency by resident bank	n.a.	n.a.	−0.3	−1.1	−3.1	−5.0
Other	−0.1	−0.1	0.0	0.0	−0.1	0.0
Official international reserves	−0.3	−0.8	−0.9	−2.3	−3.1	−4.0
Adjustments to international reserves[c]	0.3	0.5	0.7	2.2	2.3	2.5
Errors and omissions total	7.1	−8.5	−3.4	−8.0	−7.4	−8.7
Adjustments to export(a)	−1.2	–[a]	−0.2	−0.4	−0.4	−0.5
Adjustments to unequivalent barter(b)	−1.9	−2.0	−0.5	−0.5	−0.6	−0.6
Adjustments to trade balance(c)	−1.0	−1.8	−0.2	−1.9	–[b]	–[b]
Adjustments to services(d)	−0.3	−0.5	−0.4	−0.8	−1.2	−1.6
Adjustments to short-term capital(e)	−0.5	−0.7	−0.3	−0.6	−0.9	−1.2
Unexplained	−2.2	−3.5	−1.8	−3.8	−4.3	−4.8
Overall balance	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum						
Arrears		6.9				9.3
Deferral and rescheduling		7.1				19.7
Total		14.0				29.0
Exchange rate (ruble/dollar at the end of the period)	254.0	414.5	684.0	1,060.0	1,169.0	1,250.0

[a]Included in service item.

[b]Included in export and import item.

[c]Introduced to avoid double counting the assets of commercial banks that may be due to refund of part of official currency reserves on their accounts.

Adjustments: (a) reflects the particularities of recalculation of export sums for repayment of credits in transferable rubles; (b) takes into account an underestimation of prices for barter exports; (c) is the adjustment of exports and imports according to IMF estimation based on custom statistics in Russian counterparts in foreign trade; (d) includes services not taken into account for which money is transferred abroad; (e) is the increase of cash currency inflow by individuals.

13.1 Trade Balance and Debt Service

Given the stability of exports, the surplus in the trade balance appears to be the result of a sharp decrease of imports. When analyzing the causes of this decrease, we must avoid overestimating the influence of such factors as the unfavorable exchange rate for imports, the introduction of import tariffs, and the application of excise taxes and VAT to imports. These factors contributed slightly to the reduction of imports, mainly in the commercial sector in the first half of 1993, but in the second half of the year stabilization of the ruble exchange rate led to the sharp increase of the commercial imports – which thus offset the decline of the first six months. The main cause of the decline in imports was the reduction of so-called centralized critical imports due to the immense federal budget deficit and the insufficient means to continue subsidizing the import of foods, medicines, and raw materials at the 1992 level. Moreover, in 1992 more than one-third of imports was financed by external loans ($12.8 billion), and that led to the sharp increase of the Russian foreign debt. The maintenance of this situation in 1993, given the condition of the federal budget, was infeasible. Therefore, the size of foreign credit lines, disbursed under governmental guarantees, fell sharply and accounted for about $5.5 billion. The total import reduction in 1993 was $7 billion, more than in 1992 (excluding humanitarian assistance), and appeared to be closely connected with the reduction of foreign loans of $7.3 billion.

Given the macroeconomic goal of financial stabilization, this decrease of imports was a natural consequence of budget constraints imposed on foreign borrowing to optimize the future schedule of foreign debt service. Therefore, the surplus of the trade balance has not helped to improve opportunities for the current foreign debt service.

Considering the need to give priority to imports of foods and medicines to solve social problems, to retain state enterprises in basic industries, and to take into account the technological determination of production that is dependent on imports of raw materials, machines, and equipment, it is impossible to reduce the so-called critical centralized imports in the short run without making the social situation worse and interrupting the normal technological process in a number of industries. In 1991 the value of centralized imports was above $30 billion; in 1992 it was already less than $20 billion; and in 1993 it did not exceed $12 billion.

The foreign debt service in 1991 accounted for $12.5 billion; in 1992 it was $15.6 billion; and in 1993, before the debt restructuring, it was above $35 billion. In 1991 these centralized needs were financed by attracting new

foreign loans and selling most of the gold and foreign currency reserves, using Vneshekonombank customers' money, and delaying payments on existing import contracts. In 1992, with reserves exhausted and the Vneshekonombank insolvent, this problem was solved only by stopping payment on the foreign debt. In 1993, the credit funds became limited, and the budget deficit actually remained the single source of financing.

13.2 The Budget Limits

The draft of the 1994 federal budget, submitted by the government to the Duma for approval, contained the assumption of self-financing of the foreign economic activities (including external debt servicing). That means that the budget revenues from the foreign economic activities (export and import tariffs, import taxes and excises, revenues from the export for state needs, and disbursed foreign credits) would be the only source for financing the centralized import, non-trade government expenses, and debt service.

Putting the foreign economic activities into a "self-financed" budget sector enhanced in one sense the survival of the state monopoly of foreign trade. In the near future if Russia consistently liberalizes foreign trade the Ministry of Finance will obviously have to agree to include the deficit sector of foreign economic activities in the budget.

The main excess revenue or profit from foreign trade is realized by the difference between domestic and world prices. With a monopoly over foreign trade, the budget (in the framework of the foreign exchange plan) captured this profit and controlled its distribution. The general foreign trade profit came to 15–20% of the budget expenditure. In the 1994 budget it was approximately R 30–40 trillion ($16–20 billion). Part of this profit is used to cover expenses of the "ideological component" of Russian foreign economic relations, to service the debt, and to pay for non-trade governmental expenditures. The remaining part of foreign trade profit is directed into the domestic economy. As a rule foreign trade has added 5–7% to Russia's gross national product.

The abolition of the monopoly of foreign trade meant that the state transferred all the foreign trade profits directly to enterprises and stopped redistributing them through the budget. At the same time, the direct use of this profit for centralized export and import, for politically determined trade, and for servicing the external debt should have been stopped completely. These actions should have been taken in 1992 after the decree on

liberalization of the foreign economic relations and the introduction of ruble convertibility.

After the immense devaluation of the ruble for trade, the profitability of exporting sharply increased and the profitability of import sharply decreased. Centralized import was not abolished completely, and has required budget subsidies. The external debt has not disappeared and has required servicing.

It was supposed that the mobilization of budget resources for these purposes would be implemented using export and import tariffs (30–40% of the difference between national and world prices; $3.5–4.0 billion annually) and the proceeds from centralized exports. However, the existing tariff exemptions for many enterprises and regions considerably reduced the impact of these measures. In 1992, the federal budget revenues from tariffs amounted only to R 400 billion instead of R 2.5 trillion; in 1993 it was about R 2.5 trillion instead of the estimated R 4.5 trillion. In 1993, the proceeds from centralized exports (slightly above $6 billion) actually became the main source for financing the critical imports and the debt service. Nevertheless, to be consistent with the abolition of the rudiments of the monopoly of foreign trade, centralized exports, as well as the export tariffs, must be eliminated eventually.

Within the concept of self-financing of foreign economic activities, Russia would never be able to service its external debt. Unfortunately, even under the most favorable conditions of the debt restructuring, coming into force in early 1995, debt amortization will require that a considerable part of the national income be produced in the domestic economy. This means that the concept of self-financing of foreign economic activities sooner or later must adjust to the idea of the optimal deficit of this budget sector.

Theoretically, the problem could be solved painlessly, if the market exchange rate of the ruble could be raised significantly (for example, to R 500 per dollar at current prices) or if Russia could maintain a stable exchange rate for one year with the current rate of inflation. The Ministry of Finance could then provide $10–15 billion for repayments. The ruble exchange rate stabilization during the second half of 1993 allowed the implementation of this idea to some extent. However, it is absolutely clear that such a currency policy discourages exports and deprives the budget of a significant part of its future revenues.

The relative stabilization and revaluation of the ruble is possible in the future only under conditions of massive inflow of foreign direct and portfolio investments and the cessation of capital flight from Russia.

13.3 The Problem of Capital Outflow

With the elimination of state monopoly on foreign trade and foreign currency, the problems of capital and hard-currency outflows arose.

We must decipher the unclear situation of capital flight because even the government used very different figures for this, ranging between $5 and $20 billion annually. It is necessary to have an understanding of the concept itself and to estimate quantitatively its volume, recognizing that the estimates depend on this concept. Items involved include the following:

- Legal capital outflow.
- Illegal capital outflow.
- Capital flight recorded in the balance of payments in the item errors and omissions.
- Capital flight not recorded in the balance of payments.
- The capital placed by Russian residents abroad in different forms (accounts, property, etc.), legally and illegally.
- Profit lost to the Russian economy through foreign trade operations.
- The foreign currency in cash in the Russian economy.

The data are presented in *Table 13.2*. In principle, any excess of capital exports over imports in the form of loans, direct and portfolio investment, or bank assets could be considered capital flight, since the opportunities for investing these funds in the domestic economy are limited. According to this definition, the so-called legal capital flight from Russia in 1992 was more than $4 billion, just from the increase of foreign assets in Russian commercial banks. In 1993 there was a break in the trend of development of commercial banks' currency assets. Their increase for the year amounted to only $1 billion (if the changes in the international reserves are taken into account). At the same time the inflow of foreign currency in cash increased sharply, testifying to the greater dollarization of the economy.

The export earnings of Russian residents, which were not transferred from abroad, also should be attributed to illegal capital flight. In the balance of payments this phenomenon could be reflected only in the errors and omissions item. This phenomenon was widespread in 1992 and in early 1993. Since then capital flight has taken less open forms because control over it has increased.

The concept of profit lost to the Russian economy refers to the revenue that is forfeited from under-invoicing exports and overinvoicing imports in international trade. In 1992 and 1993 Russian exporters deliberately understated their earnings and importers deliberately overstated their payments,

Table 13.2. Capital flight from Russia, in billion dollars.

	1992	1993
A. Illegal capital outflow		
I. Recorded in the balance of payments	4.2	4.0
1. Export earnings not transferred from abroad	2.4	1.5
2. Advance payments under fictitious contracts		
• Goods	1.3	1.0
• Services	0.5	1.5
II. Unrecorded in the balance of payments	6.5	5.8
3. Understatement of export and overstatement of import prices		
• Gains of Russian residents	1.0	0.8
• Gains of foreign partners (profit lost)	(10.4)	(7.5)
4. Payments on Russian residents' accounts abroad for property and services in Russia	1.5	2.0
5. Smuggling	4.0	3.0
Total	10.7	9.8
	(21.1)	(17.3)
B. Illegal capital inflow	5.4	7.3
I. Recorded in the balance of payments		
1. Imports without payments to residents	1.9	1.3
II. Unrecorded in the balance of payments		
2. Smuggling	2.0	4.0
3. Increase of unrecorded hard currency in cash	1.5	2.0
Net capital flight	5.3	2.5
(A-B)	(15.7)	(10.0)
Volume of illegal capital of Russian residents accumulated abroad (end of 1991 = $5 billion)	10.3	13.8
Interest	1.0	1.4
Total illegal capital abroad	11.3	15.2
• Accounts	9.3	10.2
• Property	2.0	5.0
Legal capital flight	3.0	4.4
Balance of foreign direct and portfolio investments	-0.7	-0.8
Balance of short-term capital	3.7	5.2
• Commercial bank deposits and accounts in hard currencies	3.6	-0.5
• Inflow of recorded hard currencies in cash	0.0	5.7
• Other	0.1	-
Total volume of the legal capital accumulated abroad		
• Accounts and deposits	9.0	8.5
• Foreign currencies in cash in internal economy (end of 1991 = $5 billion)	6.5	14.2

Source: author's estimations.

and parts of the gains received by their foreign partners were transferred to the foreign accounts of the Russian residents as a *bonus*. This practice was an important channel for capital flight.

It is necessary to note that the appearance of many new participants in international transactions who were unfamiliar with world commodity markets inevitably led to sales at less than the prevailing world prices. For example, according to the Ministry of Foreign Economic Relations in 1992, new commercial organizations sold oil \$3–5 cheaper per ton than the specialized foreign trade organization; there were some cases of goods being sold 5–10 times cheaper than the normal market price. Certainly not all the exporters who sold at low prices did this to take capital abroad.

Assuming that export prices were reduced and import prices were overstated by 15–20%, on average, and that there was an undocumented agreement with foreign partners to make side-payments in only one out of five cases, then the capital flight to the accounts abroad of the Russian residents through this channel can be estimated at \$0.8–1.0 billion annually, at a maximum. Therefore, the lion's share of lost profits went into the pockets of the foreign parters. A significant part of these lost profits was a result of barter transactions. Smuggling is also part of illegal capital flight. In the majority of cases smuggling cannot be reported in the balance of payments and can be estimated only by experts.

The practice of advance payments under import contracts without subsequent deliveries of goods and services (in accordance with preliminary agreement of the parties) and the placement of currency in the foreign accounts of Russian residents have also become relatively widespread. Generally, this channel was used by commercial organizations that have no export earnings but realized huge ruble profits from their intermediate activities in the domestic market.

Until recently, Russian residents could transfer money abroad as payments for some services (information, marketing, etc.) without any limitations or control over services actually provided. A substantial part of these services has not been taken into account in statistics because of the problems in the methods of statistical reporting.

Operations of this kind were used mainly for illegal transfer of funds abroad by Russian residents to open term and savings accounts or to buy property. With the differentiation of the population by level of revenues and with the formation of the so-called new Russian class (with revenues of more than \$100,000 per year, usually not declared for taxes), I estimate a "natural level" of capital flight to be approximately \$1 billion annually. As

the participation of foreign capital in the privatization in Russia increases, the capital flight in this form will also increase.

Russian residents are keeping money abroad in accounts that were opened in violation of the existing law. Part of the wages, fees, and currency incomes earned abroad or within Russia are accumulated in these accounts. As a rule, these accounts were opened by Russian residents who can go abroad on a regular basis as well as by highly skilled specialists of joint ventures.

Some gains from selling tangible assets, primarily real estate sales within Russia to foreign corporations or individuals, could have been placed in the accounts kept by Russian residents abroad. This trend is common for citizens planning to emigrate. The traditional set of the goods sold includes cars, garages, apartments, and country houses. Given the number of emigrants in the past three years it has been estimated that about $500 million has been transferred abroad in this manner.

Finally, the dollarization of the economy is closely connected with capital flight. The use of dollars in everyday transactions in Russia represents one of the objectives for accumulating foreign currency in cash or on accounts. With the development of markets, the monetary functions of the ruble experienced serious changes. First, in noncash settlements the role of the ruble as money weakened sharply due to problems in the banking infrastructure and because of the CBR's policy of technical limitations on money-supply growth. Noncash money circulation decreased with the rapid acceleration of cash circulation. Second, under high inflation the *cash ruble* ceased to perform its function as a means of savings; it had successfully played this role until 1990, when it was being kept under mattresses. As a result, cash turnover rose sharply.

The propensity to save has decreased, according to all traditional statistical data. However, this statistical fact is subject to serious doubts. With increased political and economic instability, the propensity to save decreases and savings are oriented to foreign currencies. Today dollars are being kept under mattresses, diverting a definite share of savings away from time deposits of rubles. And if one assumes that the amount of household money kept under mattresses could be comparable to the size of savings deposits in rubles, the holdings of foreign currency at home today would be equivalent to $5–7 billion. Approximately the same amount should be in circulation in the trade of so-called new commercial structures. Thus, in recent years, part of the national wealth has been used in a nonproductive manner to cover the social costs of the shift from rubles to dollars. This means that a definite

part of capital flight has gone into the dollar sector of currency circulation in Russia.

With our specific notion of capital flight, it turns out that illegal capital outflow recorded and unrecorded in the balance of payments totaled $9–11 billion in the 1992–1993 period. Combined with profit lost, this sum amounted to $17–21 billion; if the legal capital outflow is included, total capital flight equals $20–25 billion annually.

We must also take into the consideration the illegal inflow of capital. Some goods are imported at the expense of previously unremitted export earnings; in addition, some goods are smuggled into the country. Therefore, all of the above-mentioned figures must be decreased by $5–7 billion to derive the net capital flight.

The volume of the capital accumulated by Russian residents abroad in all forms can hardly amount to more than $15 billion, and one-third of this sum appears to have been invested in property.

The administrative struggle to reacquire this capital has been unsuccessful. The amount of the capital outflow is not very significant. The aim of the government should be to stop the process of capital flight by economic methods, particularly by improving the investment climate in Russia. But there is a basic contradiction: the general deficit of the federal budget does not permit improvements to be made in the investment climate at present. The situation would be different if a new, powerful source of budget revenues could be found. Privatization is one such source. The development of the privatization process in Russia is at a crucial point in the context of structural changes in the economy; the process could stimulate the inflow of the foreign direct and portfolio investments and stop capital flight.

Anatoly Chubais's concept of popular privatization has been seriously criticized for its methods of the valuation of property. These methods were changed after 1 July 1994. Nevertheless, popular privatization has played an important role in the creation of private ownership. If there had not been this stage of privatization, only foreign capital could have taken part in the acquisition of Russian property, resulting in "foreign" privatization instead of a "popular" one. Starting in the second half of 1994, national and foreign capital was scheduled to be allowed to be included in the process of privatization. This means that the populism in privatization will be completed and the federal budget will gain a significant source of revenues.

According to my estimates, the commercial approach to selling state property (excluding land) could provide the budget with R 15 to R 20 trillion. The main sources of this revenue include foreign investment ($2–3 billion), foreign currencies in cash from the domestic economy ($1.5–2 billion), capital

repatriation from foreign accounts of Russian residents ($0.5–1 billion), and revenue that is prevented from being part of capital flight ($5–7 billion). In this situation the debt service could be increased by $7–10 billion annually.

Note

[1] For the analysis I have deliberately deviated from IMF methods of balance composition, as well as CBR methodological principles. In particular, the balance includes only the actual figures of the foreign debt service, while the schedule of payments and overdue payments are not included in the balance. All calculated or estimated items of the balance of payments were attributed to errors and omissions. In some cases I used my own calculations and estimates.

Chapter 14

Foreign Investment and Privatization in Russia

Alexander Astapovich

Western countries are interested in trade and economic cooperation with Russia because of the obvious potential of Russia's domestic market, its raw-material wealth, and its scientific and technological capabilities. Timely increases in Western trade and investment could help solve the most acute Russian economic problems.

Privatization and enterprise reform are the main areas of the post-communist transformation. The marketization of the Russian economy is closely related to foreign technical assistance and the inflow of financial resources including private direct investment. However, Western companies face an unfavorable investment climate and enormous political and commercial risks. The most significant obstacles to investment in Russia are the following:

- The instability and uncertainty in legislation and regulations, particularly relating to taxation, tariffs, and the administrative framework for foreign investment.
- The uncertain ownership of assets, especially of natural resources; this problem is intensified by disputes and conflicts between federal and regional (oblast) governments.
- The financial illiquidity and instability of Russia, worsened by the payment arrears crisis and foreign debt.
- The severe lack of information available to foreign investors.

- The high transaction costs of entry to the Russian market, including visa restrictions, travel complications, and the difficulty of establishing offices.

14.1 Major Barriers to Foreign Investment in Russia

14.1.1 Instability of laws and regulations

Among the most serious barriers to foreign investment is the chaotic situation in government rules affecting business. Russia is in a state of flux, having abandoned the rules and procedures of the former centrally planned economy, but having not yet adopted or implemented the laws and institutions necessary for a market economy.

The lack of adequate economic legislation must be emphasized. Moreover, foreign investors face frequent changes in the rules of the game. This situation is reflected in the negative evaluation of Russia's investment climate by companies, banks, and consulting firms since, in general, the legal stability in a given country plays a key role.

Also, in the Russian government the views of those advocating immediate equalization of the conditions for national and foreign investors have predominated. Thus Russia's contemporary policy has revealed insufficient understanding of Western practice and of existing general investment trends. In particular, the government's approach to national treatment (i.e., treatment of foreign-owned companies as the indigenous ones) has been the cause for a number of unexpected actions in taxation, tariff, and exchange regulations. The idea of national treatment is closely related to relaxed protectionism, meaning, first of all, a "nondiscriminatory regime" for foreign investors. However, in Russia national treatment is viewed by many officials as "pure national treatment" that eliminates any incentive for a foreign investor. This contradicts the practice of most transforming economies.

Another significant obstacle to foreign investors is the confused administrative regime. Lack of transparency complicates problems created by the absence of screening of foreign investment. Russia has no effective one-stop shopping organization. Administrative functions and decision making in foreign investment areas are separated. In turn, Russia has government bodies with conflicting and overlapping regulations affecting domestic and foreign businesses. Rather than a system of screening and fast approval of investments, the regulations result in an ad hoc and unpredictable process.

In such circumstances, negotiations and contracts for investments are complex and protracted. Without commonly accepted and enforceable commercial codes, each contract must embody the basic provisions of such codes. Some decrees and regulations are even treated as internal documents and are not available to the public. Any major project usually has two rounds of gathering signatures: one round for obtaining interministerial signatures and the other to acquire signatures of department heads of the federal government. Foreign companies must expend large amounts of time going from ministry to ministry trying to find who might give the final approval. Almost everything has to be decided by the Russian government as an exception to the rules. In this environment, even unfavorable laws and policies are better for foreign investors than ad hoc decision making.

Risk connected with uncertain consequences of laws and regulations could be reduced by "grandfathering" investments. Investors would be more interested in new projects if they were sure they would be able to operate under the rules in existence at the time of investment. This is particularly important regarding taxes since political risk guarantees by Western governments do not protect investors against changes in tax regimes. The presidential decree of 27 September 1993 introduced a three-year grandfathering rule to protect investors from future policy changes. Two problems connected with this decree exist. First, it is unclear which investors can receive incentives and what kind of incentives are going to be granted. In particular, the Ministry of Finance refuses to grant tax incentives to foreign investors according to the decree. Second, the decree must be approved by the State Duma. Moreover, the fate of the decree itself is quite uncertain even if the State Duma approves it.

Foreign investors are frequently uncertain as to who is in control and with whom they should be dealing. A common barrier is the uncertainty as to which organization needs to approve a transaction and on what level – federal or regional. The situation is complicated by the frequent redistribution of authority and/or responsibility between federal and local governments. This problem is of particular concern for transactions involving sizable Western investment based on commitment of regional/republican natural resources.

14.1.2 Unclear ownership

Many foreign companies have had to negotiate with local, regional, and federal officials, as well as with individual enterprises. Investors are regularly going back and forth for approval while the various levels of government argue among themselves about who has ownership right and what their

share of profits and hard currency should be. These negotiations are further complicated by the different levels of government citing different, and often conflicting, laws and decrees. Moreover, regional/republican governments are able to issue orders and decrees conflicting with both the basic legislation and the decisions of federal government.

Investors are very much concerned that they may expend considerable amounts of time and money on a venture only to find out that a previously unknown, key organization must be involved. This is still a matter of particular concern to small foreign firms that do not have the funds to work with every level of authority. In this case, such firms must be sure that everyone whose approval might be required is included in the process.

Such a confused situation can be partly improved by the presidential decree of 27 September 1993. It states that any new procedures regarding foreign investment can be introduced only by laws or decrees of the president of Russia. Decisions of regional/republican authorities are illegal. However, a full solution of the problem would be transparent and efficient distribution of powers between the central and the local governments, and the establishment of a powerful, one-stop shopping investment agency.

14.1.3 Lack of commercial and market information

Lack of information about the Russian economy, regional markets, individual enterprises, and officials adds to the uncertainty, particularly for small and medium-sized foreign companies. In the former Soviet Union regional information was not necessary or available because all transactions were made in Moscow.

Companies need market information on regional resources, per capita economic data, and information on the transportation and telecommunication infrastructure. Investors face the possibility of insufficient information about licensing requirements, tariffs, foreign exchange availability, and the like. In short, companies need a correct and current study of the investment climate to define how to do business in Russia.

Also, foreign investors need help in finding and evaluating potential business partners, particularly in regions. In fact, there is no systematic way of seeking potential Russian partners other than by traveling to Russia repeatedly. Foreign investors cannot even find out if their prospective partner is a legitimate enterprise.

The uncertainty in the information area could be reduced by investment promotion programs. Promotional techniques must consist of providing information and services to prospective investors. This would involve

investment seminars, preparation of itineraries for visits of prospective investors, matching them with local partners, and providing services to investors after projects have become operational (for example, permission to use certain facilities provided by the government).

14.2 Prospects for Foreign Investment in Russia 1994–2000: Stability versus Uncertainty

According to Goskomstat, in 1993 the level of foreign investment in Russia was $2.9 billion. This amount is more than in the previous year when the value of investments was $2.5 billion. However, these amounts are too small for a country as large as Russia. Foreign companies have mostly invested in machine-building and metal-processing industries (23.2% of total investment) and the oil and gas sector (16.3% of total investment). The uncertainty in Russia is reflected in the forecast of foreign direct investment. The forecast is based on factors that characterize the investment climate in Russia: political situation in the country, state of the Russian economy, changes in legislation, and the scale and nature of Western assistance.

14.2.1 The pessimistic option: Option I

In the political sphere, confrontation and instability will be mounting in the next 1.5–2 years. Aggravation of the bad economic situation will favor the victory of a rightist (in Russian terms, conservative) candidate in the next presidential election and the conservative's domination of the new parliament. As a result, any attempts to proceed with market reforms will be suspended.

The economic policy (the huge budget deficit, financing unprofitable sectors and enterprises, subsidies for agriculture, steady increase of wages in the budgetary sphere, etc.) will result in hyperinflation at a monthly level of 45–50%. The decline of production will continue, the share of government purchases and regulated prices will increase, and the importance of barter deals among enterprises will again increase.

Hyperinflation and lack of the sources of finance will inevitably put aside any institutional changes. Regulations relating to foreign economic activity will be toughened, and the legal and administrative regime for foreign investments will become unfavorable. Western assistance will be curtailed. Only technical and humanitarian assistance is likely to continue on a small scale, and credit lines may be furnished by some countries. The problem of

foreign debt repayment will be particularly grave as the West will refuse to negotiate debt restructuring.

Such conditions may persist through 1996, and would make the investment climate very unfavorable. Hence, commercial and political investment risks in Russia will increase. In this case, the annual increase of foreign investments will amount to not more than $0.5 billion and will mainly be confined to existing ventures. In this case, the share of industry in total foreign investments will drop roughly to one-fifth.

This option is least likely, but it cannot be ruled out.

14.2.2 The optimistic option: Option II

In the political sphere, this option is based on the fact that re-election of parliament can produce a new, more favorable relationship between the legislative and executive branches of power.

Considering the low efficiency of the present economic policy and a certain burden of responsibility of the executive power for the tragic events of October 1993, it is rather likely that the forthcoming presidential elections will be won by a new candidate supported by Russian private business circles. Such victory is more realistic if the elections are held in 1996 as President Yeltsin has stated.

Financial stabilization will occur approximately by the end of 1995; this will include stabilization of the ruble and the budget deficit. The inflation rate will be reduced substantially. Implementation of the program of mass privatization will reduce the share of the public sector to one-third of the economy. Privatization will be accompanied by the restructuring of enterprises and production modernization. This will lead to a revival of investment activity, structural changes in the economy, and, at the end of the period, a higher rate of economic growth.

In the legislative area, full-fledged laws relating to joint-stock companies and partnerships will be adopted; detailed and clearly defined terms of using foreign investments in privatization will be supported by standard acts; and the mechanism of bankruptcy based on the effective law will be in operation. The Foreign Investment Law will be amended to protect investors from the worsening of investment conditions ("grandfathering" investments) and to restore the previously envisaged tax and customs incentives.

Western assistance will be more active and specifically addressed. It will be channeled to support the private sector and to set up the institutional structure to promote foreign investment, including organizations to insure

and guarantee investments. Major projects involving world-class multinational companies may be expected.

The obvious improvement of the investment climate and reduced risks will stimulate an increase in the annual flow of investments to $5–6 billion by the end of period. The share of industry in the volume of foreign investments will also grow. This optimistic option sets up a typical development of the situation in a transforming economy. Such an option is quite possible in Russia, even though there is a little likelihood of it being fully realized.

14.2.3 The intermediate option: Option III

Despite the new elections, the current political and economic instabilities and uncertainties will persist indefinitely. The newly elected deputies of parliament will need time to gain experience as legislators. Within the executive branch, there may be a consolidation of those who advocate tighter government control in all economic spheres, equate most of the private sector with organized crime, vehemently oppose the "selling of Russia and its wealth," and insist on using Russia's human and financial resources rather than attracting foreign capital.

The high level of inflation and decline of most industries will continue. The government will not be able to adhere to a rigid monetary policy, which will be undermined by financial requirements of sectoral ministries and agencies and strikes and actions of protest by various groups of the population. An extremely depreciated exchange rate of the ruble will continue at least until 1996. In general, compared with the two previous options, economic policy of the government will be most inconsistent and contradictory.

In the field of legislation, fundamental changes in legal support of market reforms can hardly be expected. The tendency to unify conditions under which national and foreign investors operate will continue. Among other things, some of the few existing privileges for enterprises with foreign participation will be canceled.

Given these conditions, Western assistance, for all its importance from the standpoint of the government, will be relatively small. The West will seek to provide resources for a limited number of projects, above all those implemented with the participation of foreign firms. A clear policy line will be missing (at least for the next 1.5–2 years) due to the different views of the government and parliament on the use of assistance; as a result there will be a struggle among various Russian ministries and agencies for foreign financial resources.

Under Option III, it is possible to expect the implementation of several projects heavily financed by foreign investors (up to $1 billion). The possibility of risk insurance by Russian and foreign institutions is likely to increase the flow of foreign investments. Thus, annual foreign investments may amount to $1.5–3 billion.

Option III appears most likely. In reality, however, it is improbable that all conditions in any of the options will occur. Therefore, it is safe to assume that the situation will actually be some combination of Options II and III.

14.3 Privatization, Deregulation, and Foreign Investment

Privatization and enterprise reform are the main steps to transforming Russia's command system to a market economy. The Russian government has adopted and has started a comprehensive program for the privatization of small, medium, and large enterprises. Obviously, the program needs foreign technical assistance and financial resources including private direct investment. The international community could provide substantial support for regions and cities in particular.

In conducting large-scale privatization the government has had to choose between economic efficiency and social justice. Another crucial problem concerns the quality and the speed of the privatization process. Undoubtedly, the government is not able to maximize all of these factors simultaneously. The ways of solving the problems directly determine the attitude of foreign investors. One must have a clear understanding of the the correlation of the responsibility of governmental bodies in privatization, the prospective areas of foreign investment, and the primary incentives for domestic or foreign purchasers of privatized property.

14.3.1 Recent developments and first results

In 1993 the privatization process in Russia was predominantly determined by the political factors. The problem of basic privatization legislation was solved formally: over 100 acts, mostly as presidential decrees, were adopted. Actual privatization grew rapidly. The privatization process could be divided into three categories:

- Small privatization, including shops, restaurants, service facilities, minor enterprises.

- Mass privatization of medium-sized and large enterprises in different industries.
- Voucher privatization.

Small privatization. By 1 July 1994, over 68% of small firms had been privatized in trade, 66% in catering, and about 78% in services. Major trends in this area are the following:

- Employees dominate among purchasers.
- The share of auctions and competitions has been decreasing. In turn, the significance of incorporating has increased.
- On average, the final price at auction exceeds nine times the initial price.

Mass privatization. By 1 July 1994 there were 7,129 firms in the register of enterprises subject to mandatory incorporation, with only 4,368 registered as joint-stock companies. The total authorized capital amounted to R 804 billion. By that time, in Russia 21,301 joint-stock companies were registered (according to the procedures established by presidential decree No. 721), with the total authorized capital of R 1.1 trillion.

Most enterprises (75% by 1 July 1994) have chosen the so-called second variant of the mass privatization, which provides workers of enterprises with 51% of ordinary voting shares. The choice of the second variant reflects the employees' preference to control their enterprises. This development negatively influences the mobilization of internal capital investments: neither strategic Russian and foreign investors nor investment institutions including vouchers funds have been particularly attracted to participate in this kind of privatization.

Voucher privatization. In Russia the majority of vouchers (privatization checks) have been received by citizens living in remote areas and with little knowledge of securities markets. Thus, the matter of effective use of the vouchers is of critical importance. In particular, the problem includes the price of the voucher, its support, and the establishment of investment funds as professional mediators between individuals and the securities market.

By 1 July 1994, out of a total of 150 million vouchers, 86.3 million were used at auctions, 41.4 million through closed subscription for shares (i.e., altogether 85% of all the vouchers). About 60 million vouchers have been accumulated by investment funds, and more than 20 million have been sold by the population. However, these figures only partly match one another.

The market price of vouchers has increased from two-thirds of its nominal price to more than double its face value in 1993. Official access of foreign

investors to check auctions and tenders may raise the market value of vouchers during the first half of 1994. According to official estimates, in 1992–1994 foreign investors have acquired 10% of the total shares that were available for sale at auctions and investment tenders. The total value of these deals amounted to $1 billion.

14.3.2 Disputed questions

The most effective way to support the privatization process could be the enterprise reform. The government can and must help many enterprises to be restructured. But for many months the State Committee for the Management of State Property (GKI) believed that restructuring is a responsibility of new private owners in Russia. Also, needed additional investment should be financed by the enterprise's funds.

However, under existing circumstances it is too hard to implement this idea in practice. Many people, including government officials, do not really understand that a mechanical transfer of ownership title is only the initial stage of privatization, which should be followed by restructuring. By now in most enterprises, ownership transfer owing to privatization procedures has not led to transferring the control from existing directors and employees to new private owners or secondary investors, including foreign companies.

In this case, the highest priority is to promote the restructuring of enterprises. Only in this way can the requests for huge government subsidies and financial transfers no longer undermine the prospects for financial stability. The restructuring of new private enterprises could significantly improve the economic and social situations in Russia. Taking into account the shortage of financial resources and limited technical possibilities, an internationally financed restructuring fund and technical assistance would be very important for Russia.

There are also two specific problems for the many enterprises remaining in the public sector:

- How to privatize enterprises where ownership change is limited by the current legislation.
- How to establish criteria for the use of state-controlled "gold" share. The most urgent action for new joint-stock companies is the creation of an appropriate structure of corporate governance.

Also, the clear requirements for placing defense enterprises on the list of firms for which privatization is prohibited should be defined. The list is likely to include enterprises connected with nuclear production and space

exploration. Production of arms, arms equipment, and parts and components for these equipments is considered a basis for retaining a controlling proportion of shares in the state's hands. "Gold" share will be issued to enterprises producing dual-use goods.

The need for massive enterprise restructuring in the transforming Russian economy heightens the importance of effective corporate governance. How to maintain efficient corporate governance while moving away from central administrative control to dispersed ownership is a central issue in Russia. In turn, the mode of privatization is likely to be the most important factor determining the initial distribution of share ownership.

In Russia, where the stock market is poorly developed, active shareholder monitoring could be a significant mode of corporate governance. The possibility of shareholder monitoring, however, is closely related to creating new effective owners for the former public enterprises. To create such a class of new owners was very difficult under voucher privatization with the free distribution of state property. Direct sale and management buy-outs lead to a somewhat less concentrated form of ownership, and voucher schemes would result in widely dispersed shares.

Some evidence supports the view that concentrated ownership patterns lead to better corporate performance. However, more widely disbursed ownership patterns clearly have other economic and social benefits that are important in the Russian setting. A partial solution of this dilemma could come from the activity of institutional intermediaries that concentrate influence rather than ownership.

Positive implications of privatization would be more prominent if an effective business environment for new private items had been established. This could weaken the burden of the social costs of restructuring and facilitate solving privatization problems properly. The most necessary actions include clarifying bankruptcy procedures, clear distribution of responsibility between central and local governments, support for property rights, promotion of advisory services (especially for small businesses), and a simple, transparent system for foreign investors in taxation and in legal and administrative matters.

14.3.3 Practical issues and possible decisions

Under the circumstances given in Section 14.3.2 successful privatization calls for the application of specific and urgent measures. Some problems are connected with completing voucher privatization. The necessity of such measures is emphasized by the delayed privatization of large public enterprises in

the post-communist countries of Central and Eastern Europe. These countries began privatization earlier than Russia and have managed to complete small-scale privatization with a measure of success. Unlike Russia, Eastern Europe never suffered from total domination of state-owned economic structures and the political polarization of the society.

From the standpoint of participation of foreign investors, four groups of privatized enterprises could be specified. Each has its own features depending on the technical and economic parameters and its significance for the country's economy.

The first group includes the main part of federal and municipal activities that can be privatized using foreign investment. The main problem that the sellers face in this case is the evaluation of the property to be privatized. In the absence of real market relations and acceptable prices this kind of evaluation is very difficult to do on a large scale. For the Russian proprietors the problem is compounded by an extremely unfavorable ruble exchange rate.

The second group comprises oil and gas enterprises and some extractive industries. In this case foreign investors need to receive from the government special permission because these sectors are sensitive from the standpoint of Russia's national interests. However, it seems that such property would be more effectively privatized by licensing according to a general strategy of attracting foreign investment that conforms to current world practice.

The third group includes enterprises that could be sold to foreign investors at a nominal ruble price. These would be technologically outdated enterprises. This kind of enterprise is a heavy burden for the state budget. Foreign investors are interested in the effective control of an enterprise that would give them an opportunity to carry out fundamental modernization. Such enterprises could be sold under a special contract between the investor and the government (personified by either the GKI or a special investment agency), providing guarantees of new investments, technical modernization, and maintaining employment.

The fourth group is one of special significance for privatization with the participation of foreign investors. It comprises high-technology enterprises including defense-related firms. Here a special contract could also be used. At the same time, it can be assumed that a competitive approach would be combined with direct sale of large public enterprises. Unlike the third group, these enterprises are more competitive and are likely to evoke much greater interest from foreign proprietors.

Under transition to a market economy the short time allotted for privatization constitutes major prerequisites for its positive economic effect. The following flexible mechanism could be used to facilitate the privatization

process in Russia. Auctions and tenders yield maximum effect in privatizing property associated with extraction and processing of natural resources. Such property is characterized by just a few parameters in considering the value of the property. Determining a reasonable price during privatization is not time-consuming or expensive. Even here, particularly in the case of tenders for gold and oil and gas extraction, a feasibility study is required along with the assistance from well-known investment banks and consulting and legal firms.

In privatizing large industrial enterprises many factors must be considered. Frequently, privatizations of industrial enterprises must secure the national interest and thus must be aimed at providing efficient management and technology and maintaining current jobs rather than achieving a high sales price. This is very important for enterprises standing idle and sustaining enormous losses.

When determining how to involve foreign investors in privatization, Russia should study the British experience. The UK government has introduced different conditions of foreign participation in privatization of the large British companies. Such conditions for individual companies included foreign ownership limitation (up to 15%), reserving the CEO position, and voting control limitation (up to 15% or 50%). Of course, these conditions mean the introduction of some restrictions. The flexible approach of the UK government, however, simultaneously promotes foreign investment in privatization and protects national political priorities.

Foreign investors are most valuable when they provide mature management with experience in production, marketing, and finance. Therefore, at an early stage of privatization in Russia the direct sale of a number of enterprises to specific purchasers based on detailed negotiations could become one of the main ways to attract foreign investors. Essentially, these will be foreign companies with experience in such deals. It is interesting that similar recommendations are contained in a special study on legal matters of privatization in Eastern Europe undertaken by the UN Economic Commission for Europe.

Problems associated with direct sales, notably slowness and the scarcity of domestic capital, can be addressed without dispersing share ownership widely through voucher schemes. Foreigners with significant capital can be invited as buyers. However, implicit or explicit subsidies can lower the sales price so that domestic entrepreneurs can afford to buy firms. If efficiency is to be strictly pursued, these subsidies can be limited to insiders (directors or employees), who have access to information and are likely to act quickly, given sufficient incentive.

Direct sale to a foreign investor as an option (distinct from tender) may be justified in view of the actual conditions of privatization and prospects for industrial production in Russia. Also, a direct sale could provide a number of advantages to the Russian central and local authorities: earlier completion of privatization, negotiating and signing a contract with the investor, and appropriate evaluation of privatized property.

Also, it would be important to formulate a particular program of pilot projects in one or two leading industries. Practical implementation of the projects should demonstrate that foreign investment in Russia may be successful. As a result, pioneer investors will be followed by other companies.

A program of pilot projects would help to solve a number of pressing problems. First, it would facilitate transferring enterprises, which now are at a standstill due to the severe economic situations, to new effective owners. Current estimates show that losses resulting from enterprises standing idle are much higher than the potential difference between an initial and a final price that can emerge during a tender or an auction.

Second, competent audit evaluation of a few properties for sale should be arranged. Regarding major enterprises, the task is facilitated by the fact that they usually have relatively new imported equipment. This factor will be important for foreign investors when making a decision.

Third, the sale of property to a privileged purchaser would be connected with the partial sale of the shares. However, the probability of foreign portfolio investment in Russia in the near future is slim. Therefore, except for the enterprises in the oil and gas industry and in gold extraction, the participation of foreign investors in privatization is most likely if they can obtain the greater part of shares of the Russian enterprises transformed to joint-stock companies. As a result, the strategic investors will be able to manage enterprises directly.

The procedure of pilot projects must be based on the case-by-case approach. Also, the program, which supposes direct negotiations and direct sale of property to foreign prominent investors, could be carried out by an interministerial committee. The committee must be entitled to conduct direct negotiations with particular investors and to enter into contracts with them. The actual privatization in the post-communist countries of Eastern and Central Europe strongly confirms the necessity of attracting foreign investment and promoting mutually beneficial contracts.

Finally, I would like to stress the issue of financial–industrial groups (FIGs). The FIGs have no direct connections with privatization, but they can greatly influence the process. FIGs are created in accordance with the relevant presidential decree and can include different Russian enterprises,

both state and privatized, and also banks, trading firms, and insurance companies. The main purpose of creating such groups is to attempt to find and mobilize additional financial resources and to improve competitiveness of Russian enterprises. Also, the well-known scheme of cross-subsidization inside a group could be used. If FIGs are successful they will be able to attract prominent foreign investments. I think the creation of FIGs could help establish powerful Russian enterprises that can compete with large foreign companies.

However, I am concerned about some points. First, such groups can be established if all potential participants agree to be included. Thus far several FIGs have been created based on the decisions of local administrations, without any preliminary agreement. The second point concerns the monopoly effect of FIGs. These groups can receive necessary financial resources without state credits; they would not be interested in improvements in management, restructuring, and so on. The last point is connected with so-called transnational FIGs. At a recent summit, the leaders of the Commonwealth of Independent States signed a treaty to promote transnational economic structures, transnational FIGs in particular. An example would be a transnational group that includes successful Russian privatized enterprises and declining Ukranian state plants. The negative consequences on the future of privatization in Russia are obvious.

Privatization in Russia is a great political success in all significant quantitative indicators. However, the current Russian privatization model cannot solve major problems of the transforming economy – the need for both new effective owners and investment to ensure economic growth. In turn, foreign investors that could support the restructuring of the Russian economy are very interested in a clear and reasonably stable economic policy.

The government's choice to favor the speed of privatization over of economic efficiency has a negative impact upon the activity of newly privatized enterprises. In the future, emphasis should be on the speed of the formal transferring of ownership rather than on titles. Moreover, privatization must be followed by enterprise reform and the establishment of a suitable market environment.

At the same time, flexible techniques of privatization would be useful because they could attract foreign investment. It is necessary to change the procedures and tactics of privatization if strategic foreign investors are to appear on the Russian economic scene.