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DEVELOPMENT OF FOREIGN EXCHANGE MARKETS IN RUSSIA IN 1992-1995

Irina S. Semenova

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Introduction

The improvement of the Russian economy is of greatest importance to the future of Russia and its participation in world economy. Russia's government considered the move towards rouble convertibility as a crucial part of the transition to a market economy. The exchange rate mechanism with the rouble fixed against the dollar at some artificial rate, was no longer adequate. Russia's exchange rate system has passed through several stages since the beginning of the reforms, from multiple exchange rates to 'managed floating', an finally to 'soft peg'. However, a debate between supporters of flexible and fixed exchange rate systems is still taking place. The question is which alternative might be more useful and responsive to the needs of the Russian economy.

The rouble has evolved into a genuine currency, after the price liberalisation in 1992 and introduction of the official rate based on the market trade results in mid-1992. However, the rouble is convertible only domestically. The dollar is a parallel currency in Russia, but it has not pushed the rouble aside. As holding of hard currency is not forbidden by law any longer, Russians swap their roubles into dollars as back, as required at exchange points located nearly everywhere. A lot of people prefer to keep their savings in form of hard currency.

The aim of this paper is to describe the stages of the foreign exchange market development in Russia in 1992-1995. Different types of monitoring reports coming out of various sources in Russia and abroad usually summarise existing information for just one quarter or maximum one year. In this paper an attempt is made to start filling this gap and give an overview of the whole period, when the foreign exchange market (other, than black market) existed in Russia. The other aim is to provide institutional analysis of this market, to show the place of foreign exchange markets in the Russian financial system. The question of the relation of foreign and domestic currency markets and dollarisation, which takes place in Russia, are concerned.

The paper will proceed as follows. First chapter gives background information concerning foreign exchange markets in Russia, starting with the emerge of the market for US dollars in 1991. The participants in the foreign currency markets, their goals, regulation of the market and the role of the Central Bank of Russia are described in the first chapter. Problem of dollarization is also discussed.

Chapter two provides the description of the economic development in 1992-1995. It starts from the price liberalisation in January 1992 and ends with the recent introduction of so-call 'soft peg' of the rouble to the dollar in July 1995. Basic features of the Russian foreign trade and the balance of payments and their impact on the foreign exchange market are analysed in this chapter.

Chapter three is devoted to the structure of the Russian foreign exchange market and the role of currency exchanges. Chapter four provides information on market diversification. Markets for different currencies, the German mark and the Ukrainian karbovanets in particular. Also arbitrage operations are discussed here.

Final section provides conclusions. Additional statistical information is given in the Appendix.

I. Background

In late 1989 the Soviet Union instituted exchange-rate flexibility for a limited share of enterprises' international transactions. The foreign exchange was allocated through auctions. A multiple exchange system was applied for the other transactions. In 1991 there were three exchange rates, used officially in the USSR. There was the official exchange rate of the rouble, the commercial rate used for purposes of foreign trade and the special one used for tourists, i.e. Russian residents travelling abroad. Although they were published, no calculations or basis for these exchange rates were disclosed. The commercial rate of the rouble (1.65 Rb/$ at the end of 1991) was three times less than the official one (0.55 Rb/$). The 'tourist' rate was about ten times less than the official one. The natural explanation for such a gap is that all official exchange rates were set artificially. In addition to the above-mentioned rates there was the black market rate. The auction rate and the black market one were influenced, more or less, by supply and demand factors. As Goldberg (1992) showed, from 1991- to the beginning of 1992 the black market rouble-to-dollar rate was the most flexible one, and was more responsive to the economic situation than the others. Foreign currency auctions had been held by Vnesheconombank[1] of the USSR from November 1989 till May 1991. The US dollar was the only currency traded. The sources of hard currency were the centralised funds and the accounts of state enterprises. There were 19 auctions during that period; $300 million was sold. That is about three times less than the initial demand of $1042 million. The average auction exchange rate was 22.63 Rb/$ (Golubovich, Kulagin & Mirimskaya).

The rouble had been undervalued at the foreign currency auctions for the following reasons. On the one hand, the supply of US dollars was limited by the centralised distribution of the hard currency earnings. On the other hand, a lot of enterprises tried to compensate for shortages of commodities by importing; thus the demand for hard currency increased. Therefore, the auction rate may not be considered as a perfect 'market' rate. However, it was a base indicator when the foreign currency trade through the exchanges started in 1991.

The first currency exchange was created in 1991 by the Central Bank. In 1992 it was renamed and now it is known as the Moscow Interbank Currency Exchange (MICEX). The regular trade sessions started at the MICEX in the end of 1991. Since January 1, 1992 the CBR 'market' exchange rate has been introduced instead of the official commercial rate which was at 1.8 Rb/$. Another rate was used for the obligatory sales of the 40% exporters' earnings (so-called 'commercial rate'). The market exchange rate, based on the MICEX fixing, was the main rate used for export (apart from the 40% of the obligatory sales) and import operations. It was Rb 110/$ in the beginning of 1992 and changed along with the MICEX rate. The 'commercial' rate was fixed at the level of 55 Rb/$. In addition to the multiple exchange rate system, a complex system of export quotas and taxes was adopted. The introduction of the 'market' rate devalued the rouble about 60 times. This devaluation was a part of the price liberalisation covering most goods and services, including foreign exchange. But the price growth in January 1992 was about only 3.4 times. There is therefore strong

[1] Vnesheconombank - the state bank of the USSR, which was responsible for all the foreign exchange operations and service of the foreign trade.

evidence that the rouble was significantly undervalued. Thus a barrier was set up to imports for the population and for certain industries. It was unprofitable to import food, medical equipment, certain drugs, etc. The government was forced to introduce a system of differentiated rates of recalculation from foreign prices into roubles in March 1992 as a way of subsidising imports, so-called 'critical' imports in particular.

In mid-1992 the system of multiple exchange rates was abolished and many other restrictions were removed. The official exchange rate of the rouble to the US dollar was to be set by the Central Bank of Russia, based on the MICEX trade session results. Internal convertibility of the rouble was achieved; residents could maintain domestic holdings of certain assets (for instance, bank deposits) denominated in foreign currencies and thus could convert roubles internally into foreign currency assets. But the main developments for the Russian foreign exchange market and for the economy as a whole were the appearance of the currency exchanges and the introduction of the managed floating of the rouble. The third key event was the total break-up of the rouble zone accompanied by a currency reform in Russia (exchange of Soviet roubles into Russian roubles) in July 1993.

It is important to point out that Russia has two monetary circuits, a system left over from central planning. Cash is used for wages and in shops. But the majority of transactions between enterprises and firms are 'non-cash' i.e., made by debiting and crediting bank accounts. The two circuits are separate: enterprises cannot convert bank deposits into cash. These features of money circulation have been reflected in dollar circulation in Russia. Usually the exchange rate for 'cash' dollars (in the black market or in the exchange offices) and those of 'non-cash' dollars (at the currency exchanges) are different.

1.1 The status of the rouble zone

From January to June 1992 all the former Soviet republics were members of the rouble zone, where the Soviet rouble was the legal tender. Russia's Central Bank was responsible for issuing currency and credit in Russia. Other central banks were authorised to issue non-cash credits only, but there was no limit set for them. The consequent deficit in the trade balances of the former Soviet republics were automatically covered. In addition, Russia provided cash for the Former Soviet Union (FSU) republics, and this cash had been used in circulation.

From July 1, 1992 all the payments from the republics were to be made through their correspondent accounts in the Central Bank of Russia (CBR). So-called 'technical credit' given by Russia to governments of FSU republics was introduced. The size of the credit was negotiable, based on the inter-republic agreements over the trade between them and Russia. As the 'technical credits' were rarely paid back, they could be considered as money transfers, made in order to give the republics possibility of paying for Russian goods. Russia's credits to the CIS countries in 1992-1994 are presented in Table 1.

In July 1992 when the CBR started to distinguish between roubles circulating in Russia and those in other republics of the FSU, the rouble zone ceased to exist as a single currency area in all but name. The monetary chaos in the other republics (unrestricted issuing of credits and persistent lack of cash roubles) explains why the end of the rouble zone was desired by Russia. While the zone existed there was always the

risk that the republics could export inflation to Russia, which had enough difficulties with its own monetary situation.

Table 1. Russian credits to the CIS countries in 1992-1994 ($ million)

Country	*Technical credits of 1992-1993*	*State credits agreed for 1993*	*State credits agreed for 1994*
Ukraine	2500	203.9	-
Uzbekistan	418	55.4	-
Belarus	385.4	60.9	5.1
Kazakhstan	1250	56.7	-
Moldova	88.9	31.9	-
Kyrgyzstan	113.4	19.5	-
Tajikistan	127	114.5	5.0
Armenia	45.1	26.9	-
Georgia	135	6.3	-
TOTAL	**5062.8**	**576**	**10.1**

Source: Ministry of Economy, 'Main directions of the budget policy of Russian Federation' in 1995, p.39

Besides, the ruble zone was used as a way of transferring Russian resources to its neighbours, in the form of 'technical credits' and goods sold below market prices. In fact, these goods could hardly have been sold anywhere else, but the situation, when it was necessary to provide both goods and then provide money for purchasing them was unsustainable. Andrej Illarionov, at that time chief economic adviser to the Russian prime minister, estimated that Russian subsidies in cash and in kind accounted for a 69% of Uzbekistan's GDP, and for 67% of Turkmenistan's GDP (*The Economist*, November 20, 1993, p.115).

In 1992 Russia transferred an estimated $17 billion (or approximately 22% of its GDP) to the other members of the Commonwealth of Independent States in form of loans, cash transfers (rouble notes sent to the republics to provide them with cash for circulation) and lower prices (Ibid.). Doronin (1994) gives an estimate of the 'technical credits' in 1992, which were 8.4% of the Russian GDP, in 1993 they decreased to 4.1%. According to the CBR in 1993 Russian financial aid to the former Soviet republics was 3.3 % of the Russian GDP (Newsletter of the Russia's Central Bank, No 14, June 1994). The Russian aid to the former Soviet republics was disproportional and unsustainable, taking into account Russian financial resources.

"... The IMF wrongly advised the Russians not to set up a separate currency, advice that later cost Russia 10% of its GDP as other republics issued rouble credits that Russia felt obliged to cover. It also insisted, wrongly, that Russia did not need balance-of-payments support, though imports had dropped by 45% in 1991. " (*The Economist*, January 29, 1994, p.28).

In the second half of 1993 'technical credits' were abolished and the accumulated debts were legalised as the republics' state debts. Due to the limits set on non-cash payments the republics started to use roubles in cash to finance the trade with Russia. The transfer of roubles to the FSU republics was 55.3% of the total Russia's emission in the first quarter of 1993. This means that about 50% of cash created was sent to CIS states. In April-June 1993 it was 28.5% (Doronin 1994).

The next stage of the relations between Russia and other FSU republics started in July 1993 after the monetary reform in Russia was announced. It abolished the circulation of the roubles issued between 1961-1992. A Russian rouble was introduced to replace the Soviet one. The purpose of the reform was to isolate the Russian money circulation and to use Russian roubles in each part of the monetary circuit. Formal agreements on co-ordination seemed to bring no results, because each republic had its own policy. The process of economic disintegration went further, and Russia paid the main costs until the introduction of its national currency - the Russian rouble.

Market exchange rates for the 'soft' currencies at the moment of introduction and by mid-1994 are presented in Table 2.

Table 2. Exchange rates of national currencies of FSU states to the US dollar

Country	*Currency*	*Date of introduction*	*Exchange rate Start**	*mid 1994*	*Depreciation %*
Latvia	Lat	June 1992	0.651	0.556	-15
Estonia	Kroon**	June 1992	8DM**	8DM**	0
Lithuania	Lit	October 1992	2.3	4	74
Ukraine	Karbovanets	November 1992	403	46,000	11,314
Belarus	Bel. rouble	January 1993	542	28,800	5,214
Kyrgystan	Som	May 1993	4.2	11.4	171
Moldova	Lei***	July 1993	1282	4.15	224***
Georgia	Coupon	August 1993	5690	1,000,000	17,475
Kazakhstan	Tenge	November 1993	4.68	41.5	787
Uzbekistan	Sum	November 1993	2.9	34.75	1,098
Turkmenistan	Manat	November 1993	2.1	40	1,805
Armenia	Dram	November 1993	14.5	415	2,762
Azerbajdjan	Manat	January 1994	265	1,075	306

* The exchange rate on the date of introduction.
** The kroon was fixed to the lGerman mark.
*** There was a change in the face value of the lei within the period concerned.
Source: *Commersant Daily* No 26, July 1994

The other republics had to decide, whether they wanted to introduce their own national currencies or to be included in a new rouble zone. Georgia, Moldova and Turkmenistan decided to create their own currencies. Five republics tried to stay in the rouble zone and signed a complex agreement, which proposed the co-ordination of monetary, budget, foreign exchange and banking regulations. However the process of signing the bilateral agreements by the FSU republics was not completed due to certain Russian demands. These requirements were mostly aimed at facilitating a common monetary policy. Even though it seemed to be a necessary economic condition for a reformed rouble zone, the republics rejected the idea of being controlled by Moscow, which was strongly associated with a 'restoration of the empire'.

By November 1993 all the FSU republics, except for Tadjikistan decided to create their own national currencies. Tajikistan was the last FSU country to introduce national currency. Tajik rouble was introduced on May 15, 1995. The initial demand for the new currency might have been very high. Tajik economy is isolated and the country was dependent on Russia financially. The main part of circulating before Russian cash roubles have been "exported" by Uzbek traders.

Thus the breakdown of the rouble zone was nearly completed in 1994. The majority of the former Soviet republics had introduced new currencies. However, only the Baltic currencies have appreciated against the rouble. The newly introduced

currencies are usually called 'soft' currencies as opposed to 'hard' ones, such as the US dollar or the German mark. They were neither stable nor fully convertible into the currency units of other countries.

The introduction of national currencies in most countries of the CIS in late 1993 and early 1994 completed the process of establishing the national money markets. However, the Russian rouble is still the common base for the national foreign currency markets in the CIS countries. It is quoted officially in all these countries and plays a significant role in the set of 'soft' currencies of the FSU republics.

Table 3. Exchange rates of national currencies of FSU states on February 1, 1995 (units of national currency per Rb 1,000)

Country	*Currency*	*Official rate of national Central Banks*	*Official rate of the CBR*	*Market rate (non-cash)*	*Market rate (cash)*
Latvia	Lat	0.136	0.136	0.135	0.125
Lithuania	Lit	0.988	0.988	0.988	0.925
Moldova	Lei	1.020	1.069	1.020	1.100
Kyrgystan	Som	2.71	2.67	2.80	2.88
Estonia	Kroon	*	2.970	2.988	2.983
Uzbekistan	Sum	6.27	6.18	15.05	19.50
Kazakhstan	Tenge	13.82	14.65	18.05	13.50
Turkmenistan	Manat	65.04	*	57.25	110.0
Armenia	Dram	80.0	102.56	137.85	122.5
Azerbajdjan	Manat	1,095	1,031	1,420	1,021
Belarus	Bel. rouble	2,870	2,740	2,815	2,765
Ukraine	Karbovanets	29,300	31,447	36,750	35,150
Georgia	Coupon	290,000	*	675,000	930,000

* No quotation
Source: *Commersant Daily*, February 1, 1995

Roubles are accepted as a mean of payment in Georgia, Azerbajdjan and Ukraine . The latter allowed circulation of roubles officially in Crimea in June-October 1994. In all other FSU republics national currency is the only legal tender. However, street market traders in these countries accept roubles as well as dollars (or German mark).

Table 4. Structure of trade payments between FSU contries, %

	1993	*1994*	*1995*
Inter-state clearing (barter)	50	30	15
Payments via correspondent accounts in national central banks	20	15	5
Payments in national currencies via correspondent accounts in commercial banks	15	35	55
Barter, clearing and other ways of non-monetary payments	10	10	10
Payments in hard currencies or in national currencies with dollar equivalent agreed	5	10	15

Source: Igor Doronin, *Finansovye Izvestia,* No 42, 20 June 1995, p. 3

Table 4 presents structure of payments between countries of the Former Soviet Union In 1993-1995. The share of inter-state barter and clearing trade was reduced in

1994. Barter transactions were still significant in the Russian trade, however the share of these transactions decreased from 30.7% to 5.4% for exports and from 24.6% to 4,5% for imports during 1992-1994 (see Table 7 of the Appendix). In 1995 the main role was played by payments in national currencies using correspondent accounts in commercial banks. Rouble played a significant role in monetary circuits and inter-state payments of CIS countries till 1994 . A lot of CIS countries were forced to switch from the payments in roubles to payments in hard currencies after the events of 'Black Tuesday' in October 1994. They resist to allow non-residents to operate in their foreign exchange markets, because this could cause further instability.

Russia signed agreement aimed at measures for providing convertibility and stabilisation of national currencies with governments and central banks of Belarus (on January 6, 1995) and Kasakhstan (on January 20, 1995). The projects of similar agreements with Moldova, Kirgizstan, Uzbekistan and Tadjikistan are ready.

1.2 Participants of the foreign exhcnage market

The foreign exchange operations are regulated by the Central Bank of Russia. By giving special licenses to the commercial banks, the CBR controls their activities and regulates the internal foreign exchange turnover. Authorised commercial banks may have one of two types of license. The general license gives the right to operate with foreign currency both internally and externally, using correspondent accounts in foreign banks. Banks which obtain an ordinary license can conduct foreign exchange operations using their correspondent accounts in banks with a general license.

Authorised banks sell foreign currency to importers and buy it from exporters. The Central Bank buys and sells it to the authorised banks through currency exchanges. Its participation in auctions or in the interbank market outside currency exchanges is occasional. There were eight currency exchanges licensed by the CBR in 1995. The leading one is the MICEX in Moscow. Other exchanges are located in different regions of Russia.

The foreign exchange auctions are held by the banks, which have a general license, and by interbank organisations, such as the Interbank Financial House (Russian abbreviation '*MFD*'), the United Currency House ('*OVAD*'). Commercial banks operate also at the interbank off-exchange market where the transactions are made directly.

Table 5. Estimated supply and demand for foreign currency in 1993 ($ billion)

SUPPLY		DEMAND	
	$ Billion		$ Billion
Export earnings sold on the currency exchanges	10	Financing of imports	8
Foreign exchange sales from centralised and other sources	5	Demand from enterprises for increasing their foreign exchange reserves	7

Source: Doronin (1994), p.29.

Table 5 presents the general supply and demand structure of the foreign exchange market (currency exchanges) in 1993. It is necessary to point out that this data is not provided by the official statistical reports.

The foreign exchange market is still highly concentrated in the currency exchanges. The currency exchange mechanism is a way of redistributing foreign exchange. Generally speaking, there are four groups of participants in the currency exchange market. They are: exporters, who provide the inflow of the hard currency due to the obligatory sales of 50% of their foreign exchange earnings; importers, who provide outflow of the currency in order to maintain import contracts; the Central Bank which provides regulations and the speculators, whose aims are clear. Thus, the goals of all participants in the currency exchange market are different. The role of the Central Bank as the main player at the market will be discussed in detail below.

1.3 The role of the Central Bank of Russia.

There is nothing unusual in the Central Bank's participation in the foreign exchange market trade. In all countries central banks normally take part in such trade. The question focuses on the extent to which the central bank participates. The effectiveness of its actions can be evaluated by taking into consideration the initial goals and the achieved results.

According to current legislation, Russia's Central Bank is the main institution regulating operations involving foreign exchange. An important task of the CBR is managing Russia's foreign exchange reserves. It also sets the official exchange rate used for taxation and accounting purposes. In general, the CBR can use the following policy instruments to affect the monetary sector and consequently the foreign exchange market; changing the discount rate, managing 'centralised' credits, changing the reserve requirements for commercial banks.

The CBR participates in the trade sessions in the foreign exchange market directly using interventions. The MICEX exchange rate is under the permanent control of the CBR. Russia's Central Bank is the main player at the foreign exchange market. It buys and, more often, sells a considerable part of what is traded at all currency exchanges. The CBR interventions are a significant part of the total supply at the foreign exchange market (see Appendix). The CBR's participation in the regional currency exchanges is aimed at preventing a high disequilibrium of the exchange rates between them and the MICEX.

During the period 1992-1995, the strategy of the Central Bank in the foreign exchange market varied considerably. In the first half of 1992 there were attempts to gain total control over the exchange rate level through massive interventions. The desired level of the exchange rate was not achieved, and the CBR was nearly out of reserves. By the end of 1992 - beginning of 1993 the main goal targeted was the smoothing of short-term exchange rate fluctuations. Since 1993 stabilising the exchange rate growth in line with the rate of inflation and preventing sharp short-term volatility has been the aim of the CBR. After the foreign exchange market crisis in October in 1994 the CBR has balanced the initial supply and demand at the MICEX, covering up to 3/5 of the difference from its own resources (*Commersant weekly,* No 12, 1994, p.11). This was possible due to the dominant position of the CBR as a market player.

The exchange rate policy pursued by the CBR from the end of 1992 was generally successful. Some experts argue that the MICEX dollar exchange rate is no

longer a 'market' rate because it is totally controlled by the CBR. Therefore, the exchange rate system should be defined as "a series of rouble devaluations" (*Commersant Weekly,* No 11, 28 March 1994). Nevertheless, the most important result is that the MICEX exchange rate, although regulated by CBR interventions, was accepted as a basis for trade by the market participants.

1.4 Mechanism of currency exchange trade

The members of currency exchanges are banks or other financial institutions which have the license authorising their foreign exchange operations. Currency exchanges are licensed by the CBR as well. Banks can participate in the trade on their own behalf or on behalf of their clients. Banks' employees who are accredited at a currency exchange are called 'dealers' in Russia. However, they are prohibited from trading on their own.

The general mechanism of the currency exchange trade session is as follows. The participants of the trade session give their bids (multiples of US dollars 10,000) for buying and selling, indicating the volumes and acceptable prices. Initial prices for buying currency cannot be lower than those fixed at the previous trade session. During the session dealers are allowed to change the amounts or prices of their bids. All additional bids are made in written form.

The exchange rate fixed at the end of the previous trade session is used as the starting point. At the beginning of the session the 'rate broker' (the currency exchange employee who is conducting the trade session) announces the total initial demand and supply at the starting exchange rate. If the total initial supply exceeds the initial demand, the 'rate broker' lowers the foreign currency exchange rate. If the total supply is less than the total demand, the exchange rate is increased. Every change in the exchange rate (fixing) is made after all dealers submit their offers of buying or selling according to the last fixing. Final fixing is made when demand equals supply. All transactions are made according to that final fixing. Clearing is made on the third working day after the trade session. As a rule, the above scheme of trade is applied. In addition, since the beginning of 1995 the German mark at the MICEX has been traded according to the 'Hamburg' or 'modernised' fixing system, described below.

The sellers of hard currency pay the commission charge in roubles, and the buyers pay the exchange in hard currency. The commission is 0.1% of the amount of a transaction. The Central Bank, being a state body, trades free of charge.

The banks usually give bids and offers simultaneously, this simplifies their work with their clients. Therefore, the banks' bids are formed by different groups of clients. Gross turnover of the trade reported at every session indicates the total amount of hard currency sold by one group of clients and bought by another group. Net turnover is calculated as the difference between the bids for buying and selling hard currency, summarised for all banks. Commission charges are calculated on the basis of net turnover. Therefore, it gives less information about the trade activities; banks try to balance their bids and offers in order to minimise the charges and the special tax, introduced by the Moscow authorities in 1994 (0.1% of the net turnover).

1.5 Financial markets in Russia and the role of the foreign exchange market

The foreign exchange market, having appeared in 1991, was among the first of the financial markets in the Russian economy. Initially it was spot market only. By the end of 1994 spot, forward and futures contracts were traded. Forward and futures markets will be discussed in more details in part III. The main difference between two types of contracts is that futures contracts are standardised by value and maturity (from one to nine months), and they are traded at exchanges. Forward contracts are a part of interbank off-exchange market trade. Two basic periods are 'today' and 'tomorrow', there can be other time periods, as there is no standard. The amount of each deal is negotiable as well.

The most important financial instruments, apart from hard currency are now three-month and six-month government bonds, interbank credits, bank deposits and Vnesheconombank bonds (*'obligatsii VEB'* - government debt denominated in foreign currency). Treasury bills and long-term government bonds are less important. Treasury bills, introduced in 1994 are to be taken out of the circulation till the end of 1995, due to the IMF requirements. Long-term financial instruments are not attractive for investors because of high inflation and uncertainty.

The market for interbank credits only became significant in 1993. It provides banks with capital for playing on the other financial markets. Clients' deposits or centralised credit are used for these purposes much less. The bulk of the credits are short-term (for 1-2 months, sometimes three months) and they are the main source of banks' profits. Credits for up to six months were re-established in 1994 only after relative stabilisation had been achieved. 1994 became a very important stage in the development of this market because in the middle of the year the common indicators (MIBOR[2] and MIBID[3] rates) were created and the single centre for their calculation was established. It is the Information Consortium which unites a number of banks, analytical agencies and the CBR. The other important event is that the 'refinance' rate at which the CBR give credits to commercial banks became more correlated with the market interest rates.

In May 1993, the first operations with short-term government bonds (*'GKO'*) began. In 1994 the market for non-government securities began to develop as a result of large-scale privatisation. In 1995 a market for precious metals is expected to emerge.
One of the main features of the Russian financial markets at present is their unstable structure. Some of the financial instruments only exist temporarily, for example, vouchers in 1993-1994 or treasury bonds. The latter were introduced in 1994 and were seen as very promising instruments for investment and for solving the problem of arrears. However, IMF experts insisted on taking them out of the circulation due to the low discount rate (40% annually) compared with the average market interest rate on securities with similar maturity. As Russian government is heavily dependent on IMF credits, they were forced to announce intention for taking the treasury bonds out of the circulation by the end of the 1995.

Different markets function separately, operating with a limited number of financial instruments. Transfer of money from one sector to another is risky and costly.

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[2] MIBOR - Moscow Interbank Borrowing Rate

[3] MIBID - Moscow Interbank Lending Rate

The reasons for this are technical as well as economic; for instance, trade clearing and information systems are separated from each other and not yet well developed.

In general, no financial instrument was profitable in real terms during 1992 - 1994, apart from during a short period after November 1993 when real interest rates became positive. However, the average real interest rate for 1994 was negative. It was absolutely unprofitable to invest in one financial instrument for the whole year. Nevertheless, a strategy of diversifying the investment portfolio could have brought rewards.

The structure of the Russian financial market in 1993-1994 and the ratio between its parts is presented in Table 6.

Table 6. Financial markets in 1993-1994: structure and turnover.

	1993		*1994*	
	Rb billion	*%*	*Rb billion*	*%*
Turnover of the foreign exchange market	20-24	91	258-328	79
- currency exchanges	11.5	48	88	23.8
- interbank market	8-12	42	170-240	55.4
Government bonds	0.5	2.1	27.5	7.4
- primary market	0.2	0.9	12.9	3.5
- secondary market	0.3	1.2	14.6	3.9
Treasury bills (primary issues)	-	-	5.03	1.4
Interbank credits (Rb)	1.3	5.4	15	4.1
Non-government securities	-	-	54.1	14.6
- stock exchange market	-	-	0.6	0.1
- off-exchange market	-	-	53.5	14.5
TOTAL	**22-26**	**100**	**340-400**	**100**

Source: *Finansovye Izvestia* N 6, 1995

The financial sector is still Russia's greatest generator of capital. The number of commercial banks is increasing, in January 1994 there were about 2500 licensed banks. The attractiveness of financial markets can be explained by the substantial volatility of the profitability of different instruments, the big spread between interest rates, 'buy' and 'sell' exchange rates, the difference between the auction price of government bonds and their price at the secondary market. Differences in the returns form the basis for the market game, the main activity of the financial institutions. According to Doronin (1995) the bulk of the operations last less than one-month. During that period financial resources move between the foreign exchange market, government bonds and the interbank credit market.

The turnover in the financial sector of the economy is growing very fast. In 1994 it increased about twenty-fold and was estimated as approximately 400 trillion roubles (*Ibid.*). Compared to the Goscomstat, estimate of 1994 GDP (630 trillion Roubles) financial turnover is quite significant; though this comparison is not very precise because of inflation and double counting. The growth of the financial sector is enormous in relation to the economy as a whole. In 1993-1994 revenues in the real sector were three to four times less than those in the financial sector. This difference played a key role in providing financial sector with money resources. At the same time it caused deficit of financial resources in the real sector, and provided base for inter-enterprise arrears. In 1993-1994 some of enterprises were forced to invest part of their financial resources into financial and foreign exchange instruments, in order to maintain their revenues and liquidity.

In 1994 the estimated volume of the credit emission was 35-40 trillion roubles (*Ibid.*). The purpose of increasing emission was to improve the economic situation in the industrial and agricultural sectors. Nevertheless the bulk of this money was absorbed by the financial markets. The real sector in 1995 could use money efficiently: there was still no incentive to make long-term investments, and there was no sense to use old production technologies, because in most cases it was unprofitable. On the other hand, it is argued sometimes that the financial sector has reached certain limits in its expansion and cannot use existing resources efficiently. This view was supported by experts of *Commersant Weekly*, who pointed out that the rate of return in all financial sectors was declining in the first half of 1995. Therefore, additional monetary growth was not required by the economy.

Low profitability or even losses of Russian enterprises cause certain difficulties in receiving credits from commercial banks. The latter prefer to invest in projects which promise fast returns. For example, the export sector (that is extracting industry or the first stage of metal production) deserves financial input. High systematic risks prevent investment in other industries, apart from new technology. The financial sector is more reliable in terms of quick profits and guaranteed repayments of loans.

The foreign exchange market is leading the others. Its turnover is about 80% of the total turnover of the whole financial market (see Table 5). The most significant fluctuations in gains took place for the foreign exchange market. In the situation when these transactions are highly attractive and profitable, all other markets (for government bonds, credits, non-government securities) have almost no significance of their own and played a secondary role, subordinated to the foreign exchange market. The sharp changes in the situation on the dollar market could lead to substantial difficulties for the other markets. A good example is so-called 'Black Tuesday', 11 October 1994 when the dollar rate leaped 27.43% and the activity of the other markets stopped for a few days.

1.6 Problem of dollarization

Dollarization or currency substitution is a rational response by the population and the private sector to high inflation rates and economic uncertainty. The dollar has circulated in the Russian economy since the beginning of the transition. It started to be used as a store of value and as a unit of currency. Foreign exchange has been included *de facto* in the domestic money circulation.

There are different estimations of the volume of dollars circulating in Russia. Unfortunately nobody can give the precise figure. Some of the estimates are presented below.

According to Doronin (1994), by the end of 1993 there were about 12 trillion roubles and 10-12 billion dollars approximately in the cash circuit. Converted according to the average market exchange rate for the end 1993, the amount of dollars exceeded slightly the amount of roubles circulating. Between January-September 1994, $103 million were exported from Russia, compared with $15 billion imported (*Commersant Daily*, N 233, 1994).

According to the official report of the CBR in 1994, the volume of dollars in circulation (recalculated in roubles "according to the current exchange rate") exceeded roubles in circulation by at least a factor of two. Although it is not clear, what was "the current exchange rate" used by the CBR experts in their calculations, the estimated volume of circulating dollars is big.

In 1994 average monthly figure for dollar notes inflow (cash dollars transferred into Russia by commercial banks), given by CBR official, was 2-2.5 billion of dollars. In the beginning of 1995 monthly dollar notes inflow in was as follows: January - $2.6 bn; February - $0.878 bn; March - $1.5 bn; April - $0.9 bn (*Izvestia*, 23 June 1995). Thus, the inflow of dollars slowed down in the first half of 1995.

Dollar assets in Russia were estimated as $30 bn by the end of 1994. Foreign exchange reserves of the CBR were not included in this figure. About $20 bn circulated in cash, the other $10 bn were foreign exchange deposits in commercial banks (*Finansovye Izvestia,* No 29, 25 April 1995 and No 36, 25 May, 1995). During 1992-1994 about $50 bn was transferred to Russia through exports, foreign investment and foreign debts. Increase of circulating foreign currency (cash and foreign currency assets) is estimated to have been $28 bn. Exports of capital was $20-22 bn (Ibid.).

The US dollar and other hard currencies (the German mark, the Finnish mark, the Japanese yen, the French franc) are replacing the rouble in the domestic money circulation and have similar functions. There exist a number of shops where prices of goods (mostly imported) are set in foreign currencies. There is no problem of payments: all these shops have exchange points inside or nearby. One can see those in ordinary shops as well; the majority of the population prefer to keep their savings in dollars. About 90% of all estate transactions are made in foreign currencies (*Commersant Daily*, No 7, 1995). However, the rouble was not pushed aside by the foreign currencies, they are parallel.

Table 7 shows that total purchases of hard currency during nine months 1994 were about $16 billion. Purchases were increasing during periods of market instability, but the proportion was almost never less than 40% of the total savings plus cash.

Table 7. Purchases of foreign exchange by the population in January-September 1994

	Feb	*Jan*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*
Savings plus cash in circulation (Rb trillion)	4.2	2.6	4.8	6.9	5.9	7.9	8.1	8.7	10.1
Share of savings, %	26	26	27	25	34	30	25	22	23
Share of cash, %	29	4	21	36	17	29	29	9	15
Share of hard currency purchases, %	45	70	52	39	49	41	46	69	62
Hard currency purchases as a part of savings, Rb trillion	1.9	1.9	2.5	2.7	2.9	3.2	3.7	6.0	6.3
$ Exchange rate, monthly average	1583	1444	1719	1794	1881	1958	2026	2122	2347
Dollars purchased, $ million	1188	1287	1467	1491	1523	1631	1840	2830	2905

Source: Doronin 1995b

Another part of demand for foreign exchange comes from so-called '*chelnoky*'. '*Chelnoky*' or 'shuttles' is a specific category of persons undertaking export-import business privately and crossing the border in both directions very often. They usually go outside Russia as tourists, buy goods abroad to sell in Russia for roubles. Then roubles are converted into hard currencies and the next circle starts. This type of business was quite widespread during 1992-1993, and in many cases was a way of creating initial capital for another business. According to estimates given by some commercial banks, they bought about 60% of the hard currency supplied by banks (Ibid.). In 1994 this proportion seemed to be much less. The fall in the 'shuttle' purchases of hard currency

can be explained by the development of organised imports, involving special companies which have bank accounts and use the interbank market for currency exchange.

In mid-1993 the ratio of bank deposits denominated in hard currencies to M2 was more than 40% (Doronin, 1994). Investment in foreign exchange is one of the banks' main activities. The main source of capital for this is client's money. The second source is interbank credits. About 70% of these credits, which consist mainly of CBR 'centralised' resources, are channelled directly to the enterprises; 20-25% are used for buying hard currencies (Ibid.). There are some other sources, for instance, correspondent accounts of the regional banks in Moscow banks.

However, since June 1, 1993 banks were forced to balance purchases and sales of foreign currency through the limit of their open currency position set by the CBR. This position is determined by the ratio of foreign exchange claims and liabilities of a bank. Following the CBR's instruction, the open currency position is calculated as a difference between the amount of foreign exchange bought since January 1st of a current year and the amount of foreign exchange sold by the bank from its own capital during the same period. Cash sales and purchases are not included. Initially the limit of the open currency position was set at the level of 30%, however at the end of 1994 it was decreased to 10%.

The share of clients' current accounts in foreign currencies was 58-59% in 1993. The share of foreign banks' accounts in total bank accounts increased from 14% by the end of 1992 to 25% by the end of 1993. Most of them were the banks from FSU republics, which opened corresponding accounts in Russian banks.

Some of foreign exchange deposits are kept in the corresponding accounts of foreign western banks. In 1992 the share of these deposits was 76-85% of total liabilities denominated in foreign currencies, in 1993 it increased to 91-97% (Ibid.) The rate of return on these deposits was lower than it could be "at home". However, deposits held abroad could be seen as virtually riskless, while the deposits in Russian banks combined high return with equally high risking.

Since January 1, 1994 the rouble has been the only legal tender in Russia and it was prohibited to use other currencies as a mean of payment for goods and services. However, the evidence shows that almost nobody cares. The measures taken by the CBR in 1993-1994, aimed at limiting the role of foreign exchange in circulation, seemed to come late. This is because the rouble stability is a prerequisite to such move.

II. Macroeconomic situation and the foreign exchange market

The essence of the Russian economic reforms was to a great extent the giving up of the leading role of the state in distribution of raw materials and goods, whilst managing more and more the allocation of financial resources. A reasonable starting point for an overview of the Russian transition to a market system is the price liberalisation in January 1992. After the split up of the Soviet Union in 1991 Russia started the economic reforms as a separate country.

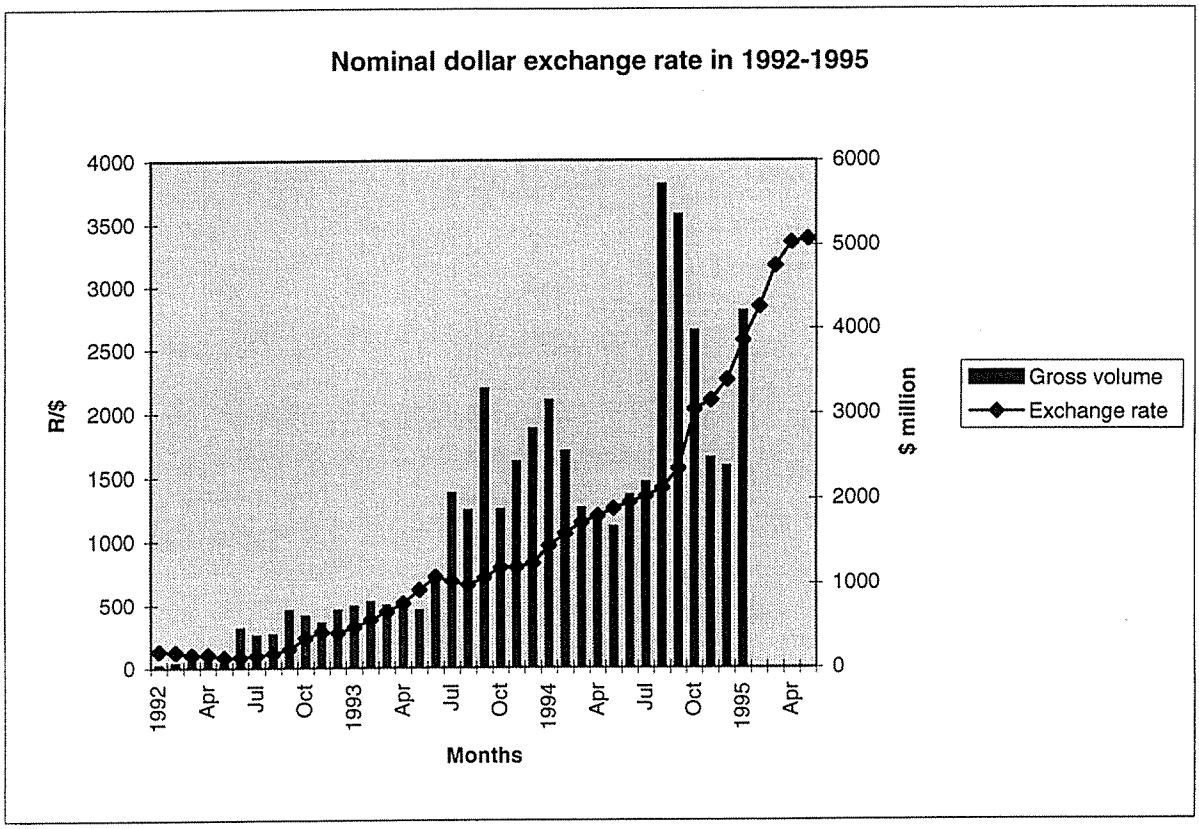
Since the price liberalisation, economic reforms have begun and the country has had a monetary policy that is recognisable as such. The advantages and the disadvantages of price liberalisation at that time are still a point of discussion. On the one hand it seemed to be the only measure that could help to improve the situation as regards the consumer market, which was almost empty at that time. On the other hand, after the sharp increase in prices, production costs throughout the economy have gone up. The authorities hoped that the new prices would send signals to the enterprises to cut production of unprofitable goods and start restructuring. There were some problems that deeply undermined these hopes. Heavily monopolised industry was still managed by Soviet directors and governed by non-market incentives. It did not respond to the price shock in the expected way. State enterprises continued producing their traditional output for their usual customers (the main part of which were other state industrial enterprises) and started to build up huge inter-enterprise arrears. Usually the customers did not have enough current capital to pay for supplies at the new prices, which were several times higher than before. Managers still relied on help from the state.

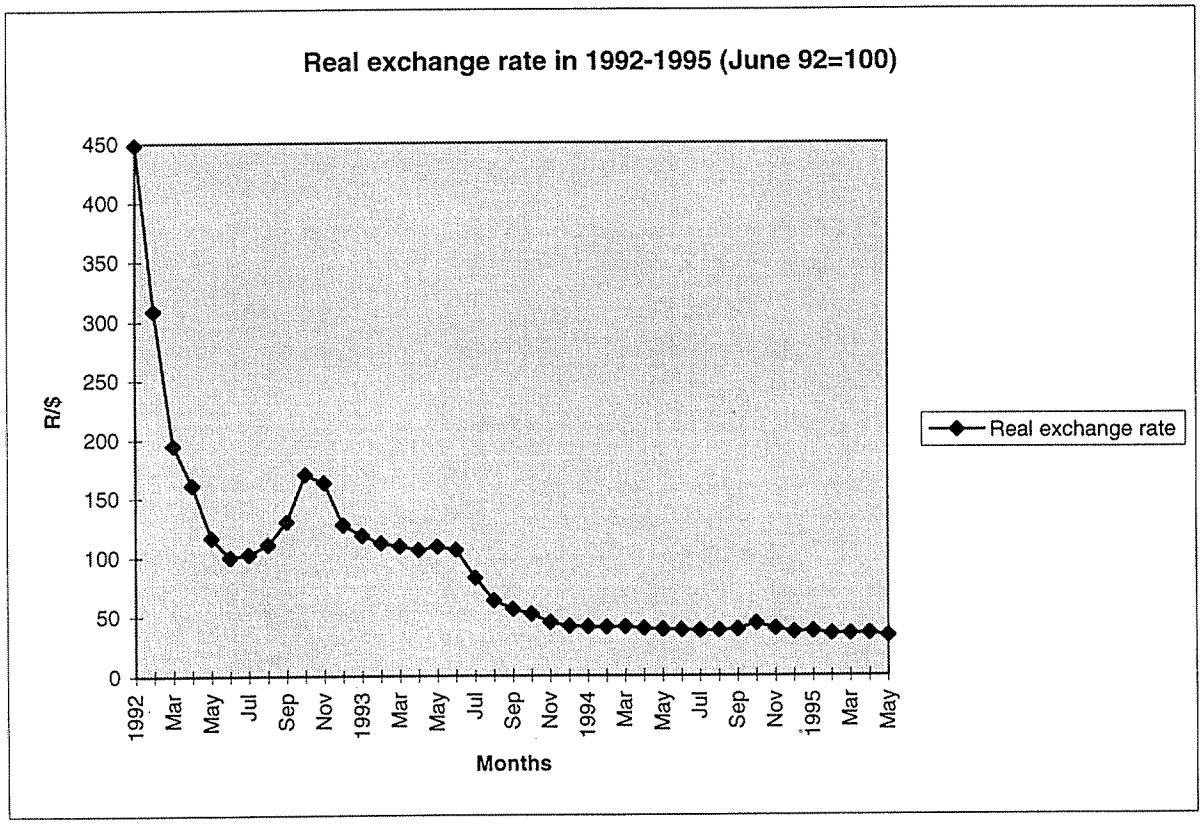
Budget revenues, dependent on GDP dynamics and its structure were decreasing in 1992-1994. During 1992-1994 federal budget revenues declined from 16.4% to 13% of Russian GDP. However, budget deficit during the same period changed from 22% (including 'special purposes' CBR's loans) to 10.3%. In 1995 the pessimistic estimate for the budget deficit is 6.5%. Therefore, during four years budget deficit decline was 3.5 times. At the same time federal budget spending was cut from 44% of GDP (including CBR's loans for 'special purposes') in 1992 to 17.5% of GDP planned for 1995 (*Finansovye Izvestia,* No 37, 30 May 1995, p. 3).

The absence of substantial capital, required for the reconstruction of the enterprises was a problem; neither they, nor the state had enough money. The weak tax-collecting mechanism and widespread tax evasion prevented the possibility of centralised investments. Therefore no real restructuring of the industry was implemented. Moreover any restructuring would necessarily be followed by mass unemployment - nobody was ready for the social shock caused by that. In fact, anticipated unemployment is still one of the main reasons for keeping unprofitable enterprises half-alive and preventing them from going bankrupt.

It is worth mentioning that the proclaimed goal of 'strengthening' the rouble existed only on paper. The economy was tending to be more and more oriented to the export of natural resources (oil and gas in particular), therefore given inflation the CBR had to provide a steady depreciation of the rouble in order to keep the exports competitive in world markets.

In part II the Russian economic trends from 1992 to 1995 are analysed.


Nominal dollar exchange rate in 1992-1995
R/$
$ million
Months
Gross volume
Exchange rate
4000
3500
3000
2500
2000
1500
1000
500
0
6000
5000
4000
3000
2000
1000
0
1992
Apr
Jul
Oct
1993
Apr
Jul
Oct
1994
Apr
Jul
Oct
1995
Apr


Real exchange rate in 1992-1995 (June 92=100)
R/$
Months
Real exchange rate
450
400
350
300
250
200
150
100
50
0
1992
Mar
May
Jul
Sep
Nov
1993
Mar
May
Jul
Sep
Nov
1994
Mar
May
Jul
Sep
Nov
1995
Mar
May

2.1 Stages of the Big Fall of the rouble

2.1.1 Monetry expansion in 1992 and the exchange rate unification

In 1992 an initially tough monetary policy combined with cumulative growth of arrears virtually paralysed the economy, and the authorities were forced to fight the crisis. This was done through credit expansion. In the second half of 1992 emission and direct credits to enterprises lead to the sharp increase in aggregate demand by the competitive enterprises. During the first half, of 1992 money supply M2 (currency plus bank deposits) increased 2.2 times; during the second half of the year it increased a further 3.4 times.

Monetary expansion was followed by an increase in inflation. When the inflationary spiral became intolerable, the next step was to tighten the monetary policy again. The scenario stayed more or less the same throughout the time period concerned (1992-1994).

The stabilisation and appreciation of the rouble during January-July 1992 was caused by the tight monetary policy of the CBR implemented by Yegor Gaidar. This policy caused the decrease of the inflation from 245% in January to 10-12 % in mid-1992. The interest rate on CBR credits was increased from 20% to 50%. The commercial banks' reserves requirements were also increased. The shortage of roubles in the economy, in turn, caused demand for them at the foreign exchange market.

In 1992 the dynamics and volatility of the MICEX exchange rate were generated mainly by the mechanism of the market rather than the general macroeconomic situation. In fact, this mechanism was created in April 1992 when the MICEX started to trade the dollar twice a week. The level of demand changed significantly a week after an increase in the dollar exchange rate. This change could not happen at the next trade session due to the time required for the money transference to a bank, which was a member of the MICEX (minimum 3 days). In May-June 1992 the market mechanism of the exchange rate was affected by the government and the Central Bank. It was decided to force the depreciation of the dollar to 80 Rb/$ using massive CBR interventions. The idea failed completely. When the exchange rate was 112 Rb/$, the CBR foreign exchange reserves were nearly zero, and the trade sessions turned into sales of the foreign exchange provided by the CBR. The commercial banks' supply of dollars was squeezed almost totally. A number of factors were not considered, such as industrial production decline, structural inflation, and lack of control over credit emissions in the CIS countries - which were members of the rouble zone.

In order to solve the debt crisis the government decided to give up the tight monetary policy. In mid-1992 the total amount of these debts was approximately 3 trillion roubles. However, the monetary policy was liberalised without considering the whole economic situation. The credit emission was increased considerably. Money supply (M2) growth in the second half of 1992 was 3.4; the cash in circulation (M0) increased about 3.8 times. Enterprises received the credits to solve the problem of their permanent debts, however, due to the impossibility of production growth the next step was a growth of prices. The money remained partly in the financial sector. According to Doronin (1994) during August-October 1992 about 1/3 of the total CBR credits to the commercial banks were used for buying hard currency. In order to hedge against high inflation, banks even used the money borrowed at a market interest rate

to buy dollars. The demand for dollars was caused by the import efficiency increase in the first half of the year, caused by the rouble appreciation and domestic price growth.

The increase in the dollar exchange rate caused further inflation. Between July and September 1992 the average monthly growth of the consumer prices was 10%. Since October 1992 it has averaged about 25%.

The unification of exchange rates and the introduction of the managed floating of the rouble was one of the main events for the Russian economy. Since 1 July, 1992 the system of funding the centralised imports and Russian international debts has changed. The government was supposed to buy foreign currency at the market rate. Before, these needs were covered by the foreign exchange reserve, formed by obligatory sales of part of exporters' earnings.

The policy of the CBR in the foreign exchange market changed completely in July 1992, after the dismissal of the head of the Central Bank Matyukhin and following Gerashchenko's appointment. The main aim of the new policy of the CBR was not a decrease in the nominal exchange rate of the dollar, but limiting the volatility of short-term fluctuations. They were about 16-18% of the average rate in mid-92, though by October 1992 these fluctuations were not more than 6-8%. Therefore, the CBR policy in 1992 can be considered as successful, as the main goals were achieved by the end of the year (see Kovalev (1993)).

2.1.2 Erratic monetary policy in 1993

In 1993 the nominal rouble-to-dollar exchange rate continued to fall. Monetary policy was less 'generous' than in 1992, even though the inflation at the beginning of 1993 was high. This happened, because higher monetary growth in Russia tended to show up in higher inflation four months later, during 1992. In 1993 and the first half of 1994 this lag was still 4 months. However, according to some estimates, by the end of 1994 and the beginning of 1995 it was 5 months (*Commersant Weekly*, N 1, 1995).

The inflation of the first months of 1993, caused by the expanded credit emission at the end of 1992, affected the exchange rate. During the first half of 1993, CPI growth was 240%. Industrial production continued to fall, foreign exchange reserves were limited and even moderate monetary policy failed to have a significant impact on the inflation. The increase of the 'refinance' rate (the interest rate charged by the CBR to commercial banks) played no significant role. In terms of efficiency, the operations of buying hard currency followed by further sales were profitable due to the fast dollar appreciation. These type of transactions were efficient during the first half of 1993 and enterprises and the population used the forex market operations as a kind of insurance against inflation. This stimulated the demand for hard currency. The rouble-to-dollar exchange rate stabilised for four months after June 1993. This stabilisation was caused by strict monetary policy which followed the agreement signed in May 1993 by the government and the Central Bank. The agreement suggested limitations be put on both types of emission: credits ('non-cash' emission) and cash in circulation. The interest rate policy was to be used more. The refinancing rate was increased from 100% in April to 140% in June, 170% in July and 210% in September. The market interest rate (interbank credits rate on short loans and 3 months loans) increased in turn, thus making the operations of buying hard currency

using borrowed roubles unprofitable. Moreover, demand for roubles increased, because of current capital shortages.

'Technical' credits to the CIS countries were no longer issued. The currency reform, aimed at separating the Russian monetary system from the other countries of the rouble zone, was a step of vital importance for the economy and the forex market in particular. The pressure on the Russian money market was eliminated.

The change of the rules on the obligatory sales, the increased CBR control on the currency operations and changes in the MICEX regime of trading also had positive influence, having made the market more predictable. The MICEX started to trade US dollars every day, eliminating the fluctuations of initial supply and demand caused by the previous trade regime. Thus, there were several events, which changed the foreign exchange market significantly and led to the rouble stabilisation. However, Doronin (1994) argues, that the main influence on the rouble stabilisation and even appreciation in the second half of 1993 was caused by the balance of payments surplus and the increase in foreign exchange reserves.

Due to the exchange rate stabilisation in the middle of 1993 the exports profitability declined. According to Doronin (Ibid.) at the end of October 1993 the export profitability decline was 30-40%, compared with the mid-year figure. Meanwhile, the profitability of import increased. This caused additional demand for foreign currency at the end of 1993.

Subsidising imports through a multiple exchange rate ('multiple price recalculating coefficients') system led to an increased budget deficit. Domestic price growth caused a decline in the purchasing power of the rouble and its exchange rate. The depreciation of the rouble, in turn, caused a further growth of prices. This mechanism worked in three areas. First, prices of imported goods increased due to the rouble depreciation. Second, for the same reason the rouble price of exports increased, stimulating further growth in domestic prices. Third, the growing expense of debt service aggravated the problem of the budget deficit. The system of import subsidising coefficients was abandoned at the end of 1993, but this caused a further increase in the price of imports.

After the credit expansion during the summer, monetary policy become more strict in October and November. At the beginning of November 1993 interest rates turned positive in real terms for the first time since the beginning of the reforms. But in December 1993 the deflationary policy was again replaced by monetary expansion. CBR credits increased by 40% . The rise in inflation at the beginning of 1994 was stimulated by the increase in the money supply, which affected prices after a 4-month lag.

2.1.3 How the 'Black Tuesday' occured in 1994

Monetary growth was only 3% per month in the first quarter of 1994. From February 1994 inflation has been lower and the period of stabilisation was surprisingly long, from April (9% monthly) to June (6% monthly). However, in the second quarter monetary growth increased to 14% per month. The looser monetary policy was aimed at financing the budget deficit. This resulted in higher inflation in the third and fourth quarters of 1994. Despite the moderate money supply growth, real interest rates were positive, which made rouble assets worth holding. By April the real interest rates were among the highest in the world. Consequently beginning in

April 1994 the rouble has depreciated against the dollar at a slower rate than Russian prices rose relatively to American ones. It was more profitable to hold rouble than dollar deposits. Additionally, financial markets expanded due to the development of the market for government bonds, Vnesheconombank bonds, shares of banks and enterprises. This allowed some capital to be moved from the foreign exchange market, in order to be invested into other financial instruments.

In the second half of 1994, the ratio between the inflation rate and the exchange growth started to change. In September the increasing prices put exporters in a difficult position. For instance, prices on grain, oil products, ferrous metals and aluminium were above the world average prices, making Russian producers uncompetitive. The only possible way to solve the problem was a change in relative domestic prices due to the rouble depreciation. They could not reduce costs of their production, because there was no money for restructuring.

The seasonal increase of the credit emission should be taken into account as well. This happened due to the additional credits given during the summer to agriculture and others aimed at financing goods delivery to Far North regions. The government also approved the credits for conversion and structural changes of selected enterprises. This resulted in higher inflationary expectations in the market.

The foreign exchange market reflected the changes in the priorities of government economic policy. Financial markets at that time were unstable. The relatively low yield on accumulated capital and the coming deadline for submitting quarterly balances resulted in more activity at the foreign exchange market. There were three relatively sharp increases of the dollar exchange rate at the MICEX on September 22, September 27-28 and October 5, 1994. On October 11 the MICEX trade session resulted in the 27.43% leap of the dollar from 3081 to 3936 Rb/$. This was considered as the rouble collapse and thus called 'Black Tuesday'. However, in two days the dollar exchange rate was lowered to 2994 Rb/$ as a result of CBR interventions (estimated as $150 million).

The CBR stopped intervening at the MICEX at the end of September, in order to let the exchange rate increase. At this time about half of the expected tax payments had not been received. The problems of increasing budget deficit and the necessity to pay off government debts (wages and payments for agricultural products in particular) could have been solved by selling part of the foreign exchange reserves of the Ministry of Finance at a high rate. That was done on October 10th (the MICEX exchange rate was 3081 Rb/$). In addition, the federal budget for 1994 was based on the estimated exchange rate 3000 Rb/$ at the end of the year (*Commersant weekly*, No 39, 1994). Therefore, the dramatic fall of the rouble was mostly the result of the government and the CBR manipulations of the exchange rate aimed at solving the economic problems they faced.

After the crisis the rouble declined steadily, managed by the CBR as before. The inflation rate exceeded the dollar growth rate, however the CBR was unlikely to allow the dollar to grow faster. There were two more reasons limits to this growth. First, a considerable part of the speculative capital was put into dollars, thus limiting the supply of roubles. Secondly, according to the new rules commercial banks were obliged to reserve roubles on the special MICEX account before trade sessions. This stabilised the supply of roubles at the MICEX partly due to the capital flow from the MICEX to the interbank foreign exchange market.

The period 1992-1994 was the time of growing inflation, falling industrial production and continuous rouble depreciation, punctured by periods of relative stability. A kind of one-year cycle caused by permanent changes in the monetary policy can be distinguished within this period. A tight monetary policy is started usually at the beginning of a year (often under the pressure from IMF, in order to receive further credits), the Russian government then has to give it up and increase emission in the second half of the year, in order to solve debt problems in the economy and cover the budget deficit. Summer is usually the time for temporary stabilisation, the last quarter of the year is a time for a leap (or even for a crisis) in the foreign exchange market. Seasonal factors seem to contribute to this picture: regular centralised credits given to the agricultural sector and the Far North regions in particular tend to increase the money supply. Also at the end of each year banks prepare their annual balances, thus increasing the supply of foreign currency by sales from their reserves.

While the foreign exchange market was developing, the volatility of the exchange rate in constant prices was decreasing and the rate of its growth became closer to the rate of inflation. It is possible to suggest that the changes in the exchange rate are caused mainly by monetary factors. Moreover, the CBR policy in 1993-1994 in general was directly aimed at keeping the exchange rate volatility in line with the changes in current inflation. In 1994 the rouble pace of decline was far slower than the inflation rate. In the first half of 1995 the currency was slipping by about 10% a month, about equal to inflation.

2.1.4 Decline of the dollar in 1995 - first signs of stabilisation or seasonal adjustment?

Cutting inflation was one of the main economic policy tasks during the years of the reforms. However, the government was not very successful. Slowing down of the price growth up to 7-8% monthly during summer 1994 had been considered as a good sign. However, since August 1994 inflation grew faster. In the third quarter of 1994 the increase in the inflation was caused mainly by monetary factors. In the end of 1994 monetary policy was tightened once again. In the fourth quarter of 1994 and the first quarter of 1995 price growth was caused by the inflationary rise in costs of production.

In 1995, however, there were certain changes in the economic trends. Money supply was cut in January 1995 by 12%. Even though the state budget for 1995 was planned to have 6.5% deficit, the goal of pushing down inflation to 1-2% monthly by the end of the year was announced. During the first half of the year inflation slowed down and the dollar exchange rate stabilised and even declined.

In mid-January 1995 the CBR announced new stricter limitations to be put on banks' open currency positions (30% less than previous ones). This led to the rising attractiveness of the Minfin foreign exchange obligations (VEB). The attractiveness of them can be explained in the following way. If these obligations are bought for roubles, they are considered as a rouble asset, which has nominal value in dollars.

Consequently, interest rates on private deposits in commercial banks increased in the end of January and beginning of February. In April CBR changed the reserve requirements for commercial banks. Then banks started to sell large amounts of hard currency to meet new requirements. CBR was forced to purchase dollars, which led to the increase in the money supply since April 1995. This increase in the money supply

softened the effects of tough monetary policy. This could be seen from decrease in the interbank interest rates on loans and non-existence of seasonal slow down in the consumer price index growth.

During the first quarter of 1995 the dynamics of the exchange rate was consistent with the dynamics of domestic price growth. Meanwhile, real interest rates became positive at the beginning of 1995, which allowed investment in rouble deposits to remain more attractive, than hard currencies deposits. In the second quarter interest rates were declining. MIBOR for 3 months loans was 160-175% annually in the beginning of April, by the end of May it was 115-125%.

The dynamics of producer and consumer prices became closer in 1995. During the first months of 1995 producer prices grew faster than consumer prices. The average growth of the CPI was 12-13% monthly. In the second quarter of 1995 the growth of producer prices began to slow down, however, the increased costs were reflected by the increasing consumer prices.

The experts of the National Economy Forecasting Institute estimated that at the beginning of 1995 increase in production costs explained 40% of inflation; monetary factors explained 15-20% (*Finansovye Izvestia,* No 36, 25 May 1995, p. 3). In the first half of 1995 structural inflation took place, it was mainly caused by the high costs in the producers sector, who tend to increase prices higher than the world level but not rise their effectiveness of production. In order to struggle this type of inflation, it is not enough to tighten monetary policy. Structural changes in the economy are of vital importance, however there is no money for these. Limited demand cannot stop consumer prices growth. However, it influences the exchange rate growth.

The number of liquid assets was limited to three basic instruments in the first half of 1995. These were: foreign exchange, governments bonds and inter-bank loans. Due to the macro-economic instability, the bulk of the financial transactions was short-term.

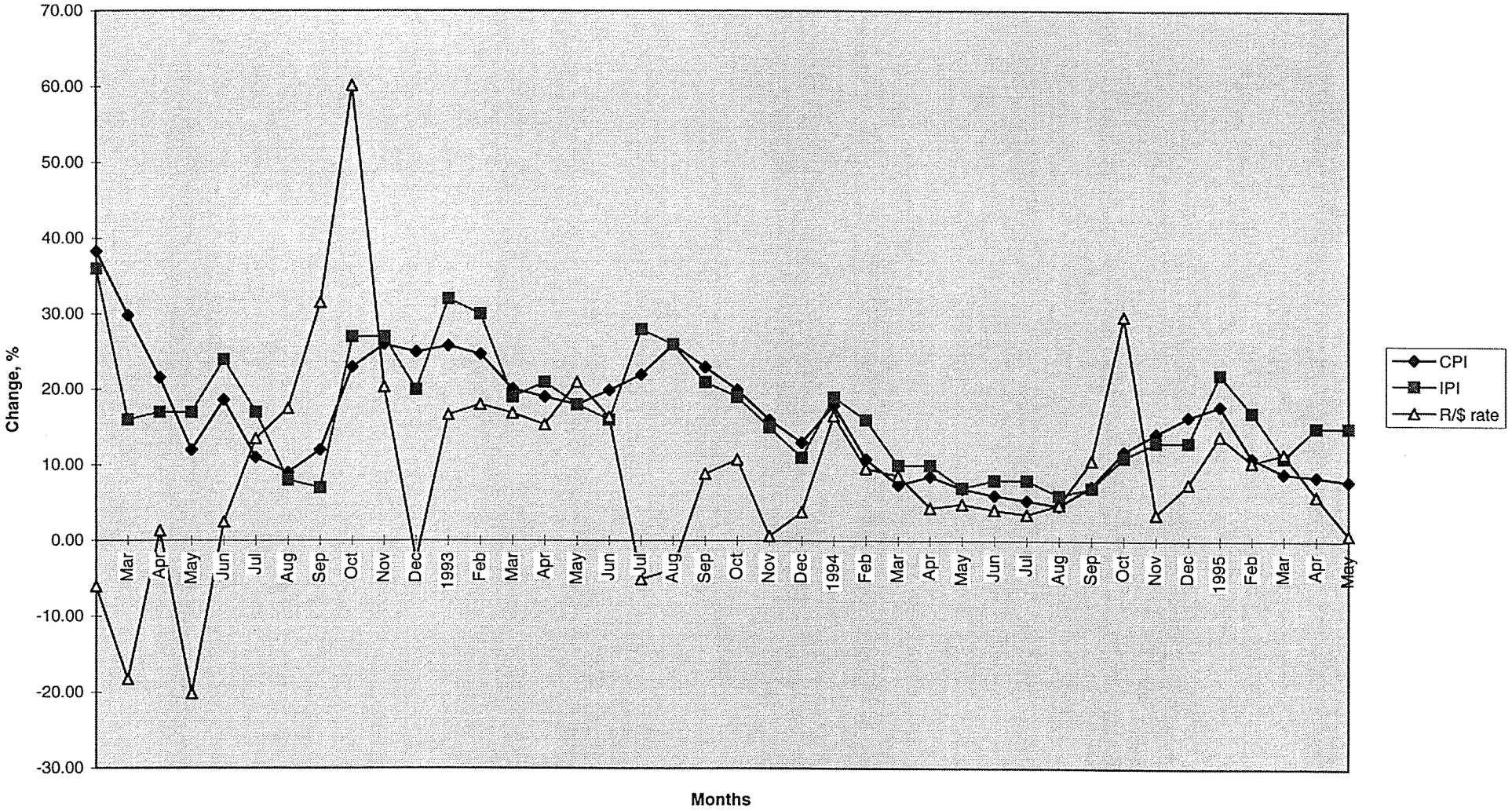
In April there was a tendency of decreasing rates of return from financial operations on different markets, at the same time there were high fluctuations in rates of return. Capital movement between different financial markets was more intensive. At the foreign exchange market the decrease in the average rate of return was more than for the other financial instruments. This resulted in substitution of foreign currency assets by rouble assets.

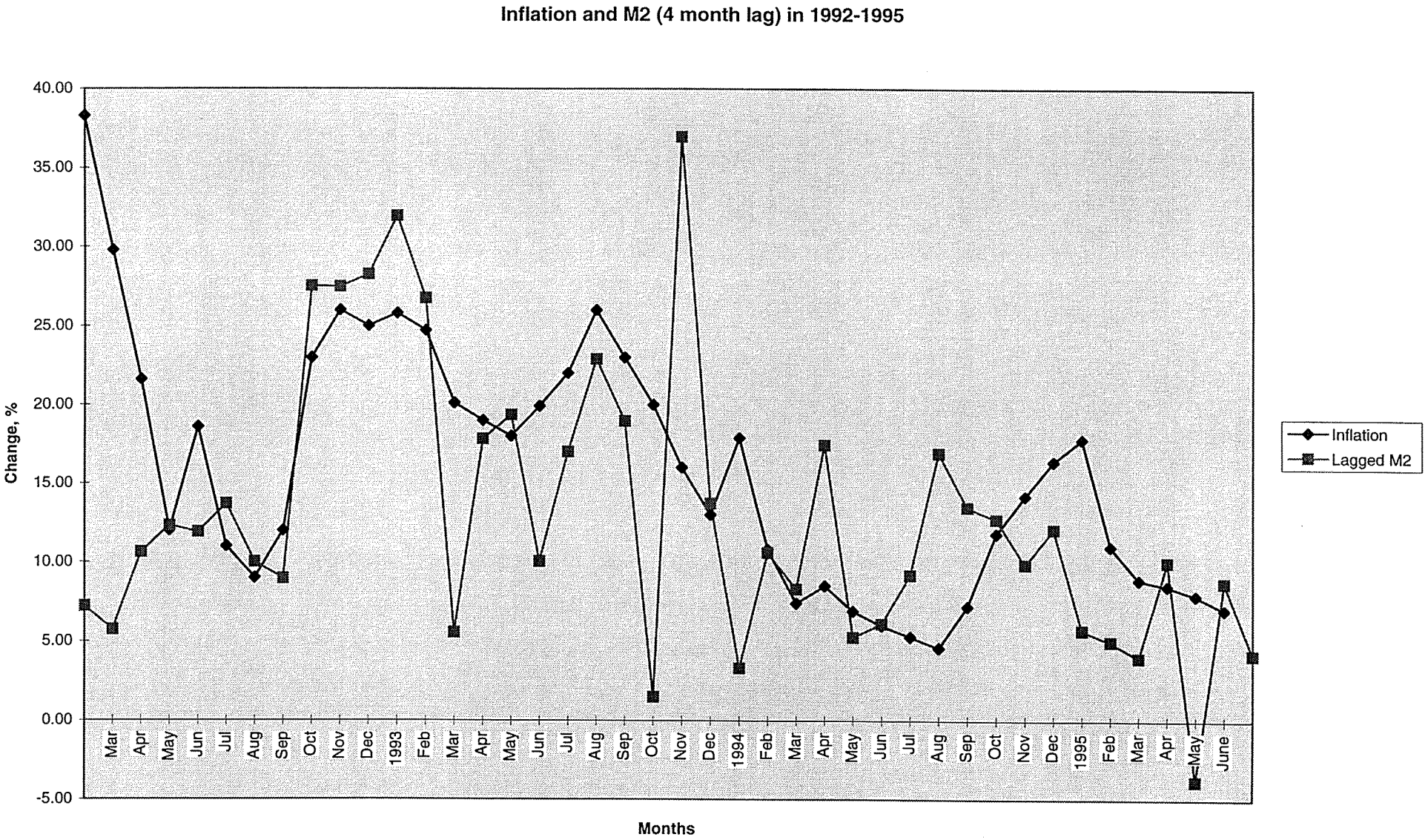
Hard currency sales of banks, enterprises and population also influenced inflation. Hard currency savings are not included into the money supply. Therefore, sales of hard currency lead to increase in the rouble money supply. The estimated growth of the M2 in April and May 1995, caused by the hard currency sales, was 5-7%.

The estimated ratio of demand and supply of dollars at the MICEX was 1 to 2.5 in April (*Finansovye Izvestia,* No 33, 16 May 1995, p. 3). CBR's rouble intervention helped to avoid sharp decrease of the dollar-to-rouble exchange rate.

In the first quarter 1995 the ratio between domestic and world prices was caused by the uneven growth of prices for different goods and fluctuations of the world prices caused by decline of the dollar on the international markets. However, the role of exchange rate factor was not significant, as the dollar exchange rate growth was about equal to the inflation rate growth. It was 8.9% in March (*Ibid.*).

Changes in CPI, IPI and exchange rate, 1992-1995




Inflation and M2 (4 month lag) in 1992-1995
Change, %
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
1993
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
1994
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
1995
Feb
Mar
Apr
May
June
Months
Inflation
Lagged M2

In April the dollar exchange rate growth was only 4.5%, and the inflation rate was 8.5%. The difference between the two rates was quite significant. In the second quarter 1995 the influence of the exchange rate factor was more important for the ratio of world and domestic prices. The growth of prices was 4-5% in April and 9-10% in May, if denominated in dollars. It was more visible in the consumer sector, where food prices growth was indicated for half of the goods in January 1995 and for all imported goods in May 1995.

Rouble exchange rate corridor was announced by the Russian government on July 5, 1995. In a move to curb inflation and stabilise the rouble, the Russian government and Central Bank restricted the float of the rouble against the US dollar. The measure, effective for the period July 6 - October 1, 1995, set a ceiling of 4300 roubles and a floor of 4900 roubles against the dollar. This gives possibility for changes in either direction within the limit of 300 roubles or 6.5% approximately from the average. The dollar exchange rate was 4559 Rb/$ on June 5, 1995.

By declaring the rouble corridor, the CBR was committing itself to the unlimited purchase and sale of dollars on the foreign exchange market to support the rouble within set limits. The exchange rate corridor, the first in Russian history was backed by $10 billion in CBR reserves.

Such a move could have create more predictability for foreign investors and some exporters. However, inflationary pressure on the rouble could cost the CBR much of its currency reserves, the new higher rate for the rouble will make some Russian products less attractive to foreign buyers, and a failure to maintain the rouble could trigger economic and political crisis.

The decision to maintain the rouble-dollar exchange rate within a fixed range is likely to lead oil and gas producers to sell more on the domestic market rather than to seek profits abroad; however it can hurt at least some exporters (aluminium industry, etc.) Taking into account the export orientation of the Russian economy, this step can met serious resistance.

2.2 Foreign trade and the balance of payments

During the period of transition Russian foreign trade changed dramatically. This happened due to the economic crisis in Russia. The dissolution of the COMECON and the Soviet Union contributed significantly to this change. The break-up of the rouble zone together with the above mentioned circumstances changed Russia's trade partners.

A crucial part of the Russia's economic reforms was re-opening of the economy. Table 3 in the Appendix presents the regional structure of the Russian foreign trade. The share of industrial countries increased between 1991 and 1994. In 1994 the share of industrial countries was 67% of Russian exports and 69.2% of Russian imports. Table 6 (Appendix) shows the top ten Russian trade partners. The most important among them were Germany, USA and UK. Therefore, the relative importance of the US dollar and the German mark on the Russia's foreign exchange market was based on the role of these countries in Russia's foreign trade.

In 1994 Russia's trade share with Ukraine and with Belarus was 10.5% and 5% respectively. Ukrainian share of imports from Russia was much more: 65% of gas

and 90% oil came in 1994 from Russia (*Finansovye Izvestia* No 42, 20 June 1995, p. 3).

During last three years Russia maintains stable positive trade balance. This means foreign currency inflow was taking place. At the same time the dependence of the economy on the loans from abroad (from IMF, World Bank, London Club, Paris Club, etc.) is strong. Russia's debt to industrial countries exceeded 130 bn dollars in 1995 (it was only 60 bn in 1990).

The state's monopoly of foreign trade has been abolished since 1991. However, strict government regulation including non-tariff methods of regulation of the main exports and imports still is in force. The main points of these regulations are summarised below.

2.2.1 Basic foreign trade regulations

During the process of transition the Russian economy became more dependent on exports of raw materials, oil and oil products. Consumption and exports of these goods were regulated by the government. Their prices had been fixed and revised from time to time.

The institution of 'special exporters' was introduced in early 1993. Under this system a limited number of firms have the right to export 'strategic'(the most important for the economy) goods. Export contracts were sold by the government to the highest bidder. These exports were administered by special authorised trade organisations. The system replaced the former 'budget' system, under which special state trade organisations bought goods at one price and sold them abroad at a higher price. 'Centralised exports' were introduced in 1993 in order to guarantee the repatriation of export earnings and to increase the state revenue.

For instance, 'strategic' goods were crude oil, oil products, natural gas, non-ferrous metals, which were demanded on the foreign markets. Export quotas were imposed for these goods in order to limit the amount exported, depress their relative price and increase the domestic supply of these goods. Total quotas were allocated to 'centralised exports', to regions and producers or sold through quota auctions. Quotas were not fully used in 1993. This phenomenon can be explained partly by the agreement with the EC on a voluntary export limitations on non-ferrous metals adopted at that time. On the whole, export quotas were lower in 1994 and they were abolished on July 1 1994 for all commodities except oil. Simultaneously all export tax benefits for energy exporters were cancelled. Import tariffs were raised at the same time, including for the first time tariffs on food.

From January 1995 exports of crude oil and petroleum products were freed from quotas and licensing. This was the end of quota regulation of exports. However, the system of 'special' exporters was preserved.

Export taxes were aimed at providing the state with revenue and at increasing the domestic sales of export goods by holding down their domestic price below world prices. The current export system was introduced on November 1, 1993. In 1994 the export tax for oil was lowered from 30 to 23 ECU per tonne. According to the Law 'On Custom Tariffs', operating since the beginning of 1994, all export taxes are to be abolished by the end of 1995. All tax exemptions for oil exporters were cancelled in 1994.

Import subsidies for so-called 'vital imports' (i.e. food, goods for children, medical equipment, medicines, etc.) financed from the state budget have been completely abolished since the beginning of 1994. New import tariffs were to be introduced in March 1994, however they were only implemented in July 1994 due to public opposition. Food tariffs had been aimed at protecting the agricultural and industrial sectors, but they were affecting the consumer sector.

In June 1995 the World Bank granted Russia a second loan worth $600 million to help finance imports. The agreement was reached with the IMF to assist Russia with economic reform. It calls, above all, to free trade, abolish quotas and export licenses, reduce tariffs and streamline fuel export procedures (OMRI publications, June 8, 1995).

2.2.2. Foreign exchange control and obligatory sales of export earnings

Facing the problem of capital flight and hidden revenues, the government tried to introduce stricter control over commodity and cash flows from the beginning of 1994. There are two controlling systems in the field, both based on the Customs Service database. First, the Unified Control System of the Ministry for Foreign economic relations, deals with special exporters. This system involves quotas and licenses, and reporting contract prices. Second, the system of foreign exchange control is under the supervision of the Central bank and the Customs Committee. All exporters are controlled under this system, and the task is to compare the declared value of the contract and actual exporters' revenues.

Regardless of the form of ownership, all the enterprises must sell 50% of their hard currency export earnings on the currency exchange markets. Before July 1, 1993, they had been obliged to sell 20% of export earnings on currency exchanges and sell 30% to the hard currency reserves of the Central Bank directly. This change was made to ensure the liquidity of the currency exchange market.

There are certain inflows of hard currency from non-residents which are not considered as export earnings. They are: loans and deposits, as well as interest received on them; and payments for the securities which have been sold and dividends; payments made in order to form the own capital of a firm or an enterprise.

An exporter must open two accounts in an authorised bank. The first one is called a 'transit' account used for the depositing all foreign currency earnings. The obligatory sales are made by the bank on behalf of the exporter from the 'transit' account. After that the remainder of foreign currency earnings is transferred to the second account, which is a current account of the exporter.

Therefore, an authorised bank is responsible for the selling of the 50% of exports earnings and it controls these sales. The new mechanism of currency control was introduced at the beginning of 1994. From January 1, 1994 the export of 'strategic' raw materials was regulated by the new Central Bank and Customs Committee instruction "On the order of the currency control for the export earnings coming to the Russian Federation". Since March 1, 1994 all Russian exports have been regulated by this instruction. The new mechanism of currency control involves all commercial banks as well as the Central Bank. The latter became the main regulating body in the currency control area and the role of the CBR in control over repatriation of the export earnings increased significantly. Commercial banks became official agents of the state currency control. They are obliged to submit any

information concerning export operations required by the Customs, the Unified Control system, the CBR or the Office of public prosecutor of the Russian Federation.

2.2.3 Balance of payments and the rouble exchange rate

The Russian balance of payments is presented in Table 8 of the Appendix. After running a $10 billion trade surplus in 1991, Russia's trade balance slipped into deficit in the second quarter of 1992. Exports fell, imports (financed partly by the foreign aid) rose due to the artificial appreciation of the rouble. The trade surplus in the second and third quarters of 1992 was not large, however, in 1992 Russia had positive trade balance ($4.2 bn). There was current account deficit of $1.3 bn (see Table 8 of the Appendix).

Trade liberalisation led to an increase in Russian exports. On the other hand, a substantial reduction in import subsidies resulted in a reduction of monthly imports. In 1993 Russia was running a substantial current account surplus (about $11 bn). Thus Russia was lending to the rest of the world. The stabilisation of the nominal exchange rate in mid-1993 and its appreciation in real terms led to increasing competitiveness of imports and caused import growth (see Table 5 of the Appendix). In 1993 the Russian terms of trade index was 85.3 (1992=100) which means a worsening of the terms of trade for Russian participants. The decrease of import prices only partly reduced the negative effect of the fall in export prices (Russian Economic Trends, Vol. 3, No 1, 1994, p.95).

The growth of exports and imports in 1995 is estimated to be 7.4% and 9.5% respectively (*Finansovye Izvestia,* No 27, 18 April 1995).

The precise estimate of the balance of payments surplus is arguable. IMF experts think that Goskomstat data systematically undervalued exports (the published figures are about 25% less than the true ones) and imports (about 50% of the true figure) (The Economist). The unregistered trade is significant, and in 1993 it added about $6 bn to imports (Russian Economic Trends Vol. 3. No 4, 1994, p.65).

Capital movement from and to Russia is limited, as well as inside the country. Russian market is characterised by isolation of its parts and regions, undeveloped infrastructure and communications. Russian residents can move capitals out of Russia only illegally, or semi-legally. Non-residents can repatriate profits, however there is a lot of conditions set. Foreign investment is small.

The data presented in the Table 2 of the Appendix show, that in 1994 the Russian trade surplus was 1 bn dollars higher than the year before ($12.3 bn). Between 1992 - 1994 the trade balance was positive, even though it has not improved the position of the rouble. Presumably without the trade surplus the rouble depreciation could have been much more. The positive trade balance can be explained by the existing significant differences between world and domestic prices. Balance of payments and trade balance with the CIS countries is positive as well. However, this can be explained by the insolvency of the CIS countries.

According to Makarevich (1995), Russian trade balance was positive for the following reasons. The repayments of the foreign loans have been postponed; the consumption of export goods is limited artificially. Import is more and more limited, mostly by increasing import tariffs. The government's aim is to keep trade balance positive, as a sign of working reforms.

III. How the foreign exchange market is organised

In this part the structure of the Russian foreign exchange market is shown, with particular stress on the role of currency exchanges. The other parts of the market, such as the interbank off-exchange market, black market, market for foreign cash, and, finally, markets for forward and futures contracts are discribed.

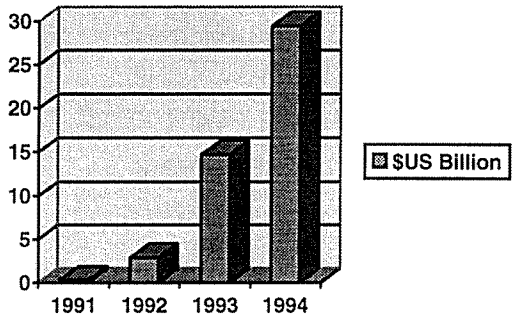
3.1 Currency exchanges

The role of the currency exchanges in Russia's foreign exchange market is determined by the obligatory sales of the 50% of export earnings, which is done through currency exchanges. Besides, the CBR's influence on the dollar exchange rate is provided by its operating at the currency exchanges.

There were two currency exchanges registered in 1992, six in 1993 and eight at the end of 1994. Currency exchanges provide diversification of the market involving new foreign currencies and new financial instruments. New forms of trading were introduced, for instance, modernised fixing trade on the German mark at the MICEX. Commercial banks operating at several currency exchanges simultaneously could make arbitrage, possible due to the differences between the exchange rates of regional exchanges.

Figure 1 presents the growth of the currency exchanges turnover between 1991-1994. At the first stage of the foreign exchange market development the main source of the hard currency supply was export earnings. In 1992 only 30% of these earnings were sold at the currency exchanges, compared with 50% in 1993. The other reason for the increase in turnover increase was the appearance of new currency exchanges.

Figure 1. Officially registered turnover on Russian currency exchanges in 1991-1994



Year	*Total currency turnover $US million*
1991	0.280
1992	2.862
1993	14.711
1994	29.434

Source: *CBR, Voprosy ekonomiki* No 1, 1994, p.61 and *Finansovye Izvestia* No 23, 1995.

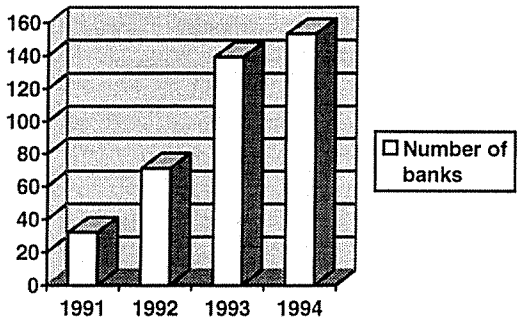
In 1993 approximately 40% of the foreign trade (excluding FSU) was conducted according to the interstate agreements, i.e. that was barter trade (Doronin 1994, p.10). Later the share of barter trade declined, thus more foreign exchange was sold at the currency exchanges.

Table 14 in the Appendix presents turnover on Russian currency exchanges in 1992-1993. For 1992 trade volumes of the Moscow and St. Petersburg currency exchanges are shown, as all the others have been found later. The share of the CBR's participation (sales and purchases) is indicated.

3.1.1 The role of the Moscow Interbank Currency Exchange (MICEX)

The Moscow Interbank Currency Exchange is the principal exchange. The number of the banks which are members of the MICEX increased from 32 in 1991 to 71 in 1992, it was 139 at the end of 1993 and 153 in 1994. Normally about half of them (80 banks approximately) participate in a trade session.

Figure 2. Number of the MICEX members in 1991-1994



Year	*Number of banks*
1991	32
1992	71
1993	139
1994	153

The MICEX turnover increased rapidly in 1992 and 1993. However, the growth of the turnover was slower in 1994. This was partly due to the growth of the direct foreign exchange trade between commercial banks. In addition, a 0.1% tax on all MICEX transactions (net trades) imposed by the Moscow authorities from March 1, 1994, has encouraged a shift of trade to other currency exchanges. The share of the MICEX in the US dollar trade in 1993-1994 decreased from 85.7% to 80%, in the German mark trade it decreased even more - from 77% in 1993 to 45.6% in 1994. Quarterly figures for the US dollar turnover at the MICEX are presented in the Table 5 below.

Total commission charges at the MICEX are now 0.15%. It is higher than at the other places of currency trade (0.02% on average). Another factor discouraging the traders is the new policy on the mandatory surrender of 50% of all foreign exchange earnings. Each exporter is allocated to an authorised bank through which half of all its foreign exchange earnings must be sold (at the current MICEX exchange rate). Since many of these banks are outside Moscow, sales volumes on the regional currency exchanges increased.

After the 'Black Tuesday' the Central Bank of Russia introduced new temporary clearing rules at the MICEX. According to these rules, banks have the right to buy foreign currency only up to the amount of their deposits at the MICEX clearing accounts. This measure was taken in order to prevent the insolvency of the bank during the periods of high exchange-rate volatility. The commission charges are set according to their net turnover. Thus, net buyers and net sellers of foreign currencies are treated in different ways. In fact, real costs for banks at the end of 1994 were estimated to have increased by up to 0.4-0.5%, taking into account the interest rates on one-day deposits (90-120% annually) (*Commersant Daily,* No 241, 1994).

Another barrier to speculation is set by linking the possible volume of transactions to an amount equal to the bank's own capital. The existing rules stimulate banks to supply hard currency based on their current requirements and the bids of their clients. All speculation is now conducted on the interbank market.

Table 8. MICEX US dollar turnover in 1991-1994; Russia's quarterly exports and imports

Years and quarters	*Turnover, $ million*	*Increase to the previous quarter/year, %*
TOTAL 1991	280.02	-
1992 Q1	150.53	-
Q 2	456.27	203%
Q 3	967.38	112%
Q 4	1213,84	25%
TOTAL 1992	2778.02	892%
1993 Q1	1496	66%
Q 2	1746	16.7%
Q 3	4692	169%
Q 4	4814	2,6%
TOTAL 1993	12748	359%
1994 Q1	4997	3,85
Q 2	3642	-27.1%
Q 3	8832	143%
Q 4	6061	-31.4%
TOTAL 1994	23532	85%

There is one more detail brought by the new mechanism of trade. It is unprofitable to buy hard currency at the beginning and at the end of the week because the capital (roubles) is put out of circulation at the weekend. Consequently, the exchange rates increase on Monday and Friday less than on other days and this seems to slow down the exchange rate quotations growth systematically.

In June 1995 some new trade regulations were introduced at the MICEX. The sellers of hard currency must transfer money for clearance at the *same* day. The buyers do the same next day as before. Deals are made within the limit of bank's own currency reserves. Additional insurance funds was created. Banks, which are members of the MICEX, made a contribution of $20 thousand each, the MICEX' contribution was $2 million. The 10% limit of the exchange rate change during one trade session was introduced.

After the market adjusted to the new stricter regulations, the next step of the CBR was introduction of the 'soft-peg' or semi-fixed rouble/dollar exchange rate. The exchange rate corridor was already discussed in the second part of the paper.

All the regions are represented by the MICEX trade participants. During 1994 the number of subsidiaries and branches of regional banks taking part in the sessions on the US dollar increased by 75% to about 40. The turnover of regional banks increased in absolute value. However, their percentage of dollar sales decreased from 7% in 1993 to 4.3% in 1994, and the share of purchases decreased from 5.2% in 1993 to 2.9% in 1994 (*Finansovye Izvestia* No 22, 1995). The information about the regional banks' direct participation presents one side of their activity at the Moscow foreign exchange markets. Many regional banks use their corresponding accounts with Moscow banks in order to trade on the MICEX. In total, their share of the Moscow market was estimated as 10% at the beginning of 1995. At the same time Moscow banks started to take notice to trade at the regional currency exchanges. Their participation is more significant,

according to some estimates Moscow banks cover 25-45% of the trade at the regional currency exchange markets (Ibid.).

3.1.2 Regional currency exchanges

Regional currency exchanges appeared due to the differences existing in the regional economies, in the banking activities in particular. There were certain problems with the capital transfer because of ineffective and undeveloped means of communications. As a result, regional currency exchanges operate relatively independently in different environments. Until 1994 the activities were largely co-ordinated by the CBR.

In the future, diversification of the financial instruments traded and the degree of competition between existing exchanges in the quality of their services provided is more probable as their number grow.

There were seven regional currency exchanges at the beginning of 1995. General information on them is presented in Table 9 below.

Table 9. General information on regional currency exchanges

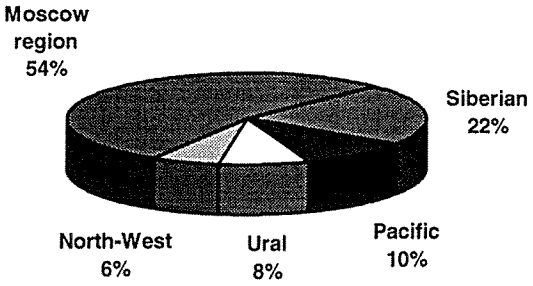
Currency Exchange	Start of trade	Founders	Number of members in 1993	Currencies traded	Number of trade sessions per week
St.Petersburg Currency Exchange	1992	11 banks	55	$ DM Finnish mark	daily 2 1
Ural Regional Currency Exchange	24/09/92	7 banks and the CBR		$ DM	3 3
Siberian Interbank Currency Exchange	27/11/92	39 banks	51	$ DM	daily since 1/11/93
Asian-Pacific Interbank Currency Exchange	15/02/93	na	35	$ Yen	3 2
Rostov Interbank Currency Exchange	28/05/93	na	15 banks and Moscow banks' subsidiaries	$ DM	2 2
Nizhny Novgorod Currency & Security Exchange	1994	na	-	$	na
Samara Interbank Currency Exchange	1994	na	-	$, DM, Fr Fr Swedish krona	na

Source: Doronin 1994

At the first stage of their development regional currency exchanges did no more than establish and improve the trade of foreign exchange. The next stage was their conversion into universal financial institutions, trading other financial instruments (futures foreign exchange contracts, interbank credits, government bonds and other securities).

Co-operation between currency exchanges started to develop. The Association of Russia's Currency Exchanges (*ARVB*) was founded on November 27, 1993. One of the aims of this union is the creation of a uniform financial market.

Figure 3. Estimated distribution of foreign exchange deposits of enterprises in commercial banks of five regions (Doronin 1994).



The distribution of foreign exchange deposits does not depend on the degree of export activity in a particular region. It seems to depend mainly on the capacities of the regional commercial banks, their possibilities of effective capital usage (both roubles and foreign exchange). Therefore, the Central region (Moscow and Moscow *oblast*) being the main financial centre of Russia with more developed infrastructure, is more attractive for operating for banks and their clients.

3.2 Off-exchange interbank market

The 'Interbank market' is defined as direct interbank trade outside the currency exchanges, even though the currency exchanges are interbank markets as well. Nevertheless, the off-exchange market is referred to as 'interbank'. The turnover of this sector of the forex market became significant in comparison with other financial markets in 1994. In Moscow about 100 commercial banks operate on the interbank market every day. About half of them started to participate at this market in 1994 (*Commersant Daily* No 241, December 20, 1994). The active development of the market began as a response to the CBR policy at the MICEX which limited possibilities for speculation.

The daily turnover of many banks is more than the daily turnover at the MICEX (from 30 to 300 $ million for selected banks). Large banks mostly trade on their own, their clients' bids do not exceed 5%. Small and middle-size banks make transaction on behalf of their clients.

Table 10. Selected operators at the interbank market

Name	*Daily turnover $ million*	*Commission charges*	*Number of banks*	*How transactions are made*
Intermoney	30	0.02%	100	Reuters
Interbank Financial House (*MFD*)	10	0.01-0.04%	20	By phone
ADIKS	6	0.02%	50	By phone

Source: *Commersant Daily* No 241, December 20, 1994

In December 1994 the types of transactions were as follows. The most significant were dealings 'tomorrow' (up to 55% of the total turnover). In this case the currency is to be delivered the next day. In second place were 'today' transactions with same-day delivery (up to 35% of the total turnover). This ratio is explained partly by the imperfect system of clearing. Banks can trade 'today' contract only till lunch-time. In

last place are the spot contracts (10 to 20%) with the delivery on the second working day after the dealing.

The ratio of these types of transactions is not constant for any bank. It depends on the position of the bank at the market. Usually smaller banks participate in the currency exchanges' trade and large ones trade at the interbank market. The priorities depend on the current difference between the exchange rates in both parts of the forex market.

The high profitability of the interbank market is based on the fluctuation of the exchange rate within one day. Moreover, banks use the difference between the MICEX exchange rate, and the interbank quotations. The CBR has taken part in the interbank market trade since Spring 1994.

3.3 Black market and 'cash' market

The black market for hard currencies (the US dollar and the German mark in particular) existed long before the appearance of the legal currency exchange market. It was a significant alternative to the official market during the first stage of its development. The black market exchange rate was usually more flexible than the official one, more responsive to the changes in the economic situation. Sometimes its level of the exchange rate was more attractive for large market operators. For a long time it was the only possible place for people to convert roubles into dollars.

However, in 1993 the black market or 'street' traders had to compete with the currency exchange offices opened by commercial banks. The more offices there were, the less was the attractive the black market became. Risky by its very nature, it no longer had the advantage of higher exchange rates. Since the end of 1992 the black market rate followed the MICEX exchange rate, and there was almost no difference between this rate and the rate at exchange offices, where foreign cash can be exhcnaged. As the officially licensed exchange offices were more competitive, this resulted in an almost total disappearance of the black market by the end of 1993.

The 'cash' rate was usually higher than the non-cash currency exchange market. This led to high profitability for the 'cash' transactions. The average difference between 'cash' and 'non-cash' rates decreased from 4% to 2% in 1994. By the end of 1994 there were more than one thousand of the commercial banks' exchange offices in Moscow (*Commersant Daily*, December 24, 1994).

Apart from these offices, created for providing operations involving physical persons, i.e. the population, The United Currency House (*OVAD)* was created in mid-1994. It conducts daily trade sessions of US dollars in cash and this trade is aimed to meet the demands of legal entities, which are big participants of the forex market. The rate of the *OVAD* sessions became a basic indicator for the whole 'cash' foreign exchange market. After one month of regular trade the turnover was about $25 million, in the end of 1994 the monthly turnover increased to $150 million. The appearance of such a big trader put off a significant number of intermediaries in this market, because it established direct links.

There are almost no automatic exchange machines (in fact, there were five in Moscow at the end of 1994), and they provide the exchange of hard currencies into roubles. However, transactions in the other directions are still more popular.

In 1994 the market for foreign cash became a significant part of the foreign exchange market in Russia. However, according to Doronin (1995b) 70-80% of the

trade is taking place in Moscow region. The estimated turnover of the market in 1994 was close to that of the interbank market. It was approximately $25-30 billion, that is three times more than in 1993 (Ibid.). The structure of supply and demand in this market is presented in Table 11.

Table11. The supply and demand for the foreign exchange in cash in 1994 ($ billion)

SUPPLY		DEMAND	
	$ Billion		$ Billion
TOTAL	27-30	TOTAL	27-30
Imported by commercial banks	21-22	Bought by Russian residents (individuals)	21-22
Imported by individuals	4-5	Bought by 'shuttles'	3.5-4.5
Sold by the population (of previously bought stock)	2-3	Bought by residents of CIS in order to take hard currency out of Russia	2.5-3.5

Source: Doronin (1995b), based on the CBR estimates.

The main supply came from commercial banks, which get foreign exchange from their corresponding accounts abroad. The data on this are registered by the CBR. Other figures are approximate, in so far as not all foreign cash is declared when crossing the Russian border.

Neither is there information about the import of declared foreign cash. The sales of foreign cash previously bought were estimated using data on transactions made at the exchange offices, for purchases in shops. Comparing the figure indicating the sales of hard currency made by the population with the purchases, it is possible to conclude that the main part of foreign exchange bought is used for saving. Purchases by the CIS residents are significant, despite the fact that these transactions are prohibited by the CBR. This can be explained by the fact, that Russian rouble became less attractive for the residents of the former Soviet republics, even though it is traded at the foreign exchange markets of these states.

3.4 Forward and futures markets

Financial futures market emerged in Russia by the end of 1992 when trade in contracts in US dollars started at the Moscow Commodity Exchange (MCE) and at the Moscow Board of Trade. The establishment and successful development of the currency futures market was based on the formation of the national foreign exchange market with the commonly accepted single exchange rate. According to Yakovlev and Bessonov (1994), there were two important pre-requisites, that made the dynamic growth of this sector possible. First, sharp fluctuations of the dollar rate in a situation of overall upward tendency, which created broad possibilities for speculative transactions. Second, the existence of large-scale entrepreneurial structures (former commodity exchanges which had lost their niche in the market) looking for a new area of development.

The two most successful structures which introduced US dollar futures contracts trade were MCE and the Moscow Central Stock Exchange (MCSE). Their monthly turnover in August and September 1994 exceeded $100 million. However, it is still much less than the turnover of the spot market. The participants of the trade at the MCE

include minor trading companies, formerly brokers, as well as major banks and other financial institutions. There were 77 members of the Settlement Chamber at the end of 1994.

The first futures contract at the MCE was over delivery of 10 US dollars and was traded for two months. According to the contract, the sum was to be supplied in cash. This type of contract has remained available at the MCE for more than 13 months since the beginning of the trade. A $1000 contract lasting three months was introduced at the MCE in November 1992. The terms of the contract included bank transfer delivery to the buyer's account. This type of contract was more successful, partly due to the possibility of speculation using the volatile ratio between the MICEX spot exchange rate and the Moscow banks' exchange rates.

In June and July 1993, the MCE attempted to introduce a contract over the dollar exchange rate index (defined as the ratio of the current MICEX rate to the 'base' rate of Rb1/$). The contract started from $1000 ande went up to $10000. No real currency was to be supplied, and the contract was to be executed by settlement in cash between traders who have not closed their positions. On the whole, this type of the contract turned out to be unsuccessful, because there was no liquid market for it. In December 1993 it was discontinued.

From the end of 1992 the ten dollar contract and one thousand dollar one started to be traded for two months, then for three(since April), four (July), six months periods (December) and nine-months delivery (March 1994). Trading sessions were held twice a week, then three times a week. In January 1994 the present, that is, four-day scheme of trading was introduced. Trading hours varied, depending on the number of simultaneously traded contracts of different lengths, and in view of a time shift with the MICEX trade session.

The minimum price change is set as one rouble per one dollar. The price fluctuation level during the floor session was changed several times. Before 27/09/93 the limit on the daily fluctuations was 30% of the previous quotation for any type of $1000 contract. After the 'corner' situation at the MCE on 29-30 September 1993, it was reduced to 8% of the daily quotation. From October 6, 1993 to August 31, 1994 the limit was set at 150 roubles from the previous quotation. Since September 1, 1994 the fluctuation limits have been 120 roubles of the previous quotation for the first month of trade and +20 roubles for every subsequent month, up to 280 roubles for the nine-months delivery contracts.

Methods of trading are different and depend on the rules of the particular institution organising the trade. At the MCE, a combination of classic 'open outcry' and modern electronic technology is used. An actual offer, made verbally, becomes effective when entered into the computer system and displayed on the electronic tableau in the exchange hall. All the offers are sorted by price, with ten highest bids to buy and ten lowest bids to sell displayed. If these 'best' supplied and demanded bids cross over, then the computer system registers the transaction automatically.

The system was first and foremost intended to be simple and convenient for small speculators and was optimal to start the market with. It disciplines the speculators, not allowing them to turn down deals in case of later unfavourable developments. This was important during periods of high volatility of the spot exchange rate at the MICEX in late 1992-early 1993. However, by spring 1994 there appeared to be technical limits to this technology of trading. Exchange operators could not physically exceed certain number of orders, thus putting a limit on the growth of the number of the transactions.

Yakovlev and Bessonov (1994) indicate three stages in the development of the futures market. At the initial stage of the futures market development (from autumn 1992 to autumn 1993) the turnover was insignificant (300-400 thousand dollars daily) and the pattern of quotations showed no correlation between the futures market and the other financial markets, including the spot one. The participants were mostly small and medium-sized trade firms. Most of them speculated cash currency at the 'black' market and the initially introduced cash futures contracts gave them a chance for additional gains while investing much less. Therefore, initially only speculators presented at the market. Hedgers appeared later.

One of the consequences of this purely speculative nature of the MCE futures market was that no re-distribution of risks occurred and no real profit emerged, as is supposed by the classical futures market with hedgers and speculators. All gains meant losses for somebody else. Thus steady gain from the trading on the market was possible only in the case of a permanent rotation of the participant, when the losers departed, being replaced by new participants. A serious obstacle for hedgers and banks was the great volatility of random fluctuations and the asymmetry of the market in the sense of the position of a big speculator. Due to the system of trading, any relatively large offer is exposed at once - and the price changes, usually unfavourable for this hedger or big speculator, because everybody else starts to play against it. The first hedger appeared at the market not earlier than at the end of summer, 1993.

The next stage (autumn 1993- spring 1994) was characterised by the inflow of new participants, such as banks, investment funds and other financial institutions. The trade volumes increased significantly (up to 1-1.5 million dollars daily at the end of 1993 and up to 2.5-3 million dollars daily in March 1994). The volatility of the contract prices (i.e. the futures exchange rate) was reduced. By the beginning of 1994, it was possible to see the emergence of two opposite groups of large speculators, which could no longer dominate the market and determine the prices without any coalition.

The third stage is distinguished by more links between the futures markets and the market for other financial instruments. This particular peroid is important because these links exist when all the markets work effectively and the investor can freely and quickly make any deal involving relatively large amounts of money without affecting the general price level at the markets. In respect of Russia it means that operations with spot currency, futures, rouble and dollar credits and rouble and dollar bonds should be of a sufficient scale and give approximately equal profits. Then the flow of capital between the markets takes place, However, in Russia it is possible only for banks or their 'favourite' clients. Due to their possibilities of capital transfer they can play on the difference between various financial markets, and, moreover, they buy futures contracts in order to insure themselves against unfavourable changes in the spot exchange rate. Therefore, this group of market participants act as hedgers. Such hedging is short-term but it has a strong stabilising effect for the whole futures market.

In March 1994 a futures market for dollar contracts was established at the Moscow Central Stock Exchange (MCSE). From the very beginning it became competitive with the MCE market by the trade volumes. A new technology of computer automatic trade was introduced here, fixing is made regularly (every two minutes). The daily quotation was calculated as the volume weighted average of all fixings.

The participants in MCSE trade sessions were different from MCE ones. The MCSE was more attractive for large banks and financial companies. The exchange rules offered them a more flexible system of guarantees, it was possible to use a bank deposit instead of real money. However, the risk increased. This was proved by the Autumn

1994 crisis of the MCSE trade, when the sharp change in the spot exchange rate made clearing impossible due to the shortage of deposits in the Exchange Chamber.

The forward market appeared in Russia much later than the financial futures market. In fact, forward market is part of the interbank off-exchange market, where the deals are conducted on the spot, 'today' and 'tomorrow' rates. This was not possible before 1994 due to lack of credibility between banks (and their currency dealers in particular). The electronic systems of dealing like Reuters's "Dealing 2000" or other systems, designed by banks and inter-bank organisations, appeared only in 1994.

IV. Diversification of the market

This part is describing most important foreign currencies traded in Russia, giving particular emphasis on the market for the German mark, as the "second best" after the dollar; and the Ukrainian karbovanets, as the most important among the 'soft' currencies. Different schemes of arbitrage, which are possible on the Russian foreign exchange market, are concerned.

4.1 Basic currencies traded on the Russian market

The US dollar was first to be traded on the Russia's foreign exchange market and it is still the dominant and most important currency. It is traded on all exchanges and the dollar turnover is the main part of the trade volume for all of them.

Table 12. Share of the regional currency exchanges in the whole foreign exchange market turnover of the US dollar and the German mark, %

	US dollar		*German mark*	
	1993	*1994*	*1993*	*1994*
MICEX	85.7	80.0	77.0	45.6
St. Petersburg	7.3	7.2	10.3	13.7
Siberian	2.4	3.5	4.8	2.5
Asian-Pacific	1.9	2.8	-	-
Ural	2.5	5.0	7.1	36.1
Rostov	0.2	0.6	0.8	1.2
Nizhny Novgorod	-	0.2	-	-
Samara	-	0.7	-	0.9
TOTAL	100	100	100	100

Source: *Finansovye Izvestia* No 22, 1995

Table 12 shows that the relative share of the MICEX trade declined both in respect to US dollar and the German mark. However, US dollar trade is still significant there, it was 80% of the whole market in 1994. In general, the marker for German marks is much smaller than for US dollars, and therefore, is less significant. For instance, in 1993 the trade in dollars at all currency exchanges covered 97.4% of the total turnover ($14720.8 million), whilst the trade in German marks was only 2.4% (Doronin 1994, p.13). However, it is the most important of the hard currencies in Russia next to the dollar as it is traded regularly at six exchanges. Other hard currencies traded regularly at Russia's currency exchanges are the Finnish mark, the Japanese Yen and the French franc.

The Finnish mark has been traded once a week at the St.Petersburg Currency Exchange since March 1993. Turnover is unstable, being affected by seasonal fluctuations, but has tended to grow. During 1993 36.38 million Finnish marks were sold, this amount is equal to approximately $6.33 million. The demand for Finnish mark is formed by tourists, 'shuttles' and the local regional importers of the North-west region. A significant part of the supply is provided by tourists coming from Finland. The

market for the Finnish mark is rather thin, there were only about 50 authorised banks trading it in 1993.

The Japanese yen has been traded twice a week at the Asian-Pacific Interbank Currency exchange since April 1993. In 1993 there 1321.4 million yen were sold, which is equal to approximately $12 million. The key feature of this market is high supply of yens which exceed the demand quite often. This is an indicator of the high level of activity of Japanese companies in the Pacific region, who need to exchange yen into roubles. The market is balanced by the CBR. In 1993 it bought 60-70% of the yens supplied (Doronin 1994, p.16).

French franc started to be traded at the MICEX on December 14, 1994, three times a week. The market appeared due to existing demand of companies, trading with France, however, it is still very thin. There are 2-5 banks trading each session. It is also traded at the Samara Currency Exchange. This currency exchange started later than other and tried to supply more variety of currencies traded (the Swedish krona and the French franc in addition to the dollar and the German mark which are traded almost at all other exchanges).

There are other hard currencies traded occasionally, for instance, the British pound. However, there is no real market for them yet, because of insufficient demand.

4.1 Market for the German mark

The German mark is the second currency by the volume of trade in cash, but its turnover is estimated to be about ten times less than the dollar sales at the off-exchange market. The volume of trade at the currency exchange is even less than the cash turnover, Nevertheless, the market for the German mark is liquid and has a circle of its own dealers. This happens partly because of the CBR's policy, which was aimed at limiting speculation on the currency exchange market for the dollar. So the CBR's policy encouraged the development of the interbank market for the dollar as well as markets for currencies other than the dollar. It also resulted in shifting the speculative activities to these markets.

The organised market for the German mark appeared at the MICEX in the end of 1992. Initially the participants in this trade were the banks, which had corresponding accounts in German banks. The demand for that currency was growing due to the increasing trade with Germany.

New currency traded at the MICEX made it possible to have a kind of guarantee, if the trend in the exchange rate on the dollar market was unfavourable. Secondly, the introduction of the German mark allowed the banks to arbitrage using the difference between the cross-rate (calculated as the ratio the MICEX dollar rate and the DM/$ rate according to Reuters) and the spot rate of the German mark. It was profitable to buy dollars for roubles at the MICEX and convert them into DM at the world rate abroad (at the Reuters' rate) for some time. Another scheme of arbitrage suggested buying German marks in Moscow and selling them, for instance, in St.Petersburg.

In 1993 there was a lag between the movements of the two exchange rates: the mark exchange rate followed the dollar with a certain delay. It can be explained by the difference in the timetable of the trade sessions, the German mark was traded infrequently and the daily trade in it started later, than in the dollar. In the second half of 1993 the cross rate was almost equal to the spot one, limiting the arbitrage possibilities.

However, the market successfully passed the initial stage of its development and has continued to grow.

The exchange rate of the rouble to German mark in 1994 reacted with a lag to the changes on the world market. For example in June 1994 this lag was 7-14 days (*Finansovye Izvestia,* No 35, 1994). The other key feature is that the German mark is always undervalued in the Russia's market (both at the currency exchanges and at the cash market). This can be seen if one compares the spot rate and the cross rate of the German mark. A possible explanation is given by the strong preference of the market as a whole towards the dollar.

Since March 1995 a new mechanism of the trade in the German mark at the MICEX has been introduced. It was based on so-called 'Hamburg' or 'modernised' fixing. During the session the balance is reached between the prices instead of supply and demand. At the beginning of a session the 'rate broker' announces the maximum price of buying and selling of all the bids. Additional bids are collected. If demand exceeds supply, the 'rate broker' increases the exchange rate. Thus, the volume is re-calculated at every iteration. The procedure is repeated until fixing becomes possible. The purpose of the new system was to make large differences between the supply and demand less crucial. The volume of trade is less important than the price.

The most important feature of this market is the absence of direct CBR regulation. The rouble-to-mark exchange rate is much more volatile in the short run. Consequently, the German mark is better for speculating, than the market for the dollar. In addition, the fluctuations of the German mark in respect to the dollar at the world markets give to it an excess speculative potential. Cross-rates of the German mark compared to the DM rate at the MICEX tend to show a decreasing difference between them (*Commersant Weekly,* No 11, March 28, 1995).

The importance of the market for the German mark can grow in 1995 for the following reasons. First, the introduction of the 'soft peg' of the rouble to the dollar can increase the interest of the speculators to the market for the German mark. Second, recently announced by the USA replacement of the old bank notes with ones, can lead to the threat to the US dollar in Russia. The decision by the United States to "softly" replace its currency bills is prompted by the flow of counterfeit dollars which has assumed proportions estimated in the tens of billion dollars. Although exchange of legitimate currency cause no problems for anyone outside Russia, it may be a problem for Russians. Russian banks fail to provide check of authenticity of dollar notes and consequently refuse to exchange them. Even now the old notes, which are less secure against forgery, have lower exchange rate in many Russian banks, or are not accepted at all. Buying German marks can be a solution for the population, as a lot of people prefer to keep their savings in hard currencies. This can lead to growth of the demand for the German marks.

4.3 Market for Ukrainian Karbovanets and other 'soft' currencies

The market for 'soft' currencies in Russia emerged in 1993, starting with the newly introduced Ukrainian money. In 1994 the MICEX traded in three 'soft' currencies. They were: the Ukrainian karbovanets[1], the Kazakh tenge and the

1 The plural for the word '*karbovanets*' is '*karbovantsi*'.

Belarussian rouble. The karbovanets is the most important one with respect to turnover and the number of traders. According to estimates of currency dealers, in 1994 the Ukrainian currency accounted for about 70% of the transactions with 'soft' currencies (*Finansovye Izvestia*, April 1994).

Ukraine has been one of the first FSU republics to introduce its own currency parallel to the Russian rouble. At the first stage the introduction of the karbovanets was a kind of response to the shortage of Russian roubles in circulation and it had been considered as a temporarily measure. Since March 1993 the Ukrainian karbovanets has become the only legal tender in Ukrainian territory.

It was necessary to provide foreign trade with relevant currency units. This was the main reason for the emergence of the market for all the 'soft' currencies in Russia. Ukraine and Russia are still mutually important trade partners. In 1993 the Russian share in the Ukrainian trade with CIS countries was 74% of Ukrainian total exports and 71% of its imports. In the first half of 1994 the Russian share was 67.5% of exports and 72% of imports to the CIS countries. It was 38.2% and 58.1% of total Ukrainian exports and imports respectively (*Finansovaya Ukraina*, 3 August 1994).

In 1993 commercial banks were the first to offer their clients transactions with 'soft' currencies. In 1994 it was possible to open a current account denominated in any currency of the FSU. A significant part of the banks' profits was provided by the substantial differences in the rates of purchase and sale, rather than by the turnover in these currencies. Exchanges started trade in 'soft' currencies in 1993. However, the MICEX was the only exchange which succeeded in this trade. It was considered to be risky, because of the absence of reliable information and a stable demand for 'soft' currencies in Russia. Due to this all attempts of the other exchanges to introduce 'soft' currencies failed. As a rule, the CIS countries were less successful in undertaking economic reforms than Russia. The result was high inflation and instability of their national currencies and problems in making payments between these countries and Russia.

The introduction of regular 'soft' currencies trade at the MICEX gave new opportunities to foreign trade and the participants of the foreign exchange market. It was possible to make payments to the countries faster; it was feasible to buy the necessary currencies and, moreover, possibilities for arbitrage had been foreseen.

The Central Bank does not take part in karbovanets trade sessions at the MICEX. Less control leads to more opportunities for speculation, thus making 'soft' currencies attractive for dealers. The official rouble-to-karbovanets exchange rate is set twice a week based on the MICEX trade session results.

Since 1 June 1993 regular MICEX trade sessions in karbovantsi have started. It is worth mentioning that the market for karbovantsi is virtually wholly concentrated in Moscow. Regional exchanges have failed to introduce regular trade in karbovantsi due to insufficient demand. Since March 1994 the trade sessions on karbovanets have been done daily. When the official exchange rate of the karbovanets was fixed in Ukraine, the trade volumes at the MICEX increased significantly. Between the end of 1993 - autumn 1994, Russian market was the only free market for the Ukrainian currency, apart from the internal Ukrainian black market .

The results of the karbovantsi trade at the MICEX for the 1993-1994 are summarised in Table 11 of the Appendix. The turnover increased about 10 times by the end of 1994. The initial supply of karbovantsi usually exceeded the initial demand, thus leading to the karbovanets depreciation.

Nevertheless, the MICEX market for Ukrainian currency is still very thin. The average number of banks trading was 5-6 in 1993 and it was about 10-12 in 1994. The number of banks trading at the off-exchange market was greater than the members of the currency exchange. The 0.01% tax imposed by the Moscow authorities on the MICEX transactions made this market less attractive for big clients. Their bids were handled by the banks mostly at the non-exchange market. Banks provided transactions involving cash karbovantsi as well. However, these operations turned out to be less attractive for the banks than non-cash transactions. There was no permanent flow of cash karbovantsi to Moscow.

The forward market for karbovantsi has existed from early 1994. At the beginning, two Moscow banks had offered their clients forward contracts in order to provide hedging for their future payments to and from Ukraine (as well as Kazakhstan and Belarus). They also conducted dealings in the Ukrainian market for short-term credits. However, not until the forward market was more developed, was real hedging of cross-deposit operations possible. When there was a fall in the Russian nominal interest rates in 1994, Russian financial firms and organisations were interested in participating in the money markets of some FSU republics. They conducted cross-deposit and cross-credit operations, that was yield arbitrage. The schemes of arbitrage involving the karbovanets are described below.

4.4 Arbitrage operations

By definition, arbitrage is the simultaneous purchase and sale of assets of identical characteristics to earn a profit without risk-taking. When economic conditions are stable and currencies are fully convertible all exchange rates equalise very quickly. Thus, there is no possibility for foreign exchange arbitrage at all, or it is limited. Usually the play is based on the quality of operative forecast and the speed of interbank payments.

In the case of the former Soviet republics arbitrage is based mostly on the inconsistency of the national currencies' rates to the Russian rouble and to the US dollar (or the German Mark). The precondition for arbitrage operations with 'soft' currencies involving the dollar and the German Mark is the volatility of the rouble-dollar and rouble-German mark exchange rates in national foreign exchange markets. The other important feature of these markets is the low speed of interbank payments. For instance, in 1992 some payments between FSU countries could take a week or more, in 1994 they were normally made in three days. The restrictions on participating in currency trading and, thus, thin markets also gave rise to different kinds of arbitrage operations. Even though the information was available to everybody, banks which had correspondents in a foreign country or a subsidiary abroad could use it to play effectively.

4.4.1 Spatial arbitrage

This kind of arbitrage is possible in Russia using the difference between the dollar and the German mark rates at regional exchanges and in Moscow. For instance, in the second quarter 1995 (in April) the rate of dollar growth slowed down. This process was uneven, there were substantial differences between the rates at the Moscow and regional exchanges, The differences in the exchange rate level at the MICEX and non-

exchange market were even more significant. At the deregulated interbank foreign exchange market the rouble exchange rate grew slower than at the MICEX. Commercial banks used the following scheme of arbitrage. They sold foreign exchange at the currency exchange market for roubles, used these roubles to buy dollars at the interbank market, and sold dollars at the currency exchange market again.

Regional currency exchanges usually consider the MICEX dollar rate the main indicator. However, certain regional specific features exists due to the different ratios of supply and demand in each region. For example, the Asian-Pacific Currency Exchange usually has a higher dollar rate than the MICEX, due to the relative shortage of roubles in the region. The other reason is that trade sessions at regional exchanges are conducted at different times, before or after the MICEX trade results are known. For instance, St. Petersburg Currency Exchange trades US dollars later than the MICEX. If the dollar exchange rate tends to grow in Moscow, then the quotations in St.Petersburg exceed the MICEX rate of the same day. Therefore, it is more profitable for the banks of the north-west region to buy dollars in Moscow.

As far as 'soft' currencies are concerned, it is possible to use the difference between the exchange rate of two currencies in Russia and in the other country. Ukraine may be a good example. In the first half of 1993 MICEX and Ukrainian Interbank Currency Exchange (UICE) karbovanets-to-rouble rates were very close to each other. Apart from the above, there was a lack of correspondent relations between Russian and Ukrainian banks. Before the introduction of the fixed official exchange rate in Ukraine there were almost no possibilities for arbitrage.

Since July 1993 spatial arbitrage in non-cash market for karbovantsi became more feasible due to bigger differences in the exchange rates in Moscow and Kiev. However, it was relatively difficult to arbitrage in the currency exchange market. First, because of the restrictions imposed on the UICE trade, and, second, several cancellations of trade sessions results were imposed by the National Bank of Ukraine (NBU). Since the UICE trade was stopped, arbitrage operations have been possible only in the off-exchange market.

Since UICE actions trade restarted in April 1994, the difference between MICEX and UICE exchange rates was relatively stable (about 10%). For instance, due to the big difference in the karbovanets rate in Moscow and Kiev in mid-September 1994 it was profitable to buy roubles in Kiev at 23 Krb/R and sell in Moscow at 27 Krb/R, making 25 % profit.

4.4.2 Triangular arbitrage

This kind of arbitrage operation according to the definition involves three currencies, or three asset prices that are not mutually consistent. Three exchange rates give more chances for obtaining gains if the foreign exchange markets adjust to the changes in the situation slowly. The following example involves the rouble, the karbovanets and a hard currency (either the US dollar or the German mark). The opportunity for making profits results from the slow adjustment of the exchange rates involved to each other; it occurs also due to government policy, which includes keeping the foreign currency undervalued to the domestic currency. This was the policy followed by the Ukrainian government.

The general scheme of the operation is as follows. Roubles are transferred from Russia to Ukrainian banks in order to buy karbovantsi. Karbovantsi are exchanged for US dollars or German marks, which are transferred back to Russia. Dollars/German

marks are sold in Russia. In case of efficient transaction the amount of roubles obtained in the end of the chain of transactions exceeds the one invested at the beginning.

The two conditions of profitability are: a relatively expensive rouble and a simultaneously existing possibility of purchasing dollars at a profitable rate. The first condition holds when the rouble exchange-rate is high in Ukraine, and the second one when the cross-rate of karbovanets via the dollar (or via the German mark) is below its nominal exchange rate.

The effectiveness of triangular arbitrage in Ukraine from January to August 1993 is summarised in Table 12 of the Appendix. The coefficients of profitability for US dollars and German marks operations are given in the first shadowed column. Costs of transactions are not taken into account.

From the end of February these operations could give high profits (for example, on 5th March 1993 the profitability could have been 51.2%). After the sharp increase in the karbovanets-to-dollar exchange rate at the beginning of April 1993 the effectiveness dropped to zero. However, at the end of April the arbitrage transactions became effective again. In the first column of Table 12 some of the cross-rate profitability coefficients are positive and relatively high (4%-41%). This situation lasted from April 23 to June 4, 1993. Later there was a simultaneous increase in the exchange rates of the dollar and the rouble, therefore the profitability coefficients dropped again.

In August 1993 there was a very short period when the arbitrage profits could have been extremely high (almost 100%). This happened due to the time lag in exchange rate movements in Kiev and in Moscow. However the increases in the Moscow and Kiev exchange rates were not simultaneous and it was possible to use the substantial difference between the banks' exchange rate and the dollar cross-rate. The possible gain exceeded 100%.

The above scheme could vary with the market conditions. By February 23, 1994, the cross-rate R/$ via Krb was 1650 R/$, much higher than 1550 R/$ on the MICEX. This margin made the cross-scheme 'dollar - karbovanets - rouble - dollar' attractive for Ukrainian residents. This resulted in an increased demand for roubles in Ukraine and thus an increase in karbovanets/rouble exchange rate was expected.

Non-cash and cash rouble rates were equalising during March 1994 (rising to 21.25 and falling to 22 respectively) because of the inflow of cash roubles from Russia and the high profitability of some exports to Russia. The cash dollar was overvalued in Ukraine, the non-cash rouble became cheaper. Therefore it was profitable to buy hard currency for roubles and then sell it in Russia. By the end of March 1994 the karbovanets rate at the MICE had closely approached the non-cash rate in Ukraine. Changes of the non-cash rouble rate were consistent with the changes of the efficiency of 'dollar-rouble-karbovanets' operations, while the cash rouble rate was stable. In July 1994 after the results of the Ukrainian elections became known and the unification of the exchange rates was foreseen, all the market karbovanets exchange rates including the MICEX rate became very close thus eliminating arbitrage possibilities.

A more complicated scheme of arbitrage operations involving two 'soft' currencies could be used. The main features of this type of cross-operation are: including in the chain of transactions two 'soft' currencies instead of one and using the inconsistency of their exchange rates to the rouble as well as to the dollar (or the German mark).

This type of transaction was described by the Commersant experts Zhuravliov and Ivanter in 1993. The idea behind it was to buy dollars in a former Soviet republic

where they were relatively cheaper, being denominated in roubles. The second step was to sell dollars to where they were more expensive (denominated in roubles).

The pre-condition of efficiency was that the rouble cross-rates via 'soft' currencies excess over their dollar cross-rates. The chain of transactions started in Russia with roubles and it should have been ended in a republic where the national currency/dollar rate was depreciating faster than national currency/rouble rate. Dollars should have been transferred to the countries with more stable currencies, which kept the rouble undervalued (compared to the rouble cross-rate of their national currencies).

The general scheme of the operation is as follows. A Russian dealer transfers roubles to the republic A and buys national currency which is relatively cheap in comparison with roubles. Then the national currency is exchanged into dollars or German marks. Hard currency is transferred to the republic B where the national currency is relatively cheaper than dollars or German marks and exchanged for the national money. The national currency of the republic B is used for buying relatively cheap roubles which are transferred back to Russia.

The results of these operations for 1993 are summarised in Table 12 (Appendix). Ukraine is supposed to be the republic A - the first recipient of roubles. In the heading the countries of type B are listed: Latvia, Lithuania, Estonia and Belarus. In other countries the foreign exchange markets and banking operations were not developed or non-existent, therefore they were not included. These four countries were used for exchanging dollars for national currencies and the latter were exchanged for roubles. If Ukraine is considered as country B (see first shadowed column of Table 12), we obtain the efficiency coefficients for triangular arbitrage.

The coefficients of efficiency for the whole chain of transactions are given as a percentage of the roubles invested. The current average commercial banks' rates of purchasing and selling currencies were used for the calculations. The official dollar rates in the given countries were used as well. For Belarus the currency exchange rate of the Russian rouble was used, because the direct banking operations were not developed at that time.

Negative coefficients in Table 12 indicate losses in the scheme described above. However, one had to change the direction of the operations and positive arbitrage was possible. Profits were close to zero during the periods of relative stability of the MICEX dollar exchange rate. When volatility of the rouble-dollar exchange rate in Moscow was significant, possible cross-rates gains were increasing due to the uneven adjustment of the foreign exchange markets in the former Soviet republics.

It was important to guess the right direction of the transactions because high losses were possible as well. For a long period the optimal direction of transactions was Russia-Ukraine-Latvia-Russia. Profits were positive and high for both dollar and German mark exchange rates. On March 5, 1993, the efficiency was more than 100%, even though this was an exemption. Nevertheless, profits in this particular scheme were relatively stable until June 1993. In July the situation changed and usage of the old scheme could lead to more than 10% losses.

It is necessary to mention that only a few banks could use the situation to make the profitable transactions. Sometimes there was not enough time for all the necessary transfers. The result always depended on the well-developed contacts with banks in the countries involved and the quality of the Moscow dollar exchange rate forecast.

4.4.3 Yield arbitrage

Apart from the above currency arbitrage operations, the transactions involving the Ukrainian markets for credits and deposits have been very profitable for Russian enterprises and banks until the NBU decreased the discount rate from 240% to 190% per annum in July 1994. The maximum interest rate for credits was set at 250% per annum. At the same time the banks had to decrease the interest rates for earlier issued credits. Formally Ukrainian banks fulfilled the NBU requirements, although they started to give only one-month credits. The average rate of interbank credits also was 250%, therefore interest rates on commercial credits exceeded the level required by the NBU.

The decrease of deposit rates from 230% to 200% in July and from 170% to 110 % in August made the Ukrainian market less attractive to Russian enterprises in terms of keeping deposits there. In July 1994 the real interest rate on deposits in Ukraine was about 14% per month, in August it declined to 11.5% . Nevertheless, the opportunity to hedge export-import operations and low risks depositing in Ukrainian commercial banks were still attractive for Russian investors in comparison with Russian deposit market. However, at the beginning of September the real deposit rate in Ukraine became negative and the deposit operations at Ukrainian market were unprofitable.

The scheme of cross-deposit operation is as follows. The client signs a contract with a bank for buying karbovantsi and depositing them in Ukraine. The bank converts client's roubles into karbovantsi according to current market exchange rate. Then it transfers them to a deposit account in a Ukrainian bank.

The Moscow bank guarantees the buy-back of karbovantsi including the interest rate payments according to the current exchange rate at the end of the deposit contract. The scheme can include one more intermediary between the client and the Moscow bank - a financial company. In fact, this is a trust agreement, offered by a bank or a financial company. The commission fee is fixed (about 2%). The existence of several intermediaries in the chain is necessary for the legal side of the operations and for minimising the risk of non-payments. Nevertheless, the currency risk for the client still exists, that is, a sharp depreciation of karbovanets during the time of the deposit contract. The bank could take a part of the currency risk. In that case a minimum level of earnings is negotiated and all the income above this level is shared between the bank and its client.

The results of the yield arbitrage operations in July-September 1994 are presented in Table 13, Appendix. Column VIII gives the real value of credits in karbovantsi in case of Russian residents borrowing in Ukraine. The figure 23.70% presented in the first row of the column VIII shows the minimum profit rate required on August 19, 1994 to pay back the loan denominated in karbovantsi, borrowed on July 19, 1994 (one month before). The figure 6.40% in the first row of column IX presents the average real interest on deposits for Russian residents in Ukrainian banks. The interest and exchange rates in shadowed columns indicate the levels at the beginning of the operation, i.e. one month before the corresponding date.

It is easy to see that cross-deposit operations were profitable in end of July - mid-August 1994. After August 20, 1994 the real interest rate became negative and these operations could bring losses. However, cross-credit operations started to be profitable.

The more financial and foreign exchange market are developing, the less easy it is to arbitrage. Transactions made between 1993-1994 changed from simple spatial arbitrage to very complicated schemes, which involved foreign currencies and other

assets. However, the existence of arbitrage indicated that financial markets in the FSU countries were not yet well-developed in comparison with industrial countries.

Conclusions

During 1992-1995 Russian foreign exchange market developed considerably. The future development of the foreign exchange market depends on macroeconomic situation in the country and conditions of Russian international payments and debts. The first factor determines demand for foreign exchange, supply and dynamics of roubles. The second factor determines turnover and dynamics of the foreign currencies , that is, the supply side of the foreign exchange market.

Macroeconomic development depends on government policy. The first half of 1995 shows that the government can provide tight monetary policy. The monthly inflation rates in 1995 were as follows: January - 17.8%, February - 11%, March - 8.9%, April - 8.5%, May - 7.9% However, this has happened before, and the most important aim is keeping the same policy at least till the end of 1995. If the Russian government does not give up the targets set in the beginning of the year, financial stabilisation will be possible. The further foreign trade liberalisation will help to provide liquidity of the foreign exchange market.

On the other hand, in 1994 the other financial market became a significant supplement to the foreign currency market. They provide alternative ways of allocating financial resources. The situation on the market for interbank credit (the interest rate) and the market for government bonds influences the exchange rate. Therefore one of the most important economic policy targets is to balance the development of all the sectors of the financial market.

The development of the off-exchange foreign currency market led to a relatively slow increase in the currency exchanges turnover. However, the currency exchange market will be the main part of the whole foreign exchange market due to the obligatory sales of export earnings and due to certain difficulties in the direct trade between banks. There is lack of information and communication systems; and there are also specific problems in the regions, because their financial markets are very thin.

The dollar has kept its leading position in the Russian foreign exchange market. Firstly, the structure of the Russian foreign trade is comparatively stable. There are certain problems in the relations between Russia and the other East European countries which cut down the trading in their currencies. Neither the latter money, nor the unstable currencies of the CIS countries are attractive, being compared with the dollar and the German mark. The high dollarization of the Russian economy will continue until the rouble stabilises and is expected to remain stable in the long run.

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APPENDIX

Table 1. Average monthly exchange rate and MICEX volume of trade

	Exchange rate R/$	*Nominal rouble deprecialtion (%)* (month on month)	*Gross trade volume* ($ mn)	*Exports* ($ mn)	*Volume as % of exports*
Total 1991	-	-	**280.02**	**50911**	**0.55**
Jan-92	198	27.27	18.38	2569	0.72
Feb-92	186	-6.45	33.25	2621	1.27
Mär-92	152	-22.37	98.9	2958	3.34
Apr-92	154	1.30	46.93	3148	1.49
Mai-92	123	-25.20	100.42	3518	2.85
Jun-92	126	2.38	308.92	3933	7.85
Jul-92	143	11.89	252.97	3340	7.57
Aug-92	168	14.88	261.3	3456	7.56
Sep-92	221	23.98	453.11	3665	12.36
Okt-92	354	37.57	407.93	4057	10.05
Nov-92	426	16.90	353.25	4369	8.09
Dez-92	415	-2.65	452.66	4758	9.51
Total 1992	-	-	**2862.4**	**42391**	**6.75**
Jan-93	484	14.26	485	2489	19
Feb-93	569	14.94	519	2893	18
Mär-93	665	14.44	490	3252	15
Apr-93	767	13.30	535	3167	17
Mai-93	928	17.35	452	3625	12
Jun-93	1080	14.07	683	3902	18
Jul-93	1025	-5.37	1371	3388	40
Aug-93	986	-3.96	1237	3679	34
Sep-93	1073	8.11	2186	4085	54
Okt-93	1188	9.68	1245	3430	33
Nov-93	1195	0.59	1616	4409	35
Dez-93	1240	3.63	1873	4965	34
Total 1993	-	-	**18622**	**43283**	**43.02**
Jan-94	1445	14.19	2095	2686	78
Feb-94	1583	8.72	1697	3202	53
Mär-94	1719	7.91	1254	3800	33
Apr-94	1794	4.18	1161	3745	31
Mai-94	1881	4.63	1108	3957	28
Jun-94	1958	3.93	1355	4371	31
Jul-94	2026	3.36	1457	3938	37
Aug-94	2122	4.52	3808	4279	89
Sep-94	2347	9.59	3569	4759	75
Okt-94	3044	22.90	2643	4195	63
Nov-94	3151	3.40	1643	4441	37
Dez-94	3388	7.00	1579	4268	37
Total 1994	-	-	**23369**	**47640**	**49.05**
Jan-95	3858	12.18	2799	na	na
Feb-95	4259	9.42	na	na	na
Mar-95	4749	10.32	na	na	na
Apr-95	5030	5.59	na	na	na
May-95	5071	0.81	na	na	na
Jun-95	4710	-7.66	na	na	na

Sourses: *Russian Economic Trends* , Vol 3, NN 1-4 and Monthly Update; June 1995
Commersant weekly No 5, 1993, Doronin (1994) and the author's calculations.

Table 2. Average monthly real exchange rate idicators

	Exchange rate, R/$	*CPI (Dec 90=100)*	*US CPI (Dec 90=100)*	*Real exchange rate (June 1992=100)*	*PPP* (R/$)*	*Actual rate/PPP exchange rate*
Apr-91	35	*194*	*101*	*367.6*	-	-
1992	-					
Jan-92	198	899	102	448.5	6	33
Feb-92	186	1241	103	308.8	8	23.25
Mär-92	152	1613	103	194.7	10	15.20
Apr-92	154	1968	103	160.9	12	12.83
Mai-92	123	2204	104	116.6	14	8.79
Jun-92	126	2623	104	100	16	7.88
Jul-92	143	2911	104	102.5	18	7.94
Aug-92	168	3173	105	110.9	20	8.40
Sep-92	221	3554	105	130.1	22	10.05
Okt-92	354	4371	105	170.2	27	13.11
Nov-92	426	5508	105	163.1	34	12.53
Dez-92	415	6885	106	127.2	42	9.88
1993	-					
Jan-93	484	8661	106	118.4	53	9.13
Feb-93	569	10801	106	111.9	66	8.62
Mär-93	665	12971	106	109.1	79	8.42
Apr-93	767	15436	107	106.1	93	8.25
Mai-93	928	18214	107	109	110	8.44
Jun-93	1080	21839	107	106.1	132	8.18
Jul-93	1025	26644	107	82.7	160	6.41
Aug-93	986	33571	108	63.3	201	4.91
Sep-93	1073	41293	108	56.1	247	4.34
Okt-93	1188	49551	108	51.9	295	4.03
Nov-93	1195	57478	108	45.1	342	3.49
Dez-93	1240	64951	109	41.6	385	3.22
1994	-					
Jan-94	1445	76577	109	41.20	453	3.19
Feb-94	1583	84847	109	40.80	501	3.16
Mär-94	1719	91126	109	41.30	537	3.20
Apr-94	1794	98872	110	39.80	581	3.09
Mai-94	1881	105694	110	39.10	619	3.04
Jun-94	1958	112036	110	38.50	655	2.99
Jul-94	2026	117974	110	37.90	688	2.94
Aug-94	2122	123400	111	38.10	718	2.96
Sep-94	2347	133272	111	39.10	767	3.06
Okt-94	3044	153263	111	44.10	856	3.56
Nov-94	3151	176252	111	39.80	975	3.23
Dez-94	3388	205158	112	36.90	1132	2.99
1995	-					
Jan-95	3858	241676	112	35.70	1333	2.89
Feb-95	4259	268260	112	35.60	-	-
Mar-95	4749	292135	112	36.60	-	-
Apr-95	5030	316967	113	35.80	-	-
May-95	5071	342007	113	33.50	-	-

* Real exchange rate = actual rate (Table 1) X US price level / (Russian price level)

** PPP - Purchasing Power Parity rate relative to goods and services based on IMEMO estimates

Source: *Russian economic trends,* Monthly update June 1995 and the author's calculations

Table 3. Regional structure of Russian foreign trade

Trade values ($ bn)	1994			1993			% change 94/93	
	Exports	*Imports*	*Balance*	*Exports*	*Imports*	*Balance*	*Exports*	*Imports*
Industrial countries	32.2	19.5	12.7	26.4	16.2	10.2	22	20
Developing countries	5.9	3.7	2.2	6.2	4.6	1.6	-4	-20
Former CMEA	6.1	2.4	3.7	7.5	2.9	4.6	-20	-17
Other contries	3.1	2.5	0.7	3.5	2.9	0.7	-12	-15
Baltic states	0.7	0.1	0.6	0.6	0.2	0.4	26	-18
Total	**48**	**28.2**	**19.9**	**44.2**	**26.8**	**17.5**	**26**	**-18**
Structure (%)	EXPORTS				IMPORTS			
	1991	**1992**	**1993**	**1994**	**1991**	**1992**	**1993**	**1994**
Industrial countries	56.5	58	59.7	67	58.1	62.3	60.6	69.2
Developing countries	13.5	11.3	14	12.4	10.4	14	17.3	13.1
Former CMEA	22.9	19.1	17	12.6	24.5	14.5	10.7	8.5
Other contries	7.1	10	8	6.5	7	8.3	10.8	8.7
Baltic states	na	1.6	1.3	1.5	na	0.9	0.6	0.5
Total	100%	100%	100%	100%	100%	100%	100%	100%

Sourse: *Russian Economic Trends,* Vol 3, No 4, 1994

Table 4. Trade with non-CIS countries in 1991-1994 ($ bn)

	Exports	*Imports*	*Balance*	*% change on previous year*	
				Exports	Imports
Total 1991	**50.9**	**44.5**	**6.4**	**-28**	**-46**
1992 Q1	8.1	9.1	-0.9	-31	-2
Q2	10.6	9.1	1.5	-15	-19
Q3	10.5	9	1.5		
Q4	13.2	9.8	3.4	1	-22
Total 1992	**42.4**	**37**	**5.4**	**-17**	**-17**
1993 Q1	8.6	6.4	2.2	6	-30
Q2	10.7	9.2	1.5	1	1
Q3	11.2	7.1	4.1	7	-21
Q4	13.8	10.3	3.5	5	5
Total 1993	**44.3**	**33**	**11.3**	**4**	**-11**
1994 Q1	9.7	7.6	2.1	12	19
Q2	12.1	7.8	4.3	13	-15
Q3	13	10.1	2.9	16	42
Q4	13.3	10.2	3.1	-4	-1
Total 1994	**48**	**35.7**	**12.3**	**8**	**8**

Sourse: *Russian Economic Trends,* Vol 3, No 4, 1994

Table 5. Russian monthly foreign trade in 1992-1994 ($ mn)

Month	*Exports*	*Imports*	*Balance*	*As a % of*	*previous year*
	$ mn	*$ mn*	*$ mn*	*Exports*	*Imports*
Dez-91	5353	5954	-601		
Total 1991	**50911**	**44473**	**6438**		
Jan-92	2569	2307	262	84	108
Feb-92	2621	3275	-654	61	94
Mär-92	2958	3506	-548	221	146
Apr-92	3148	2871	277	61	98
Mai-92	3518	2939	579	89	70
Jun-92	3933	3292	641	67	72
Jul-92	3340	2875	465	75	83
Aug-92	3456	2916	540	74	82
Sep-92	3665	3215	450	76	63
Okt-92	4057	3114	943	109	104
Nov-92	4369	3161	1208	101	85
Dez-92	4758	3520	1238	89	59
Total 1992	**42391**	**36990**	**5401**	**83**	**83**
Jan-93	2489	1434	1055	97	62
Feb-93	2893	1860	1033	110	57
Mär-93	3252	1897	1355	110	54
Apr-93	3167	2063	1104	101	72
Mai-93	3625	2544	1081	103	87
Jun-93	3902	2920	982	99	89
Jul-93	3388	1694	1694	101	59
Aug-93	3679	1834	1845	106	63
Sep-93	4085	2272	1813	111	71
Okt-93	3430	2412	1018	85	77
Nov-93	4409	2730	1679	101	86
Dez-93	4965	3300	1665	104	94
Total 1993	**43283**	**26959**	**16324**	**102**	**73**
Jan-94	2686	-	-	108	-
Feb-94	3202	-	-	111	-
Mär-94	3800	-	-	117	-
Apr-94	3745	-	-	118	-
Mai-94	3957	-	-	109	-
Jun-94	4371	-	-	112	-
Jul-94	3938	-	-	116	-
Aug-94	4279	-	-	116	-
Sep-94	4759	-	-	116	-
Okt-94	4195	-	-	122	-
Nov-94	4441	-	-	101	-
Dez-94	4268	-	-	86	-
Total 1994	**47640**	-	-	110	-

Sourse: *Russian economic Trends,* Vol 3, No4, 1994, and the author's calculations

Table 6. Top ten Russian trade partners outside CIS, and their share in exports and imports, (%)

	1992		1993		1994*	
	Exports	Imports	Exports	Imports	Exports	Imports
Germany	14	18.8	11.5	19.5	11.2	17.2
USA	1.8	8.2	4.5	8.6	7.8	8.2
UK	6.6	1.6	7.6	2.4	8.7	3.2
Italy	7	8.5	5.9	4.1	6.6	4.4
China	6.6	5	6.9	8.7	6.6	3.7
Finland	3.7	3.5	3.1	2.7	3.8	5.6
Netherlands	5.5	1.1	2.2	1.6	3.3	6.1
Japan	4.1	4.7	4.5	5.1	4.1	4.4
Switzerland	2.2	1.4	3.6	2.5	3.9	2
France	4.7	3.6	3.5	3.4	2.7	4
Total of above	56.3	56.4	53.4	58.3	58.8	58.9
Total trade	100%	100%	100%	100%	100%	100%

** Estimate*
*** Officially registered imports*
Source: Goskomstat (1992-93) and Centre for Economic Analysis and Forecasting, 'Russia -1994' p.78

Table 7. Barter transactions in Russian trade, 1992-94

	1992	1993	1994	1994 Q1	Q2	Q3	Q$
Total exports ($ bn)	42.4	44.3	48	9.7	12.1	12.9	13.3
of which barter ($ bn)	13	5.2	2.6	0.5	0.9	0.5	0.7
Barter as % of total exports	30.70%	11.70%	5.40%	5.20%	7.10%	4%	5.30%
Total imports	37	33	35.7	7.6	7.8	10.1	10.2
of which barter ($ bn)	9.1	2.8	1.6	0.4	0.3	0.4	0.4
Barter as % of total imports	24.60%	8.50%	4.50%	5.20%	4.40%	3.50%	3.90%
Exports-Imports ($ bn)	3.9	2.4	1	0.1	0.5	0.2	0.3
Exports/Imports ratio	1.43	1.86	1.63	1.26	2.48	1.46	1.75

Source: Goscomstat and State Customs Committee
Note: Quarterly data may not sum annual data exactly due to rounding.

Table 8. BALANCE OF PAYMENTS (US $ Bn)

	1991 Total	*1992 Q1*	*Q2*	*Q3*	*1992 Total*	*1993 Total*
Trade balance	**8.8**	-1.5	0.2	0.5	**4.2**	**16.8**
Exports	**53.9**	8.1	8.5	8.8	**41.1**	**43.9**
of which gold sales (excl. swaps)	**2.3**	0.6	0.1	0	**1.1**	**1**
Imports	**-45.1**	-9	-8.2	-8.8	**-36.9**	**-27.1**
of which humanitarian aid	**0**	na	na	na	**-1.9**	**-1**
Services (net)	**-6.3**	-1.8	-2	-2.5	**-8.5**	**-8.3**
Non-factor services, net	**-2.4**	-1.4	-1.3	-1.6	**-4**	**-4.2**
Net interest	**-3.9**	-0.4	-0.7	-0.9	**-4.5**	**-4.1**
receipts	**0.5**	na	na	na	**0.9**	**1**
payments	**-4.4**	na	na	na	**-5.4**	**-5.1**
Grants	**1.6**	0	0	0	**3**	**2.6**
CURRENT ACCOUNT	**4.1**	-2.7	-1.7	-2	**-1.3**	**11.1**
Medium- and long-term capital	**1.2**	2.9	2.4	0	**3.3**	**-9**
Disbursements	**7.8**	4.1	3.9	1.2	**12.8**	**5.8**
Amortization	**-8.2**	-1.3	-1.5	-1.1	**-8.9**	**-14.1**
Other (repayment from abroad)	**1.6**	0.1	0	0.1	**-0.6**	**-0.7**
Commersial banks excl. VEB	**-0.7**	-2.4	-1	-1.1	**-6.5**	**-0.1**
Other short-term	**0**	na	na	na	**-1.4**	**-5.3**
Foreign direct investment	**-0.1**	0.1	0	0	**0.7**	**0.9**
Monetization of gold	**0**	na	na	na	**0.2**	**0.5**
Errors and omissions	**-1.9**	-0.2	-1.3	1.8	**-7.6**	**-12.7**
Adjustment for barter	na	na	na	na	**-3.8**	**-1.2**
Adjustment for non-recorded imports	na	na	na	na	**na**	**-6**
Others	na	na	na	na	**-3.8**	**-5.5**
CAPITAL ACCOUNT	**-1.5**	0.4	0.1	0.7	**-11.3**	**-25.7**
OVERALL BALANCE	**2.6**	-2.3	-1.6	-1.3	**-12.6**	**-14.6**
TOTAL FINANCING	**-2.6**	2.3	1.6	1.3	**12.6**	**14.6**
Net international reserves	**0.6**	-0.1	-0.5	-0.1	**-1.3**	**-3.3**
Assets	**1.5**	-0.1	-0.2	0	**-2.2**	**-4.3**
Liabilities	**-0.9**	0	-0.3	-0.1	**-0.1**	**0**
IMF credtis	**0**	na	na	na	**1**	**1.5**
Others	**0**	na	na	na	**0**	**-0.5**
Arrears	**1.4**	1.3	1	0.4	**6.9**	**-3.8**
Debt deferral	**0.3**	1.1	1.1	1	**7**	**5.6**
April 1993 resheduling	**-**	-	-	-	-	**12.4**
Amounts unpaid pending resheduling	**-**	-	-	-	-	**3.7**
Interrepublican residual	**-8.2**	-	-	-	-	**-**

Note: the 1992 data portray the BOP of Russia with countries outside the FSU
Sourse: *Russian Economic Trends,* Vol 3(4), 1994

Table 9. Russian selected macroeconomic indicators, end of month

Month	*CPI* (Dec 90 =100)	*IPI* (Dec 90 =100)	*Inflation* %	*Change in IPI* %	*Change in average R/$ rate* %	*Monthly growth of M2* %	*GDP* *Rb. bn*	*Industrial production* *Rb. bn*	*Real Industrial production** Dec 91=100
Dez-91	261	445	12.1	11.3	55	11	104	679	100
Jan-92	899	2146	245	382	16	12	363	672	99.3
Feb-92	1241	2918	38	36	-6	12	481	672	99.3
Mär-92	1613	3385	30	16	-18	14	558	672	99.3
Apr-92	1968	3961	22	17	1	10	645	990	93.4
Mai-92	2204	4634	12	17	-20	9	739	990	93.4
Jun-92	2623	5746	19	24	2	28	958	990	93.4
Jul-92	2911	6723	11	17	13	27	1122	1179	86.7
Aug-92	3173	7261	9	8	17	28	1238	1238	81.2
Sep-92	3554	7769	12	7	32	32	1406	1540	81.8
Okt-92	4371	9867	23	27	60	27	1772	2037	79.2
Nov-92	5508	12531	26	27	20	6	2182	2386	76.8
Dez-92	6885	15037	25	20	-3	18	2584	2771	77.2
Jan-93	8661	19849	25.8	32	17	19	4334	2966	76.7
Feb-93	10801	25804	24.7	30	18	10	5320	3948	77.7
Mär-93	12971	30707	20.1	19	17	17	6147	5406	78.1
Apr-93	15436	37155	19	21	15	23	8470	5821	77
Mai-93	18214	43843	18	18	21	19	9394	6159	75.4
Jun-93	21839	50858	19.9	16	16	1	12148	7340	73.8
Jul-93	26644	65098	22	28	-5	37	13555	9026	71.7
Aug-93	33571	82024	26	26	-4	14	13587	10523	69.1
Sep-93	41293	99249	23	21	9	3	17042	11991	67.8
Okt-93	49551	118106	20	19	11	11	19330	13970	64.7
Nov-93	57479	135822	16	15	1	8	22467	15182	62.9
Dez-93	64951	150762	13	11	4	17	30550	17091	62.7
Jan-94	76577	179407	17.9	19	17	5	26000	16157	57
Feb-94	84847	208112	10.8	16	10	6	32000	17958	57
Mär-94	91126	228923	7.4	10	9	9	36200	21559	54.9
Apr-94	98872	251816	8.5	10	4	17	46300	21217	54.4
Mai-94	105694	269443	6.9	7	5	13	47600	20518	52.5
Jun-94	112036	290998	6.0	8	4	13	48000	22484	51.8
Jul-94	117974	314278	5.3	8	3	10	50000	22871	51.4
Aug-94	123400	333135	4.6	6	5	12	56000	25450	52.8
Sep-94	133272	356454	7.2	7	11	6	61600	27788	51.2
Okt-94	153263	395664	11.8	11	30	5	64600	33343	53.7
Nov-94	176252	447100	14.2	13	4	4	75200	37798	55.3
Dez-94	205158	505223	16.4	13	8	10	87100	43838	53.1
Jan-95	241676	616372	17.8	22	14	-4	79000	47008	53.1
Feb-95	268260	721156	11	17	10	9	95000	51663	51.6
Mar-95	292135	800483	8.9	11	12	4	101000	63817	49.2
Apr-95	316967	920555	8.5	15	6	15	107000	67736	48.3
May-95	342007	na	7.9	na	1	7	115000	na	50.4

* Based on seasonal adjustment procedure, see *Russian Economic Trends* Vol 3(4)

Source: *Russian Economic Trends,* Monthly Update, June 1995, and the author's calculations

Table 10. Russian selected monetary indicators, end of month

Month	*M2* Rb. bn	*Total CBR credit* Rb. bn	*Currency in circulation* Rb. bn	*Rouble deposits* Rb. bn	*Currency velocity*	*M2 velocity*	*Interbank interest rate*	*Refinance rate (CBR)*	*Deposit rate*
Dez-91	958	279	174	784	na	na	na	na	na
Jan-92	1076	290	191	885	1.63	0.33	2.6	1.7	1.1
Feb-92	1204	325	216	987	1.63	0.33	3.9	1.7	1.6
Mär-92	1369	485	255	1114	1.63	0.33	5.4	1.7	2.8
Apr-92	1506	687	321	1184	2.27	0.5	6.6	4.2	3.4
Mai-92	1641	833	369	1273	2.27	0.5	7.8	4.2	4.1
Jun-92	2093	1359	458	1636	2.27	0.5	8.5	6.7	4.7
Jul-92	2668	2009	645	2023	2.06	0.47	8.8	6.7	5.8
Aug-92	3422	3117	830	2592	1.69	0.41	9	6.7	5.1
Sep-92	4515	3866	998	3517	1.54	0.36	8.9	6.7	5.2
Okt-92	5722	4101	1196	4526	1.62	0.35	9.2	6.7	5.3
Nov-92	6038	4507	1449	4589	1.66	0.37	9.9	6.7	5.3
Dez-92	7114	6894	1716	5398	1.64	0.39	11.2	6.7	6.7
Jan-93	8491	7573	1903	6588	2.4	0.56	11.1	6.7	6.4
Feb-93	9343	8484	2278	7065	2.56	0.6	11.5	8.3	6.8
Mär-93	10932	10530	2559	8373	2.55	0.61	12.1	8.3	7.5
Apr-93	13434	11977	3309	10125	2.91	0.7	12.4	8.3	8.3
Mai-93	15982	12733	4020	11962	2.58	0.64	13.1	8.3	8.6
Jun-93	16219	14205	5111	11108	2.68	0.75	14	11.7	9.5
Jul-93	22215	16220	6259	15956	2.4	0.71	15	14.2	10.3
Aug-93	25261	18058	7305	17956	2.01	0.57	15.3	14.2	10.8
Sep-93	26099	20168	8408	17691	2.17	0.66	15.7	15	11.1
Okt-93	28866	21965	9826	19040	2.13	0.7	17.3	17.5	12.2
Nov-93	31266	23878	10952	20314	2.17	0.75	17.2	17.5	12.3
Dez-93	36718	25445	13278	23440	2.53	0.9	17.6	17.5	12.6
Jan-94	38650	27678	12967	25683	1.98	0.69	17.9	17.5	13.3
Feb-94	41011	32759	14573	26438	2.33	0.8	17.8	17.5	13.5
Mär-94	44772	34136	15939	28833	2.38	0.84	17.5	17.5	13.7
Apr-94	52352	39296	19411	32941	2.63	0.96	16.7	17.1	13.4
Mai-94	59404	43711	20669	38735	2.38	0.85	15	16.7	12.1
Jun-94	66960	48664	23811	43149	2.16	0.76	12.6	12.9	9.6
Jul-94	73558	56916	27048	46510	1.97	0.71	11.3	12.9	9.9
Aug-94	82460	63661	27918	54542	2.04	0.72	10	10.8	8.3
Sep-94	87176	68983	30016	57160	2.13	0.73	10	10.8	6.9
Okt-94	91535	74380	30522	61013	2.13	0.72	11.9	14.2	7.8
Nov-94	95196	na	31982	63214	2.41	0.81	13.6	15	8.7
Dez-94	104716	na	36482	68234	2.55	0.87	13.6	15	8.9
Jan-95	100737	na	33882	66855	2.28	0.78	15.4	16.7	na
Feb-95	109501	na	36452	73049	2.73	0.91	na	na	na
Mar-95	114067	na	38150	75917	2.66	0.92	na	na	na
Apr-95	131643	na	na	na	na	0.87	na	na	na
May-95	141046	na	na	na	na	0.84	na	na	na

* Total CBR credit equals gross CBR credit to commercial banks + gross CBR credit to CIS republics + gross CBR credit to the Ministry of Finance + gross CBR credit to enterprises
** M2 includes currency in circulation plus deposits (demand deposits and time deposits)
*** Velocity of circulation for GDP is defined as GDP divided by the relevant monetary aggregate obtaining at the mid-month (assuming constant growth)
**** All interest rates are given as % per month
Source: *Russian Economic Trends,* Monthly Update, June 1995, and the author's calculations

Table 11. Karbovartsi trade on the MICEX in 1993-1994

Month	*Exchange rate* Krb/R	*Volume of trade* Krb bn	*Initial demand* Krb bn	*Initial supply* Krb bn
1993				
June	4	2.369	3.681	2.369
July	5.3	0.528	0.748	10.897
August	10.1	15.691	29.495	59.092
September	15.4	16.5	20.638	55.597
October	21.7	20.667	27.578	30.116
November	30	40.627	56.14	80.885
December	24.4	18.62	45.849	26.937
Total 1993	-	**115.002**	**184.129**	**265.893**
1994				
January	22.08	14.94	17.06	21.18
February	18.66	36.35	44.65	48.72
March	20.62	75.17	90.72	109.79
April	21.6	57.54	76.48	82.37
May	22.88	91.07	73.76	109.84
June	22.42	85.9	93.3	68.02
July	20.92	98.68	68.45	122.99
August	21.74	206.49	131.76	310.18
September	28.65	197.15	183.56	406.54
October	30.49	186.88	290.75	275.07
November	28.6			
December	31.25			
Total 1994	-	**1050.17**	**1070.49**	**2120.66**

Source: Doronin (1994) and *Commersant Daily*, 1994

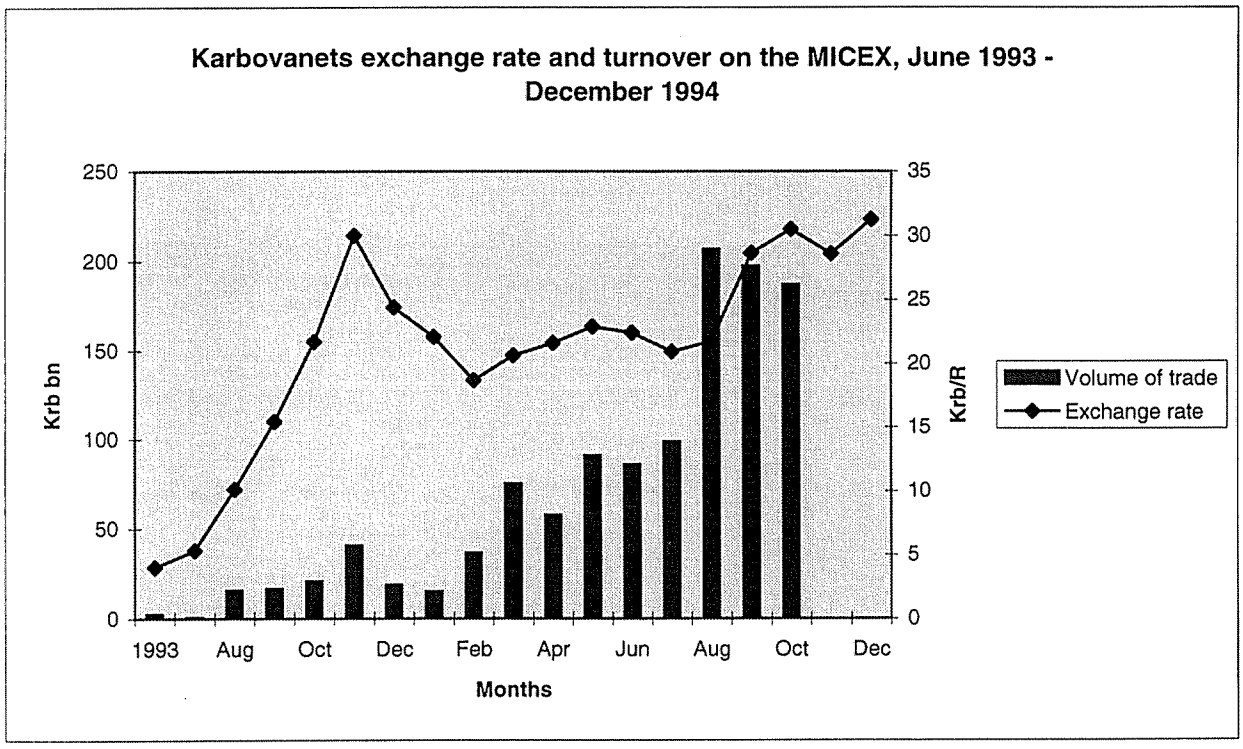

Table 12. Efficiency of cross-rate operations in 1993, involving currencies of Russia, Ukraine and a third part, (%)

DATE	UKRAINE		LATVIA		LITHUANIA		ESTONIA		BELARUS	
	$	DM	$	DM	$	DM	$	DM	$	DM
30-Dez	0.00		1.60		-22.90		0.20		8.00	
14-Jan	0.00		13.00		-18.60		-2.20		5.80	
19-Feb	26.60	27.30	62.30	50.80	3.70	-5.60	25.80	16.90	10.50	2.60
26-Feb	34.80	54.30	33.70	33.40	1.40	-1.40	31.20	30.80	51.30	50.60
05-Mär	51.20	54.10	121.80	121.90	44.80	41.20	50.40	50.70	57.30	57.30
12-Mär	14.30	14.80	64.60	64.60	14.10	14.00	34.40	14.00	33.10	33.20
19-Mär	5.60	3.80	39.30	39.50	7.70	7.50	2.40	2.50	17.90	18.00
26-Mär	15.00	18.30	61.30	61.10	23.60	21.90	26.70	27.20	36.90	36.70
02-Apr	0.00	0.00	14.10	13.70	0.50	0.40	0.60	0.60	12.90	13.00
09-Apr	1.90	12.30	16.30	16.20	0.30	0.60	3.20	3.70	2.60	2.60
16-Apr	0.00	1.10	43.70	43.20	-6.90	-7.00	-1.00	-14.70	-34.20	-34.20
23-Apr	4.20	3.20	16.20	16.20	1.50	-5.10	3.70	4.20	-34.50	-34.70
30-Apr	15.22	7.06	14.40	23.23	1.92	4.63	6.24	-1.25	-15.18	-10.57
07-Mai	12.31	19.68	18.33	21.19	7.82	38.64	12.81	5.78	-8.54	-7.52
14-Mai	24.91	22.09	22.18	18.53	8.35	5.39	19.01	21.94	-11.89	-13.60
21-Mai	33.41	33.36	23.92	22.90	15.58	13.58	27.95	27.23	6.07	8.30
28-Mai	41.76	36.45	30.24		20.02	17.50	42.48	27.60	24.77	23.60
04-Jun	24.80%	26.91	18.19	20.01	0.32	0.73	24.79	27.88	1.85	3.44
11-Jun	0.81%	1.64	9.32	5.91	-21.06	-24.86	1.60	-0.29	-8.20	-9.26
18-Jun	1.80%	1.63	-41.14	-38.83	-1.45	3.53	-18.59	-14.82	-15.41	-11.04
25-Jun	3.44%	0.00	28.70	7.03	-12.25	-19.27	6.70	-11.27	-2.50	-10.25
02-Jul	0.00%	0.00	12.80	0.04	-19.76	-30.00	-1.60	-22.56	-20.69	-26.50
09-Jul	0.00%	0.00	10.63	8.08	-10.68	-12.96	-3.89	-15.70	-22.22	-23.97
16-Jul	0.00%	0.00	-15.14	-10.93	-2.13	2.45	-8.24	-15.24	-5.50	-0.77
23-Jul	10.44%	12.95	2.14	6.62	13.57	14.89	9.71	14.67	4.50	7.82
30-Jul	0.00%	0.00	-13.54	-12.47	-14.55	-17.88	-10.98	-11.36	-12.67	-12.47
13-Aug	0.00%	0.00	-10.90	-21.29	-19.42	-24.05	-7.27	-19.01	33.89	17.39
20-Aug	103.00%	32.30	-66.52	-50.42	-69.64	-55.33	-64.22	-46.48	-4.99	-0.25
24-Aug	16.73%	9.90	-19.64	-26.00	-5.24	-8.80	16.47	11.39		

Table 13. Cross-credit and cross-deposit operations, July-September 1994

Date	Discount rate NBU	Average interest rates on 1-month credits		Interest rates on 1-month credits 1 month b before		Excnange rate krb/R, buy-sell		Real monthly value	
		Credit	Deposit	Credit	Deposit		1 month before	Credit	Deposit
	I	II	III	IV	V	VI	VII	VIII	XI
19/08/94	140%	150%	110%	250%	160%	21-22	20.5-21.5	23.70%	6.40%
26/08/94	140%	150%	110%	250%	170%	21-21.5	21-21.5	23.70%	11.50%
02/09/94	140%	140%	110%	200%	130%	24-25	21.5-22	6.90%	-4.70%
09/09/94	140%	140%	110%	190%	120%	25.5-26.5	23-24	9%	-4.50%
16/09/94	140%	120%	90%	150%	110%	25.5-26.5	23-24	5.90%	-5.3

FORMULAS

(VIII)=[100+(IV)/12]x[(VII)sell/(VI)buy]-100
Minimum monthly profit rate (in rubles) required for paying back a loan denominated in karbovantsi

(XI)=[100+(V)/12]x(VII)buy/(VI)sell]-100
Minimum monthly profit rate (in rubles) possible in case of exchanging rubles and depositing karbovantsi in Ukraine

Table 14. Turnover on Russian currency exchanges in 1992-1993 and the CBR's participation

Month	*Monthly average exchange rate Rb/$*	*Total hard currency sales $ million*	*CBR's sales $ million*	*Share of CBR in total sales %*	*Com.banks & their clients' sales $ million*	*CBR's purchases $ million*
1992						
Jan	204.32	18.38	0.92	5.01	17.46	-
Feb	175.76	33.25	11.09	33.35	22.16	-
Mar	152.77	98.90	68.74	69.50	30.16	-
Apr	152.78	46.93	22.33	47.58	24.60	-
May	122.33	100.42	39.86	39.69	60.56	-
Jun	125.26	308.92	224.29	72.60	84.63	-
Jul	143.45	225.08	131.80	51.67	123.28	-
Aug	169.66	269.38	70.00	25.99	199.38	17.00
Sep	226.00	466.21	178.99	38.39	287.22	27.00
Oct	353.39	421.76	149.94	35.55	271.82	13.00
Nov	427.02	369.95	119.72	32.36	250.23	7.71
Dec	414.73	473.22	38.19	8.07	435.03	222.70
Total	**-**	**2862.4**	**1055.87**	**36.89**	**1806.53**	**287.41**
1993						
Jan	489.2	526.59	182.76	34.70	343.92	-1.07
Feb	569.5	563.02	211.25	37.52	341.77	-31.78
Mar	663.8	541.39	130.83	24.17	410.56	-11.91
Apr	776.0	592.99	244.59	41.25	348.40	-33.96
May	911.7	483.57	201.85	41.17	281.62	-25.35
Jun	1077.7	796.34	10.58	1.33	655.56	-302.38
Jul	1019.9	1556.37	4.88	0.3	1551.49	-1062.92
Aug	986.1	1474.78	503.74	34.16	971.04	-76.39
Sep	1074.3	2471.72	1286.84	52.06	1184.88	-276.57
Oct	1187.2	1588.41	218.80	13.74	1369.62	-326.02
Nov	1195.8	1916.93	603.48	31.48	1313.45	-205.44
Dec	1240.7	2199.37	292.43	13.29	1906.94	-460.64
Total	**-**	**14711.28**	**4022.03**	**27.34**	**10689.24**	**-2815.06**

Sourse: *Commersant Weekly,* No 5, 1993, p.13 and CBR, published in *Voprosy Ekonomiki* No 1, 1994, p.61

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