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Options, Futures, and Other Derivatives in Russia: An Overview

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Waldemar Rotfuß

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Non-technical Summary

The Russian market for financial derivatives, which exists only since 1992, underwent in the last fifteen years difficult periods and experienced rapid changes. After a two-year pause following the default crisis in 1998, Russian exchanges reopened their floors to derivatives trading. Exchange-based trading in financial derivatives restarted in October 2000 when the Saint Petersburg Currency Exchange (SPCEX) introduced currency and equity-based derivative instruments to its trading floor. This work provides a descriptive analysis of the development of Russia's derivatives markets since this date.

In Russia, as of today, derivatives are traded on the over-the-counter (OTC) market and on six different exchanges. While data on exchange-traded derivatives are made accessible by the exchanges organizing the trading, information on OTC trading is limited to the participating institutions and seems effectively impossible to access. For the analysis of the OTC market, this work relies on data from the Central Bank of Russia that is prepared for its monthly foreign exchange market overview and, furthermore, for the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity. The Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity is conducted by the Bank of International Settlements, which mandates central banks of participating countries to collect information on the foreign exchange and derivatives trading in their respective markets.

The data analysis reveals that from 2000 through 2006, turnover of exchange-traded derivatives grew dramatically with average annual growth rate of 168 percent. The monthly turnover of OTC foreign exchange derivatives has grown from April 2004 through April 2007 at an average annual rate of 47 percent. Among the derivatives exchanges, the dominant two—the Russian Trading System (RTS) and the Moscow Interbank Currency Exchange (MICEX)—claim over 90 percent of the total exchange-traded derivatives turnover. The impressive growth rates are, therefore, largely attributable to these two exchanges. Today, equity derivatives are exclusively traded on the exchange floor of RTS. MICEX specializes in currency-based derivatives. Futures trading began earlier than options trading and takes up over 90 percent of the total trading of exchange-traded derivatives. Derivatives based on equity and currency dominate the market, while the trade in derivatives based on commodities or interest rate remains marginal. On the OTC market, foreign exchange swaps in RUR against USD and in USD against EUR count to the most-traded instruments.

Despite considerable growth, trading volume in derivatives has in general lagged behind the nationwide trend on other financial markets, especially on Russian equity and currency spot markets. Market participants and regulators attribute this lag, as well as the reluctance of domestic and foreign investors to participate in the market for derivatives, to the deficient legal and regulatory environment and emphasize the need for a reliable legal infrastructure that will provide protection for investors, enhance transparency, and encourage market participation.

Options, Futures, and Other Derivatives in Russia: An Overview^{*}

Waldemar Rotfuß

Mannheim October 1, 2007

Abstract

This work provides a descriptive overview of Russian markets for financial derivatives. Available figures for the exchange-traded and over-the-counter-traded derivatives in Russia show that the Russian derivatives markets experienced enormous growth rates since the financial crisis in 1998. Starting from a very low level, turnover of exchange-traded derivatives in Russia rose from 2000 to 2006 on average 168 percent per year and reached a total turnover of EUR 102 billion in 2006. Among futures, equity futures, followed by currency futures, are the most traded exchange-traded derivatives in Russia. Turnover of exchange-traded derivatives on interest rates, bonds or even commodities represent only a very small fraction of the total turnover. Available figures for the Russian OTC foreign exchange derivatives market suggest for the period between April 2004 and 2007 an annual turnover growth rate of 47 percent. Foreign exchange swaps in RUR against USD and in USD against EUR and other currencies were the most popular OTC foreign exchange derivatives in April 2004 and 2007.

JEL Classification: G1 - G15

Keywords: Russia, Financial Derivatives Market, Russian Financial Derivatives Markets

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Corresponding Author: Waldemar Rotfuß, Centre for European Economic Research (ZEW), L 7, 1, DE-68161 Mannheim, Germany, Tel: +49-(0)621-1235-141, e-Mail: rotfuss@zew.de. I thank Tereza Tykvova (ZEW), Wojtek Piaskowski (ZEW), and in particular Igor Merkuriev (CBR) for helpful comments. I am especially indebted to Sergej Kalinin (SPBEX), Andrey Galushkin (SPCEX), Nikita Woltschkov (SPBEX) for substantial data provision. I also thank Nataliya Matosova and especially Uyanga Turmunkh for excellent research assistance. All remaining errors are mine.

1. Overview of the market

Since the beginning of trading in derivative instruments in Russia in 1992 the developmental stages of Russian derivatives markets have been plagued by dominance of speculative trading, underdeveloped legal and regulatory infrastructure, defective governance, and instability, culminating finally in the financial crisis of 1998 and the consequent sharp decline in trade. However, the market virtually resurged in 2000, as old and new exchanges opened their floors to derivatives trading, following similarly regenerative developments on other financial markets. The relatively slow re-institution and growth of derivatives markets compared to spot markets has been attributed partly to the inherently higher risk associated with derivatives trading and partly to the lack of participant confidence in governance and reliability of trade organizers on these markets. On October 13, 2000, the Saint Petersburg Currency Exchange (SPCEX) began trading in currency and equity based derivative instruments, underlying assets of which included the exchange rate of USD to RUR and ordinary shares of Unified Energy Systems. Also in 2000, the Moscow Interbank Currency Exchange (MICEX) re-opened its floors to derivatives trading, enabling market participants to begin trading in futures on USD in November 2000. In September 2001, the Russian Trading System Stock Exchange (RTS) launched, together with the Stock Exchange Saint Petersburg (SPBEX), a joint market for futures and options (FORTS) and began trading in equity based instruments on ordinary shares of a number of major Russian companies, including Gazprom, Lukoil, Surgutneftegaz, and Unified Energy Systems, as well as in futures on Russian equity indices.

Today, trading in derivative instruments in Russia is organized on the over-the-counter market and on four Russian exchanges. The major share of exchange-traded derivatives concentrates almost exclusively on the following four exchanges: Russian Trading System Stock Exchange (RTS), Moscow Interbank Currency Exchange (MICEX), Saint Petersburg Currency Exchange (SPCEX), and Stock Exchange Saint Petersburg (SPBEX).² Judging by the turnover, RTS and MICEX provide the largest trading floors, followed by SPBEX and SPCEX. In 2006 turnover of derivative instruments on Russian exchanges totaled EUR 102 billion, of which RTS and MICEX jointly claimed 99 percent. Figures of the over-the-counter (OTC) trading for 2007 are not completely available, but turnover figures show, that in April and August 2007 the Russia's OTC foreign exchange derivatives had a size of EUR 461 billion and EUR 781 billion, respectively. Table 1 provides an overview of tradable derivative instruments on the four Russian exchanges and the Russian OTC derivatives market. The trading includes for example futures and options contracts, terms of which are specified by the respective exchanges as well as outright forwards, foreign exchange swaps, forward rate agreements or cross currency swaps. In 2006, futures and options that were traded actively on the

² There are two other exchanges—the Saint Petersburg Futures Exchange (SPBFE) and the National Mercantile Exchange (NAMEX)—that provide or planning to provide trading in derivative instruments. Since SPBFE provides trading in only Non-Russian underlyings and NAMEX has not yet introduced any derivative instruments, these exchanges are discarded from the following analysis.

Table 1: Tradable derivative instruments on four major Russian exchanges and the Russian OTC derivatives market in 2006

Instrument / Market	RTS	MICEX	SPCEX	SPBEX	OTC*
Currency Derivatives					
- Futures on EUR/RUR		■		■	
- Futures on EUR/USD		■		■	
- Futures on USD/RUR	■	■	■	■	
- Options on EUR/USD futures contract			■		
- Options on USD/RUR futures contract	■				
- Outright Forwards / FX Swaps based on RUR/USD					■
- Outright Forwards / FX Swaps based on USD/EUR					■
- Outright Forwards / FX Swaps based on EUR/RUR					■
- Outright Forwards / FX Swaps based on other Currencies					■
- OTC Options based on RUR					■
- OTC Options based on USD					■
- OTC Options based on EUR					■
- OTC Options based on other Currencies					■
Interest Rate Derivatives					
- Futures on MosIBOR	■	■			
- Futures on MosPrime3M		■			
- Forward Rate Agreements					■
- Cross Currency Swaps					■
- Interest Rate Swaps					■
Equity and Fixed Income Derivatives					
- Futures on 10y Moscow City Bond	■				
- Futures on 3y Moscow City Bond	■				
- Futures on Eurobonds by Russian Federation	■				
- Futures on Gazprom	■				
- Futures on Lukoil	■				
- Futures on Norilsk Nickel	■				
- Futures on Rosneft	■				
- Futures on Rostelecom	■				
- Futures on RTS Index	■				
- Futures on Sberbank	■				
- Futures on Surgutneftegaz	■				
- Futures on Unified Energy Systems	■				
- Options on Gazprom futures contract	■				
- Options on Lukoil futures contract	■				
- Options on Norilsk Nickel futures contract	■				
- Options on Rostelecom futures contract	■				
- Options on RTS Index futures contract	■				
- Options on Unified Energy Systems futures contract	■				
- Other Equity and Fixed Income Derivatives					■
Commodity Derivatives					
- Futures on Crude Oil (BRENT)				■	
- Futures on Crude Oil (URALS)	■				
- Futures on Gold	■				
- Options on Jet Fuel			■		
- Other Commodity Derivatives					■

* April 2007. Source: RTS, MICEX, SPBEX, SPCEX, BIS, Piskulov (2006, 2007). Table created by ZEW.

exchange floors comprised 20 different underlying assets for the futures contracts and 9 for the options contracts. The underlying assets are formed by ordinary shares of leading Russian enterprises, stock indices, foreign currencies, commodities, interest rates, and long term debt of the City of Moscow, as well as of the Russian Federation. Among all Russian exchanges, the RTS offers the highest number of tradable derivative instruments. In particular, futures based on equity or commodities were exclusively traded on RTS. While RTS apparently specialized in equity derivatives, MICEX offers almost exclusively trading in currency derivatives. Besides the recent prosperity of Russian exchange-traded derivatives and their variety, Russian OTC derivatives market, in particular the Russian OTC foreign exchange derivatives market, is still by far larger. Mainly outright forwards, foreign exchange swaps, cross currency swaps, and interest swaps were traded on this market.

This paper aims to provide an overview of the Russian financial derivatives market. However, it has to be stressed that there are no comprehensive statistics, which provide a clear picture of the whole Russian derivatives market. Thus, it is very probable that especially the Russian OTC derivatives markets is nowadays well above statistics, reported in the following sections, both in turnover and traded contracts. Another source of information about the whole Russian financial derivatives market, with a focus on the Russian OTC derivatives market, is provided by Piskulov (2006, 2007), who presents results from two surveys that were conducted among major Russian banks. One of these surveys shows that lions's share of the whole Russian financial derivatives market consists out of currency derivatives (93 percent). The rest consists out of interest rate derivatives (5 percent), equity and fixed income derivatives (less than 2 percent) and commodity derivatives (around 0.2 percent). But, these results are difficult to compare with other sources on the Russian OTC derivatives market presented in this paper, though they provide in some point a comparable structure of the whole Russian derivatives market.

The remainder of this paper is organized as follows. The first section gives an overview of the structure and the dynamics of the Russian financial derivatives market. Main regulatory issues are presented in Section 2. Section 3 deals with the organization of trade of financial derivatives on Russian securities exchanges, while Section 4 concludes.

1.1. Evolution of the derivatives market

Available figures for the exchange-traded and over-the-counter-traded derivatives in Russia show that the Russian derivatives markets experienced enormous growth rates since the financial crisis in 1998. Starting from a very low level, turnover of exchange-traded derivatives rose from 2000 to 2006 on average 168 percent per year. Trading in futures clearly dominated the floors, with futures turnover comprising 92 percent and options turnover making up only 8 percent of the total turnover of EUR 102 billion in 2006. Among futures, equity futures, followed by currency futures,

are the most traded exchange-traded derivatives in Russia. Turnover of exchange-traded derivatives on interest rates, bonds or even commodities represent only a very small fraction of the total turnover. Available figures for the Russian OTC derivatives market suggest smaller growth rates for OTC derivatives turnover. Also, starting from a low level, monthly turnover on the Russian OTC foreign exchange derivatives market rose from EUR 145 billion in April 2004 to round about EUR 461 billion in April 2007, an increase of 47 percent per year. In the following, all statistics are displayed in EUR. Depending on the source, they were converted into EUR in accordance to the exchange rate between EUR and the national currency or the USD. In all currency translations, unless stated otherwise, appropriate daily, monthly or annually averages were used. All presented average turnover growth rates were calculated as geometric means.

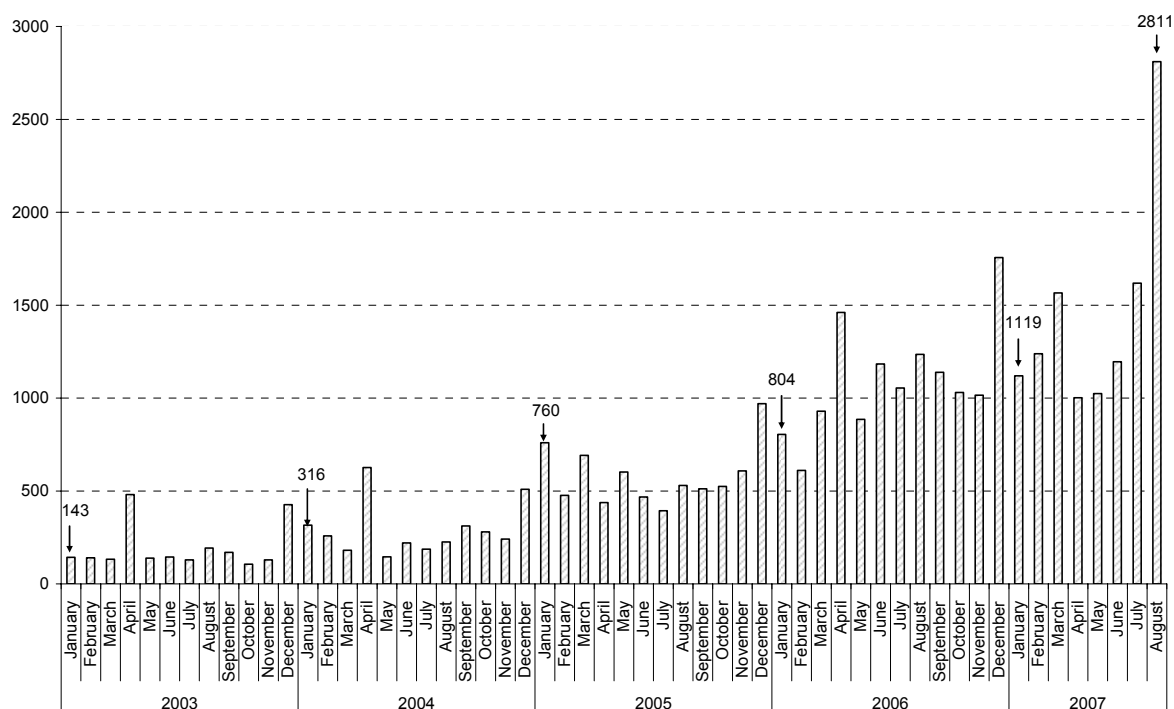
1.2. OTC derivatives

Despite the enormous growth rates the documentation of the activity on the over-the-counter (OTC) derivatives market in Russia is extremely deficient. Since the beginning of 2003, the Central Bank of Russia (CBR) reports a monthly foreign exchange market overview that covers partly the Russian OTC market. The report comprises average daily turnover statistics of interbank forward conversion transactions. Another relatively consistent and systematic snapshot on Russia's OTC market, which allows international comparisons, is the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity, conducted in Russia by the CBR for the Bank of International Settlements (BIS). Furthermore, the National Foreign Exchange Association (NFEA) conducts annual surveys about the Russian OTC derivatives market, which are summarized in Piskulov (2006, 2007). Other participating institutions (banks or non-financial institutions) do not systematically report data on OTC derivatives transactions. In this paper and in the following, the data on the OTC market are drawn from the aggregate numbers prepared by the CBR for its monthly foreign exchange market overview and for the triennial BIS survey. All these statistics give a consistent, though not complete, overview of the OTC derivatives market in Russia. The results from the annual NFEA surveys are not included in the analyses, because in most cases they do separate between OTC and exchange-traded derivatives and are, therefore, difficult to compare with presented statistics. Nonetheless, the surveys evidence the existence of the Russian OTC interest rates derivatives market, although all other sources conclude that there is no such market in Russia.

1.2.1. Currency derivatives

Judging by the monthly series of average daily turnover of interbank forward conversion transactions in Figure 5, the activity on the Russian OTC foreign exchange market rose from January 2003 to August 2007 by roughly 1900 percent. The highest turnover since 2003 has been reported for August 2007 (the last

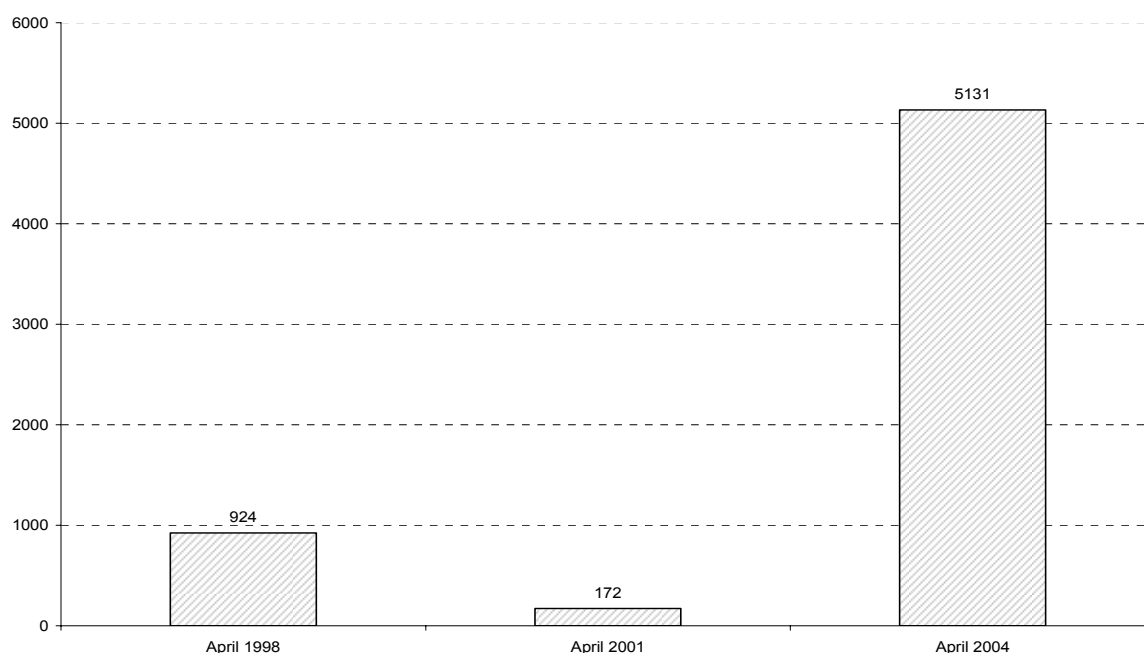
Figure 1: Average Daily Turnover of Interbank Forward Conversion Transactions (Forwards FX Transactions) in Russia (in EUR million)



Source: CBR, ZEW calculations.

available figure). However, it seems that the Russian interbank market for forward foreign exchange transactions has been stable for the last eighteen months (since March 2006). These figures show clearly a positive evolution of the Russian OTC market for forward exchange transaction, but are hard to compare with other national OTC markets. According to the numbers provided by the Bank of International Settlements, Russia's OTC market hardly reflects the size of its economy. In terms of average daily turnover based on numbers from the month of April 2004 alone, with a daily turnover slightly exceeding EUR 5.1 billion, Russia falls in the same group as Poland, whose GDP is almost half the size of Russia's (see BIS 2004 or ABN AMRO 2007). Yet, this number is a considerable improvement to the average daily turnover reported to be EUR 0.2 billion in April 2001 and EUR 0.9 billion in April 1998, see Figure 2. The improvement of daily turnover from April 2001 to April 2004 is due to the increase of trading in foreign exchange swaps (FX swaps), which were, according to the statistics, barely traded before in Russia. In particular, the turnover of outright forwards almost quadrupled from EUR 0.17 billion in 2001 to EUR 0.76 billion in 2004, while FX swaps showed an average daily turnover of almost EUR 4.4 billion in April 2004. Therefore, the most traded instruments on Russian OTC derivatives market in April 2004 were the foreign exchange swaps. This is likely to be also in April 2007 (daily turnover figures of outright forwards and FX swaps will be available from BIS in December 2007), since total turnover figures presented in Table 2 indicate, in comparison to outright forwards, higher turnover in FX swaps.

Figure 2: Daily Average Turnover of Outright Forwards and FX Swaps in Russia in April 1998, 2001, and 2004 (in EUR* million)



Source: BIS, CBR, ZEW calculations. * Value for April 1998 in ECU. All values were converted into EUR (ECU) using following exchange rates: 1.0826 USD/ECU (April 1998), 0.8929 USD/EUR (April 2001), 1.1993 USD/EUR (April 2007).

Table 2 presents the turnover of foreign exchange derivative instruments in Russia in August 2007 (turnover for the same instruments in April 2001 and April 2007 is presented in Table 14 and Table 15 in the appendix), that is also classified by the types of instruments and the participating party. Again, it clearly shows, outright forwards and foreign exchange swaps in RUR against USD and in USD against EUR and other currencies are by far the most popular instruments. Total turnover of OTC foreign exchange derivatives amounted in August 2007 to EUR 781 billion. In April 2004 and April 2007 this turnover amounted to EUR 145 billion and EUR 461 billion, respectively. The increase between April 2004 and April 2007 amounts to 218 percent or circa 47 percent per year. In comparison to the series of daily averages in Figure 1, but to a lesser extend, the turnover of OTC foreign exchange derivatives rose by 70 percent between April and August 2007. Projecting the mean of the turnover figures for April and August 2007 to an annual basis suggests that the total turnover on the Russian OTC foreign exchange derivatives market amounted to EUR 7.4 trillion in 2007. Yet, the figure is not very reliable and may be very biased, since it relies only on two observations. Furthermore, it is very likely that the presented BIS figures do not cover the whole OTC (foreign exchange) market.

Further BIS statistics suggest trading of derivative instruments in Russia is very intensive between financial institutions and, as one would expect, largely short-term. In April 2004 only a small fraction (7.5 percent or EUR 11 billion out of EUR 145 billion, that are displayed in Table 14) were traded between financial and non-financial institutions. In contrast, the share of outstanding amounts of derivative

Table 2: Turnover of OTC Foreign Exchange Derivatives in nominal principal amounts in August 2007 in Russia (in EUR million)¹

Instruments										
	RUR against									
	USD	EUR	JPY	GBP	CHF	CAD	AUD	SEK	Other	Total
Outright Forwards, total	53,594	1,803	31	1	0	0	0	1	0	55,430
-with reporting dealers	18,557	397	31	0	0	0	0	0	0	18,985
-with other financial institutions	27,650	405	0	0	0	0	0	0	0	28,056
-with non-financial customers	7,387	1,000	0	1	0	0	0	1	0	8,389
Foreign Exchange Swaps, total	218,210	5,477	0	0	0	0	0	0	0	223,687
-with reporting dealers	164,423	1,700	0	0	0	0	0	0	0	166,122
-with other financial institutions	49,802	2,722	0	0	0	0	0	0	0	52,525
-with non-financial customers	3,985	1,055	0	0	0	0	0	0	0	5,039
Total	271,804	7,280	31	1	0	0	0	1	0	279,116

Instruments										
	USD against									
	EUR	JPY	GBP	CHF	CAD	AUD	SEK	Other	Total	
Outright Forwards, total	1,527	368	3,070	48	2	341	0	326	5,682	
-with reporting dealers	416	91	79	44	0	8	0	174	811	
-with other financial institutions	101	1	16	4	1	1	0	151	276	
-with non-financial customers	1,010	275	2,976	0	1	331	0	1	4,594	
Foreign Exchange Swaps, total	151,972	31,166	35,832	4,174	11,082	794	35	6,426	241,481	
-with reporting dealers	116,380	22,170	26,921	2,058	10,113	644	34	4,441	182,761	
-with other financial institutions	31,406	3,631	2,261	1,523	421	123	1	1,676	41,042	
-with non-financial customers	4,186	5,365	6,650	593	548	26	1	308	17,676	
Total	153,499	31,534	38,903	4,222	11,084	1,135	35	240,412	480,824	

Instruments										
	EUR against									
	JPY	GBP	CHF	CAD	AUD	SEK	Other	Total	Rest ²	Total ³
Outright Forwards, total	388	51	42	0	0	0	10	491	179	61,783
-with reporting dealers	10	0	40	0	0	0	10	61	103	19,960
-with other financial institutions	1	0	1	0	0	0	0	2	76	28,410
-with non-financial customers	377	51	0	0	0	0	0	428	1	13,412
Foreign Exchange Swaps, total	8,140	1,744	86	66	232	0	22	10,291	3,753	479,212
-with reporting dealers	7,672	1,535	51	66	232	0	22	9,578	2,578	361,040
-with other financial institutions	92	167	7	0	0	0	0	267	839	94,672
-with non-financial customers	377	42	27	0	0	0	0	446	336	23,497
Total	8,528	1,796	128	66	232	0	32	10,782	10,470	781,192

¹ All values were converted into EUR at the USD/EUR rate 1.3501 (average rate for April 2007). Outright forwards include non-deliverable forwards and other contracts-for-differences. Swaps are considered to be a single transaction, in that the two legs are not counted separately, but include "tomorrow/next day" transactions. Figures are not adjusted for local double-counting and cross-border double-counting.

² Remaining turnover between other currencies, which is not included in the turnover of RUR, USD, and EUR against other currencies.

³ Total turnover of RUR, USD, and EUR against other currencies includes turnover in the column Rest.

Source: BIS, CBR, ZEW calculations.

instruments of credit institutions with non-financial institutions (here not specifically shown) was almost 44 percent. The maturity of almost 95 percent of all outstanding Russian OTC foreign exchange derivatives (here also not specifically shown) was less than one year. Only a small fraction, in particular less than 5 percent, of reported outstanding amounts, had a remaining maturity between one and five years at the end of June 2004. The share of OTC foreign exchange derivatives with maturity over five years was nearly zero.

1.3. Exchange-traded Derivatives

In comparison to the documentation of the OTC derivatives market, the documentation of exchange-traded derivatives in Russian is by far better. All four Russian exchanges provide deep statistics of their derivatives markets. Yet, the documentation is not always uniform, however, it is possible to give a very clear picture of the activity and evolution of this exchange-traded derivatives market.

Table 3 summarizes, on annual basis, the dynamics of total trade volumes for futures and options, as well as the dynamics of trade volumes for individual derivative instrument groups, categorized by the underlying asset types. The figures are reported in millions of euros. As can be clearly seen from this table, the derivatives market in Russia developed significantly over the past years. The turnover rose from EUR 0.3 billion in the year 2000 to over EUR 102 billion in 2006. More precisely, in 2001, three years after the Russian financial crisis, derivatives trading resurged on Russian markets, when the Saint Petersburg Currency Exchange (SPCEX) re-opened its trading floor, enabling its participants to trade in currency and equity based futures contracts. Options trading began in 2001, when the Russian Trading System (RTS) introduced options on Gazprom and Unified Energy Systems futures contracts. Trade in futures began earlier and has consistently prevailed on the markets, taking up the dominant share of the turnover and claiming over 90 percent (EUR 94 billion) of the turnover in 2006. The volume of options traded in 2006 comprised a share of slightly over 8 percent (EUR 8.5 billion) of the turnover. However, this share of 8 percent represents a substantial improvement from the 0.5 percent (EUR 3 million) that it took in 2001. The whole exchange-traded derivatives market is dominated by two exchanges, namely RTS and MICEX, claiming 99 percent of the total turnover in 2006. While RTS apparently specialized in equity derivatives, MICEX offers almost exclusively trading in currency derivatives. However, all four exchanges trade in currency based futures, whereby MICEX—with a share of over 90 percent—stands out as the major market. In addition, interest rate based futures are traded both on RTS and MICEX. In 2006, RTS and SPCEX traded in options based on currency, with RTS also trading in options based on equity.

Overall, among futures, derivative instruments that yielded largest turnover in 2006 were equity (70 percent) and currency (29 percent) based futures. Turnover of commodity or interest rate based futures were still marginal in 2006, not exceeding 1 percent of the total futures' turnover. Among equity futures, futures contracts on

**Table 3: Annual Turnover of Exchange-traded Derivatives in Russia
(aggregated statistics in EUR million)**

	2000	2001	2002	2003	2004	2005	2006
Futures	275	739	3,265	5,802	8,911	23,950	93,946
Futures on Stocks, Stock Indices, and Bonds	248	523	3,079	5,523	8,145	17,551	65,818
Futures on Commodities	-	-	-	-	-	100	776
Futures on Currencies	27	216	185	279	767	6,300	26,808
Futures on Interest Rates	-	-	-	-	-	-	545
Options	-	3	99	2,433	6,620	2,362	8,540
Options on Stocks, Stock Indices, and Bonds	-	3	50	327	716	2,317	8,492
Options on Commodities	-	-	50	698	77	40	35
Options on Currencies	-	-	-	1,409	5,827	5	13
Total	275	742	3,364	8,235	15,531	26,312	102,487

" - " Turnover does not exist.

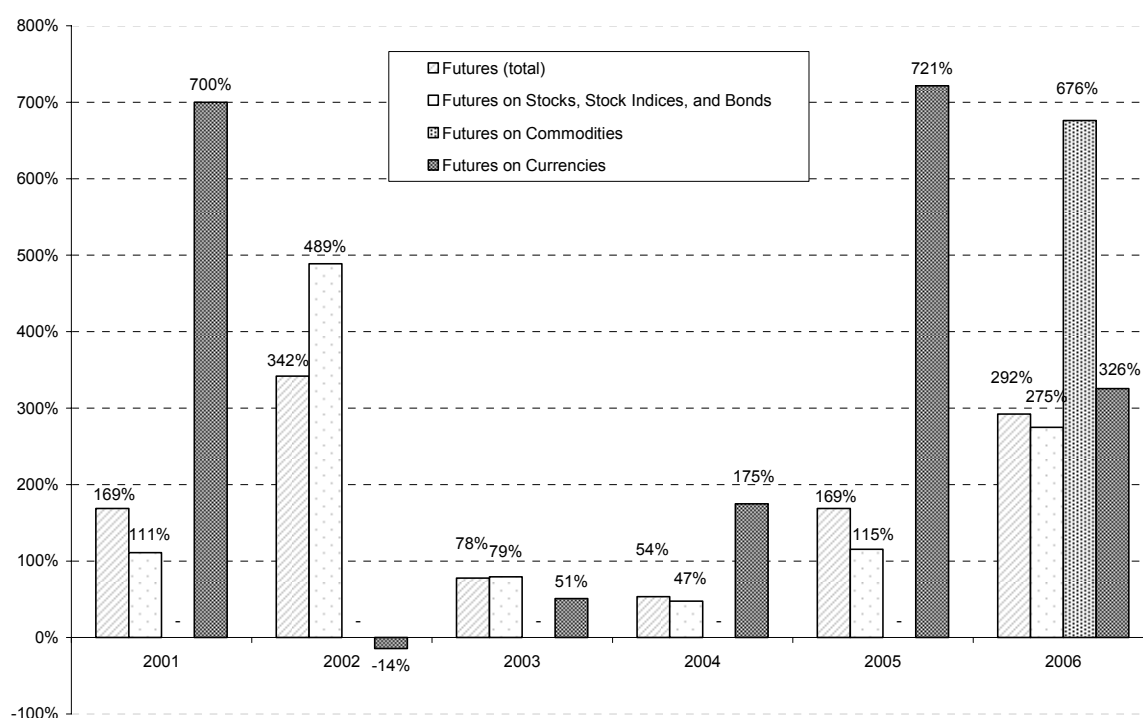
Source: RTS, MICEX, SPCEX, SPBEX, ZEW calculations.

ordinary shares of Gazprom (20 percent of the total), futures on RTS index (21 percent of the total), and futures contracts on the exchange rate of USD to RUR (26 percent of the total) proved to be the most liquid. Options trading focused on futures that are based on ordinary shares of major Russian corporations, such as Gazprom, Lukoil, and Unified Energy Systems. In the period from 2000 to 2006, futures on stocks, stock indices, and bonds claimed on average 84 percent of the market for futures, reaching their peak share of 95 percent in 2003 and the lowest value of 70 percent in 2006. Currency based futures constituted on average 16 percent of the market, with their share growing—with fluctuations—from 10 percent in 2000 up to 29 percent in 2006. Despite the reported participant interest in recently introduced commodity futures, turnover of commodity based futures was completely absent until 2005. However, it is still noteworthy that in 2006 the turnover of commodity futures exceeded the numbers of 2005 by a factor of 7. Interest rate based futures were introduced by RTS as early as 2002, but their trade volume amounted only to EUR 0.6 billion in 2006, thus forming the lowest trade volume among all futures. Options trading began in 2001 on the trading floor of RTS. In 2001, market participants traded options contracts with underlying assets comprising futures contracts on ordinary shares of Gazprom and of Unified Energy Systems. The turnover of options in 2001 amounted to only EUR 3 million. Over the following 5 years, volume of options grew at first sharply reaching its peak share of 43 percent in 2004, then falling down to 9 percent in 2005, and settling around 8 percent in 2006—a share value well above the initial share of 0.4 percent in 2001. Among the traded options, popularities of individual underlying asset types have continually shifted. In 2001, trading took place exclusively in equity based options contracts. In 2002, equity and commodity options were traded in equal volumes. In 2003, over 55 percent of the turnover of options went to currency based contracts. In 2004, currency based options accounted for 88

percent of the total options turnover, while commodity based options took up a negligible share. 2005 saw the turnover share of currency based options plunging from 88 down to 0.2 percent and of equity (and bonds) based options resurging to claim over 98 percent of the total turnover of options. In 2006, equity remained the single most popular underlying asset type, with options based on equity (and bonds) accounting for over 99 percent of the options' turnover.

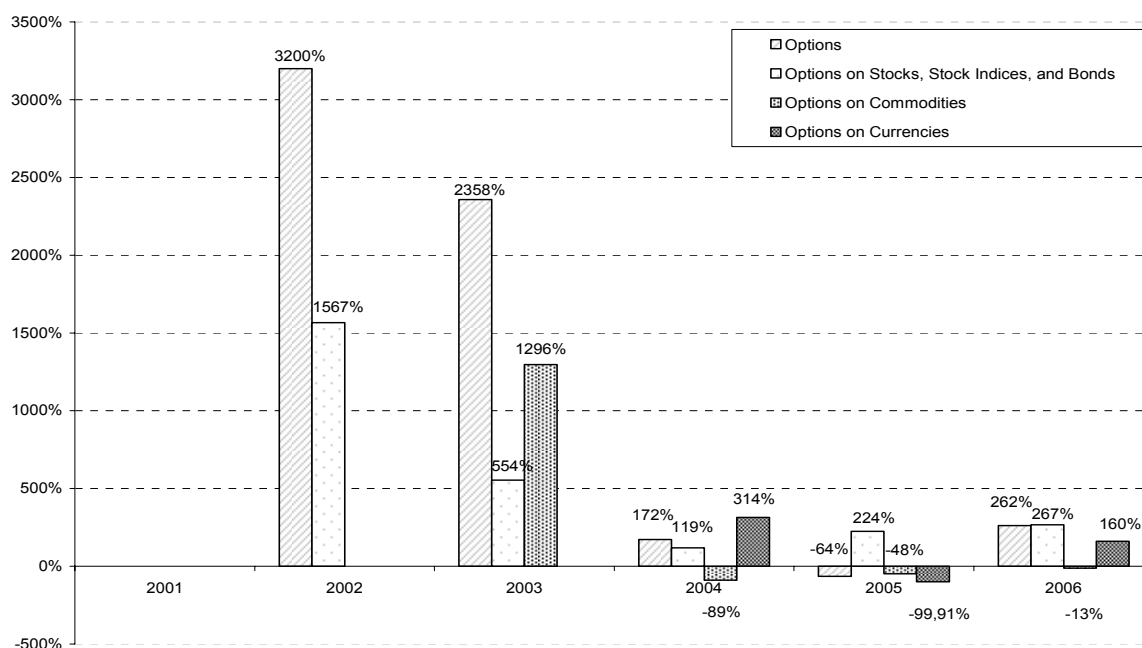
Figure 3 and Figure 4 present the growth dynamics of Russian derivatives markets. Figure 3 summarizes the development on the futures markets. The bars show the annual percentage changes in turnover of equity-based futures, currency-based futures, commodity-based futures, and all futures respectively. While the annual turnover growth rates of single futures groups have fluctuated from year to year, the total turnover grew steadily and dramatically. Overall, the futures market grew in the period from 2000 to 2006 at an average annual rate of 164 percent. Turnover growth of individual derivative types has been relatively unsteady but also impressive: trading in equity-based futures grew at an average annual rate of 153 percent, and turnover of currency-based futures grew at an average rate of 216 percent a year. Figure 4 shows the parallel development on the options markets. Compared to the futures market, turnover growth of options has been less steady. On average, the total turnover of options grew at an annual rate of 391 percent. However, annual growth has fluctuated around 2000 percent in the years 2002 and 2003 and around 200 percent in the years 2004 – 2006, exhibiting even a negative number in 2004 and 2005.

Figure 3: Annual Turnover Growth of Futures on four major Russian Exchanges



Source: RTS, MICEX, SPCEX, SPBEX, ZEW calculations.

Figure 4: Annual Turnover Growth of Options on four major Russian Exchanges



Source: RTS, MICEX, SPCEX, SPBEX, ZEW calculations.

Table 4: Monthly Turnover of Exchange-traded Derivatives in Russia in 2006 (aggregated statistics in EUR million)¹

Instruments	2006											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Futures	4,063	4,937	7,701	7,934	10,952	10,048	6,973	8,907	8,417	9,502	8,922	8,714
Futures on Stocks and Bonds	2,733	3,817	5,146	6,078	7,948	6,064	5,280	6,366	6,091	6,330	6,317	6,242
Futures on Commodities	-	-	-	-	-	66	122	143	163	124	94	91
Futures on Currencies	1,330	1,120	2,555	1,856	2,996	3,819	1,512	2,328	2,089	2,922	2,422	2,349
Futures on Interest Rates	-	-	-	-	8	99	59	70	74	126	89	32
Options²	281	392	630	715	1,002	790	309	502	943	1,006	1,081	1,499
Options on Stocks and Bonds	279	390	626	711	996	786	307	499	938	1,000	1,075	1,491
Options on Commodities	1.2	1.6	2.6	3.0	4.2	3.3	1.3	2.1	4.0	4.2	4.5	6.2
Options on Currencies	0.4	0.6	1.0	1.1	1.5	1.2	0.5	0.7	1.4	1.5	1.6	2.2
Total	4,344	5,329	8,330	8,649	11,954	10,839	7,282	9,409	9,360	10,508	10,004	10,214

¹ Total turnover in this table amounts to EUR 106.222 billion and differs by EUR 3.735 billion from the total turnover in 2006 displayed in Table 3. The main reasons for this deviation are, firstly, different exchange rates, used to convert the numbers in EUR, and, secondly, minor differences in the data sources.

² Monthly trade volume of options on different underlyings (stocks and bonds, commodities, and currencies) were estimated, using monthly CBR trade volume data of all options and the distribution of options' turnover in 2006 in Table 3.

Source: CBR, ZEW calculations.

As seen in Table 3, these fluctuations are mostly due to the changes in the turnover of currency-based options, which took up the largest share of the total turnover of options in 2003 and 2004 and shrank drastically in 2005. While trading in currency-based options slowed in 2005 and 2006, equity-based options maintained a steady growth rate, which averaged around 390 percent per annum in the observed period. Turnover of commodity-based options peaked in 2003, but has in general followed a downward trend. A closer look at the dynamics of the exchange-traded derivatives market in 2006 is provided by the monthly turnover figures in Table 4. In agreement with other statistics, it shows, again, an enormous growth of Russian derivatives market. Monthly turnover of futures has more than doubled since the beginning of 2006. Turnover of options, starting from a lower level, more than quintupled in 12 months. In terms of monthly growth rates, monthly turnover of futures and options rose on average 7 and 16 percent, respectively, since the beginning of 2006.

1.3.1. Stock and stock index derivatives

Table 5 lists all equity and equity index based derivative instrument types traded on the major Russian exchanges in the period from 2000 to 2006 and the annual turnover pertaining to the individual derivative instrument types. It can be deduced from the figures in the table that by far the most liquid instruments—in terms of trade volumes—are the derivatives, the underlying assets of which include the RTS index and the ordinary shares of Gazprom, Lukoil, and Unified Energy Systems. As of 2006, equity, equity index, and interest rate based derivatives were traded exclusively on the trading floor of the Russian Trading System (RTS).

Table 5: Annual Turnover of Exchange-traded Equity and Equity Index Derivatives in Russia (in EUR million)

	2000	2001	2002	2003	2004	2005	2006
Derivatives on Gazprom	24	36	144	414	1,885	4,682	23,600
Derivatives on Lukoil	-	24	339	830	1,374	4,289	7,160
Derivatives on MICEX 10 Index	-	-	0.4	0.003	-	-	-
Derivatives on Norilsk Nickel	-	-	-	-	18	103	292
Derivatives on Rosneft	-	-	-	-	-	-	17
Derivatives on Rostelecom	-	-	20	146	151	191	562
Derivatives on RTS Index	-	-	-	-	-	3,583	23,918
Derivatives on S&P / RUIX Index	-	7	178	88	35	2	-
Derivatives on Sberbank	-	-	-	-	-	14	261
Derivatives on Surgutneftegaz	6	17	40	209	198	97	183
Derivatives on Unified Energy Systems	218	442	2,407	4,151	5,192	6,642	17,920
Total	248	526	3,129	5,839	8,854	19,604	73,914

Source: RTS, MICEX, SPBEX, SPCEX, ZEW calculations.

Table 6: Monthly Turnover of most important equity derivatives in Russia in 2006 (in EUR million)

Instruments	2006											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Futures on Unified Energy Systems												
Turnover	406	1,241	1,333	1,594	1,160	1,247	1,281	1,607	1,647	997	1,927	1,687
Traded contracts	1.0	2.4	2.4	2.6	2.2	2.4	2.3	2.7	2.8	1.7	2.9	2.2
Open Interest	56	84	75	83	74	49	55	71	75	78	92	84
Futures on Gazprom												
Turnover	964	605	1,162	2,166	3,840	2,121	1,241	2,300	1,968	1,854	1,350	1,561
Traded contracts	1.4	0.9	1.7	2.6	4.4	2.7	1.5	2.6	2.3	2.1	1.6	1.8
Open Interest	71	86	76	115	91	60	63	81	73	73	79	81
Futures on RTS Index												
Turnover	715	1,289	1,826	1,679	2,237	1,952	2,187	1,877	1,661	2,649	2,323	1,582
Traded contracts	0.4	0.6	0.8	0.6	0.9	0.9	0.9	0.7	0.7	1.1	0.8	0.6
Open Interest	47	76	71	70	66	37	43	47	36	80	100	83

Source: RTS, ZEW calculations.

Recent developments of the most important equity futures—in terms of turnover, traded contracts and open interest—are displayed in Table 6. According to these figures, monthly turnover of Unified Energy Systems and RTS index futures rose on average 14 and 7 percent, respectively. Turnover of Gazprom futures did not add much to the overall turnover growth rate of futures on equity in 2006. In comparison to the average monthly growth rate of equity and equity index, turnover of Gazprom futures rose on average only 4 percent per month in 2006. A closer look at monthly turnover figures of all equity and equity index futures—not displayed in Table 6— shows that turnover of futures on shares of smaller Russian companies, e.g. on Rostelecom, Norilsk Nickel, Sberbank, Lukoil or Rosneft, have shown enormous monthly growth in 2006, too, whereas their turnover growth rates were above the average growth rate of the Gazprom futures.

RTS specifies the properties of the standardized contracts traded on its floor, including the underlying asset type, contract size, quotation currency and specification, settlement type, and delivery details. Futures contracts based on ordinary shares of Gazprom are referred by their delivery months. Gazprom share based futures have the delivery months of four successive quarterly months in the cycle March, June, September, and December. The last trading day is the day preceding the 15th of the delivery month. The delivery period is limited to one day, namely the business day following the last trading day. The futures price is quoted in RUR per 100 shares of Gazprom, with the minimum price movement that can occur being RUR 1 per 100 shares. Contracts are sized in 100 shares and are to be settled in physical delivery of the asset. Contracts are settled on the delivery date at the last trading day price via the RTS Settlement House and Depositary N 883 of Gazprombank. Futures contracts based on ordinary shares of Lukoil are specified similarly, except for the contract size and quotation specification. Each Lukoil futures contract comprises 10 shares and is quoted in RUR per 10 shares. Futures contracts

based on ordinary shares of Unified Energy Systems are sized in 1000 shares and are quoted in RUR per 1000 shares. Settlement and delivery specifications are identical to those of Gazprom futures. Lukoil and Unified Energy Systems futures contracts are settled via the RTS Settlement House and Depository Clearing Company.

The underlying asset of the RTS index futures is the RTS index, managed and calculated by the RTS Stock Exchange. Contracts are sized and quoted in USD. The value of one contract is twice that of the RTS index, and the price is quoted in 100 times the RTS index. The delivery months are four successive quarterly months in the cycle March, June, September, and December. Contracts are settled in cash on the business day following the last trading day—which in turn is the day preceding the 15th of the settlement month—at a price in USD equivalent to twice the average value of the RTS index calculated during the last trading hour of the last trading day. The RTS index futures also serve as the underlying asset to the RTS index options contracts, which are American call and put options, exercisable on any trading day prior to expiration. One options contract gives the holder the right to buy or sell one RTS index futures contract by a specified date. Minimum price movement is specified as 0.05 RTS index points or USD 0.1 per contract. The contract months are two successive quarterly months in the cycle March, June, September, and December. Contracts expire at the close of the trading session on the last trading day for the underlying futures contract. The last trading day for the underlying futures contract is also the last trading day for the options contract.

Each options contract based on futures contracts of Gazprom, Lukoil, or Unified Energy Systems ordinary shares gives its holder the right to buy or sell one futures contract on the respective shares. The options are all American options with the minimum price movement specified at RUR 1 per contract. Strike price intervals are RUR 500 per contract, which is to say RUR 500 per 100 shares of Gazprom, 10 shares of Lukoil, and 1000 shares of Unified Energy Systems. The expiration day is stated in the code of each contract and is specified for long-term options as two trading days before the delivery day for the underlying futures contract and for short-term options as one or two months before the delivery day for the underlying futures contract. The last trading day is the expiration day of the contract.

1.3.2. Interest Rate Derivatives (incl. bonds)

Interest rate and bond derivatives play a minor role in the overall turnover of Russian derivatives. In 2006 only EUR 1 billion of interest rate and bonds derivatives were traded on Russian exchanges, what was roughly 1 percent of the overall turnover of derivatives on Russian exchanges. Today, only interest rate futures on the ruble overnight credit (deposit) rate MosIBOR (the Moscow Inter-Bank Offered Rate) and the MosPrime3M (Moscow Bank Offered Three-month Ruble Money Market Rate), with a turnover of EUR 545 million in 2006, are traded on RTS and MICEX. Other exchange-traded interest rate derivatives do not exist. Among bonds derivatives, futures on the 10-year and the 3-year bond of the City of Moscow were the most

traded bond derivatives in 2006, however, their turnover amounted only to EUR 395 million. Turnover of futures on the Eurobonds of the Russian Federation is negligible. Their turnover amounted only to EUR 1 million in 2006. This is, again, quite surprising, because derivatives on interest rates and bonds do belong to the most traded derivatives worldwide.

Table 7: Annual Turnover of Exchange-traded Interest Rate and Bond Derivatives in Russia (in EUR million)

	2000	2001	2002	2003	2004	2005	2006
Derivatives on 10y Moscow City Bond	-	-	-	-	-		296
Derivatives on 3y Moscow City Bond	-	-	-	-	-	263	99
Derivatives on Eurobonds of the Russian Federation	-	-	-	-	0.43	-	1
Derivatives on Moscow City Loan Bond	-	-	-	11	5	1	-
Derivatives on MosIBOR	-	-	-	-	-	-	509
Derivatives on MosPrime3M	-	-	-	-	-	-	36
Total	-	-	-	11	6	264	941

Source: RTS, MICEX, ZEW calculations.

1.3.3. Currency Derivatives

As already mentioned, currency based futures are traded predominantly on MICEX's trading floor, with a share of circa 90 percent among the four major Russian exchanges. Table 8 summarizes the annual turnover of currency derivatives on the exchange rate of EUR to RUR, the exchange rate of USD to RUR, and the exchange rate of EUR to USD. The enormous annual turnover variations displayed in the table result mainly from the beginning and termination of trading in derivative instruments on different exchanges. Among all the three types of exchange-traded currency derivatives, contracts on the exchange rate of USD to RUR can be singled out as the most liquid and the most important.

Table 8: Annual Turnover of Exchange-traded Currency Derivatives in Russia (in EUR million)

	2000	2001	2002	2003	2004	2005	2006
Derivatives on EUR/RUR	0.002	0.5	3	1	1,528	0.3	5
Derivatives on EUR/USD	-	-	-	1,482	3,880	294	327
Derivatives on USD/RUR	27	216	182	204	1,186	6,010	26,488
Total	27	216	185	1,688	6,594	6,305	26,820

Source: RTS, MICEX, SPBEX, SPCEX, ZEW Calculations.

Futures based on the exchange rate of USD to RUR, which are traded on the MICEX floor, are specified as follows. The underlying asset for the futures contracts on USD is the United States dollar. Each contract entails one thousand United States dollars. The futures are quoted in RUR per USD, to four decimal places. Accordingly, the minimum price movement that can occur in trading is RUR 0.0001 per USD. The last trading day for a futures contract with a specified delivery month is the delivery day of the contract. A delivery month for the future can be any given month of the year. The delivery day for the future with a specified delivery month is the 15th of the delivery month or the next business day following the 15th of this month, in case the 15th is not a trading day. Futures are settled in cash, as the difference between the USD/RUR exchange rate, determined as volume weighted average USD/RUR rate on the MICEX's trading session on the final settlement day. Monthly trade volume of futures on the USD/RUR exchange rate, traded on MICEX, together with the number of traded contracts and the monthly average of open interest in RUR are summarized in Table 9. In contrast to the three most important equity futures, on average, monthly turnover of the USD future on MICEX almost doubled since the beginning of 2006. Yet, its average monthly growth rate amounted only to circa 6 percent in 2006.

Table 9: Monthly Turnover of USD/RUR Futures on MICEX in 2006 (in EUR million)

Instruments	2006											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Futures on USD/RUR												
Trade Volume	1,253	1,053	2,422	1,761	2,851	3,646	1,459	2,223	1,971	2,848	1,958	2,247
Traded contracts	1.5	1.3	2.9	2.2	3.7	4.6	1.9	2.9	2.6	3.6	2.6	3.0
Open Interest	47	51	57	50	46	38	38	44	38	44	38	40

Source: MICEX, ZEW Calculations.

1.3.4. Commodities derivatives

Commodity derivatives traded on Russian exchanges are summarized in Table 10. BRENT and URALS crude oil, gold, diesel, jet fuel, and residual fuel form the underlying assets of the derivatives traded in the period from 2002 to 2006. The turnover of commodity derivatives has remained marginal throughout the period. The largest share of trading in 2006 went to futures contracts based on gold and crude oil. Trade in options contracts based on commodities has been trivial. The futures contracts on gold and crude oil were traded on RTS Stock Exchange in 2006. One gold futures contract entails 1 troy ounce of affine gold bullion and is quoted in USD per 1 troy ounce. The settlement months include all months of the year except October. The last trading day is the day preceding the 15th of the settlement month, and the last settlement day is the business day following the last trading day. The final settlement price is set equal to the morning gold fixing in the London spot market on the settlement day in USD per troy ounce.

The futures contracts on crude oil are sized at 10 barrels per contract. The contract price is quoted in USD per barrel to two decimal places and, accordingly,

with a minimum price movement of USD 0.01 per barrel. The final settlement price is set equal to the closing price for the underlying asset on the settlement day calculated by PLATTS.³ The futures contracts are cash-settled, with settlement month and period specified similarly to the specifications of gold futures.

Table 10: Annual Turnover of Exchange-Traded Commodity Derivatives in Russia (in EUR million)

	2000	2001	2002	2003	2004	2005	2006
Derivatives on Crude Oil (BRENT)	-	-	28	433	44	100	-
Derivatives on Crude Oil (URALS)	-	-	-	-	-	-	109
Derivatives on Gold	-	-	-	-	-	-	667
Derivatives on Diesel	-	-	11	152	20	-	-
Derivatives on Jet Fuel	-	-	11	19	11	40	35
Derivatives on Paper Newsprint Europe Index	-	-	-	88	-	-	-
Derivatives on Residual Fuel (MAZUT)	-	-	-	6	2	-	-
Total	-	-	50	698	77	140	811

Source: RTS, SPBEX, SPCEX, ZEW Calculations.

2. Regulatory issues

Regulatory issues concerning security markets and especially markets for derivative instruments in Russia are regulated by different laws and institutions. Supervision of those markets, and in particular of Russian exchanges, is subject to different authorities, such as the Federal Service for Financial Markets (FSFM).⁴ In the following section legal framework is given in accordance with the information provided by the two major Russian exchanges (RTS and MICEX), the Federal Service for Financial Markets, and partly by the CBR.

2.1. Regulating acts

Russian security markets and transactions on security markets are regulated in general by the Federal Law on the Securities Market, Number 39-FZ as amended, enacted on April 22, 1996. Russian securities are, in addition, subject to the Russian Federation's Civil Code, regulations issued by the CBR, as well as regulations issued by other regulatory agencies, such as the FSFM and the self-regulatory organizations. In order to give an overview of the pertinent laws, statutes, and orders, in accordance with the information provided by MICEX, Table 16 and Table 17 in the appendix display legal documents that regulate activity of derivatives market and of market participants in Russia. However, the overview is not complete, since Russian derivatives market is also partly regulated by general laws such as the Russian

³ <http://www.platts.com/>.

⁴ Rus.: Федеральная служба по финансовым рынкам России (ФСФР России).

Federation's Civil Code, the Russian Federation's Mortgage Law, and the Russian Federation's Law about the Central Bank of Russia.

2.2. Regulating and supervising institutions

In general, it can be stated that Russian financial markets are regulated by the CBR, the Russian Ministry of Finance, and partly by the FSFM. The CBR and the Russian Ministry of Finance regulate for example the (OTC and exchange-traded) foreign exchange market, the money market, most of the equity and bond markets, and insurance companies. The FSFM, according to their website, controls and supervises activity in the Russian financial markets, including the activity of exchanges, and issues the relevant regulations. It also regulates the investment of pension savings. The FSFM was officially established in March 2004, by the presidential decree and took over the controlling and supervising functions concerning financial markets—including activities of exchanges—which had until then been divided under the former Federal Commission for the Securities Market, the former Ministry of Labor and Social Development, the former Ministry of Antitrust Policy and the Ministry of Finance. The main functions, powers and organization of the FSFM are defined by the governmental decree number 206 "On the Federal Service for Financial Markets", dated 9 April 2004, and by the statute on the Federal Service for Financial Markets, approved by the governmental decree number 317, dated 30 June 2004. More specifically, the FSFM controls and supervises the activities of issuers, professional market participants and their self-regulatory organizations, by:

- licensing professional securities market participants,
- authorizing self-regulatory organizations,
- approving standards for securities issuances and prospectuses,
- and classifying and defining different types of securities.

Furthermore, the FSFM has the authority to take punitive measures against violators of regulations, including canceling of licenses, levying fines, carrying out of enforcement actions and petitioning for criminal prosecution. However, any action taken against an alleged violator must be filed through the courts, so that the ultimate jurisdiction over enforcement of securities regulations rests with the courts. In addition to its role as the controlling and supervising authority, the FSFM also acts to promote development of financial markets in Russia, by analyzing relevant issues and making proposals to the Federal Government to improve existing laws, as well as drafting new laws and regulations. Today, the FSFM is also in charge of managing the Commission for Commodity Exchanges. However, it will most likely yield this responsibility after relevant legislation is passed.

Completion of transactions in securities (that includes among others clearing, settlement and depositary services) in Russia requires possession of the license of a professional securities market participant performing broker and/or dealer activities (hereafter "License of a Professional Securities Market Participant"). In addition to the

License of a Professional Securities Market Participant and for completion of transactions in futures and options contracts, underlying assets of which are securities, the Law on Commodity Exchanges and Exchange Trading (February 20, 1992) and the governmental decree (October 9, 1995) on licensing activity of exchange intermediaries and brokers, dealing with futures and options contracts, require following licenses:

- Exchange Intermediary License to trade futures and options, for settlement or broker firms performing broker activities
- Exchange Broker License, for traders of settlement or broker firms performing dealer activities.

The licenses mentioned above are issued by the FSFM and are valid for a 3-year renewable period. Trade in foreign currency and/or provision of intermediary services on the currency market requires the License of the Central Bank of the Russian Federation to provide banking services in rubles and foreign currency.

Until recently, membership in and recommendation of a self-regulatory organization (SRO) was a prerequisite for professional market participants to obtain a license from the FSFM. This requirement was repealed by the presidential decree of October 16, 2000, and professional participants may apply directly to the FSFM for a license. The FSFM decides on issuing a license within 30 days of application submission and within 15 days if the applicant presents a recommendation from a SRO in addition to the application documents. Moreover, the requirement that a recommendation from a SRO be provided prior to licensing still exists in a number of acts of the FSFM. According to the information provided by FSFM, the SROs currently operating in Russian securities markets include the Professional Association of Registrars, Transfer Agents and Depositories (PARTAD), the National Stock Market Association (NFA), the National Association of Stock Market Participants (NAUFOR), The National League of Management Companies (NLU), the Professional Institute of Placement and Circulation of Equity Instruments (PROFI). PARTAD, established in Moscow on September 14, 1994, has been a SRO of registrars and depositories since 1997 and a SRO of clearing organizations since 2002. NFA was established in Moscow on July 9, 1996, and works in the areas of broker and dealer management of securities as well as depository activities. NAUFOR is a SRO composed of professional financial market participants and was established in November 1995. NLU and PROFIL were established in January 26, 2001 and October 29, 2003, respectively. PROFIL is a SRO composed of professional securities market participants who conduct broker or dealer activities in the securities market, among others for example financial consulting services or assistance in the placement or circulation of securities. NLU is a self-regulatory organization composed of professional securities market participants who manage investment funds and unit investment funds.

3. Organization of trade of derivatives on securities exchanges

In the following paragraphs, regulatory issues concerning trading and clearing of derivative instruments on RTS and MICEX derivatives market sections are described. No comments on regulatory issues concerning trading and clearing of derivatives on other four exchanges are reported; firstly, because trade volume on those exchanges, as a fraction of the total trade volume on all Russian exchanges, is around 1 percent, and, secondly, because regulatory issues are comparable with those of RTS and MICEX. All requirements for admission to trading on the MICEX Derivatives Market are described according to the MICEX Exchange and Derivatives Market Section rules and all regulatory issues concerning trading of derivatives on FORTS follow the RTS Exchange and FORTS rules of organization, clearing and settlement of derivatives.

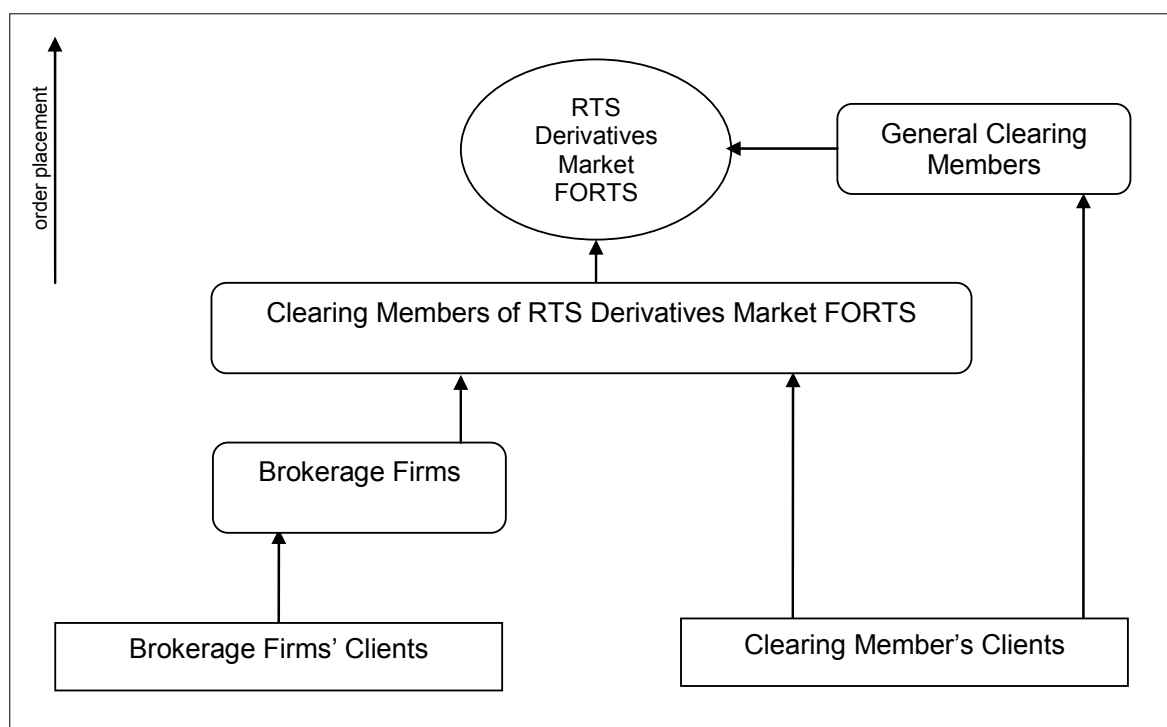
3.1. Russian Trading System Stock Exchange (RTS)

3.1.1. Trading

On the RTS Derivatives Market Section FORTS, trading in derivative instruments is arranged by general clearing members, clearing members of the derivatives section, brokerage firms, and their clients. Membership to RTS Derivatives Market Section is open only to legal entities, which are resident entities of Russia and hold appropriate licenses.

All FORTS members are classified as clearing and non-clearing members of the section. Clearing members are entitled to trade derivative instruments on their own behalf and for their own accounts, settle trades on their own behalf with the clearing centre, and clear, as well as settle, transactions of their clients and of section's non-clearing members. Non-clearing members are entitled to trade derivative instruments on their own behalf and for their own accounts, as well as for their clients' accounts. Transactions of non-clearing members and their clients are cleared and settled by one of the clearing members. Non-residents can participate in trading on FORTS by establishing an account with one of the FORTS members. Moreover, according to this structure, as additionally displayed in Figure 5, only general clearing members are allowed to place direct limit or market orders in the electronically order driven trading system. Brokerage firms and clients place only indirect orders, in particular, they place orders in the electronically order driven trading system only through the general clearing members or the clearing members of FORTS.

Figure 5: Organization of the RTS Derivatives Market FORTS



Source: RTS. Figure created by ZEW.

3.1.1.1. Authorization to trade

In order to be admitted to the RTS derivatives section as a clearing member, candidates must submit an application for membership in the RTS Derivatives Market Section FORTS, which will be examined by the RTS Derivatives Market Committee and the RTS Settlement and Risk Management committee. New clearing members must submit, in addition to legal requirements by Russian authorities, as explained in section 2, sound financial statements and, among other supporting documents, two recommendations from general clearing members, which have been on top positions in the activity rating of the derivatives section clearing members for three months prior to the new member's application. Furthermore, at least one of the recommending clearing members must be a member of the RTS Derivatives Market Committee at the time of the member's application. After admission to the derivatives section, new clearing members are obliged to contribute funds to the Contingency Fund and to deposit margin requirements for their own trades and for trades of their clients. Admission to FORTS as a non-clearing member is less restrictive. New non-clearing members must have, besides the exchange intermediary license from Russian authorities, a service agreement with an existing clearing member, sign the form of accepting risks associated with the transaction of derivative instruments, and register all their clients in the trading system. Furthermore, like clearing members, non-clearing members are obliged to deposit margin requirements for their own transactions and for transactions of their clients. Participation of clients in derivatives trading on FORTS does not stipulate any special requirements. A client can be any

legal entity or natural person, who signs a service agreement with a general clearing member, with a clearing member of FORTS or with a brokerage firm on FORTS.

Table 11: Authorization to trade FORTS-listed derivatives

Authorization / Type of Membership of the Section	Clearing Members	Non-Clearing Members
Entitled to trade for their own account	■	■
Entitled to trade for third parties (clients)	■	■
Entitled to settle and clear transactions	■	
Entitled to settle and clear transactions of Trading Members	■	

Source: RTS.

3.1.1.2. Trading hours, trading intervals, price fixing

The chronology of trading, clearing and offsetting sessions on FORTS is comparable to other exchanges and is shown in Figure 6. Each working day the main trading session starts at 10:30 a.m. and ends at 6:45 p.m. Moscow Time. According to the FORTS rules of a trading organization, additional trading session begins right after the end of the main trading session and ends right before the opening of the main trading session of the next trading day. FORTS rules do not exactly specify a session for offsetting of obligations between trading participants. They do, however, state that

Figure 6: Chronology of Trading, Clearing, and Offsetting of Obligations on the RTS Derivatives Market FORTS⁵



Source: RTS. Figure created by ZEW.

⁵ Additional trading session, not displayed in the figure, starts at 18:45 p.m. and ends at 10:30 a.m. Moscow Time the next trading day.

offsetting of obligations, resulting from a trading day, has to be conducted before the opening of the next trading day. On FORTS the clearing session begins at latest at 7:00 p.m. Moscow Time. After the clearing session, information on the clearing prices of a given trading day and information on the volume of open interest on every contract is handed over to the organizer of trading (RTS). Furthermore, clearing members as well as the settlement chamber, are informed about delivery obligations and, by the opening of the next trading session at the latest, the trading organizer is informed about any remaining obligations between clearing members and the clearing centre. The next trading day begins after the clearing centre has established new initial values of limits in the trading system, values of price change limits in clearing registers of clearing members and limits of open interest of clearing members together with basic amounts of the initial margin.

3.1.2. Clearing

Clearing on FORTS is performed by the closed joint-stock company RTS Clearing Centre. It is the central counterparty to all transactions in derivative instruments on RTS, and thus adheres to separation of risks connected to clearing services and organisation of trading. Risk control, associated with clearing services and organisation of trading on FORTS, is assured by different measures. In particular, main instruments are several margin requirements, as well as the daily settlement of obligations and other risk reducing measures, such as security funds and strict procedures in case of default.

The initial margin, the current margin, the final margin, and the variation margin are the most important obligations of FORTS members. The initial margin denotes an amount of funds, which has to be placed on the clearing member's margin account at the beginning of a trading session. This amount results from member's desired positions in the derivatives instruments and the established requirements for each particular derivative instrument by the clearing centre. In accordance with FORTS rules, it is not possible to open positions without providing required funds. The current margin, which is equal to the initial margin at the beginning of the trading session, is an amount of funds calculated subject to the deposit requirements during the trading and the clearing session. It changes in accordance with arranged transactions, declared bids, and crediting or debiting transactions performed against the margin account. The final margin is, to be accurate, the current margin at the end of the clearing session. Finally, the variation margin defines the clearing member's mutual obligations, calculated in the course of the clearing session, with regard to his open positions. In other words, the variation margin denotes the change of value of open positions, as a result of the daily mark-to-market procedure.

To reduce default risk, RTS stipulates contract price limits for each derivative, i.e. specifies a maximum price change for a contract during a single trading session. The price limits are not fixed, but are allowed to change during a single trading session. Provided that the price of a derivative instrument reaches a pre-specified

limit during a trading session, price limits and the initial margin, in particular, for the affected derivative instrument, are raised by 50 percent from the initial values for this trading session. In case of a second hit of the limits, limits and deposit requirements are calculated subject to disposable funds, which were added by market participants in order to open new positions, and subject to the value of the guarantee and the reserve fund. The system of setting price limits and initial margin requirements is literally tied to the procedure of force liquidation of open positions. Positions of market participants that are not covered by margin requirements after readjustment of the initial margin are normally closed within one trading session by the clearing centre.

The above-mentioned guarantee and reserve funds, which are also required by Russian authorities, are another block of measures to reduce risks connected to derivatives trading on FORTS. The guarantee fund consists of clearing members' contributions, while the reserve fund is made up of RTS's own resources, whose value is increased as the average of open interest on FORTS grows. All these funds are placed on the accounts of the clearing centre with the RTS Settlements Chamber and the Savings Bank of Russia. Their value is updated on a regular basis on RTS's website and amounted, as of February 21, 2007, to approximately EUR 21 million (RUR 703 million).⁶ In addition to established guarantee funds, the Russian Trading System Stock Exchange and the RTS Clearing Centre obtained USD 1 million each in default insurance. The use of the initial margin, the security funds and other collaterals is used in the following order in case of a clearing member's default: First of all, the initial margin of the defaulting member is used to meet his obligation. In case his initial margin does not cover his obligations, his contributions to the guarantee fund and then the means of the reserve fund are used. In case of any further obligations, other clearing members' contributions to the guarantee fund and, finally, the means of the clearing centre are used to settle the obligations of the defaulting clearing member.

In summary, clearing of derivatives instruments on FORTS is conducted by a one single clearing centre, which is a central counterparty to all transactions. Risks associated with those clearing services are controlled by several measures. The most important risk control measures are the mark-to-market procedure, which offset daily obligations between clearing members, and the initial margin requirement. Additional measures, especially control of price limits, the use of force liquidation of open positions during a single trading session, and established guarantee funds, contribute to the reduction of associated risks.

3.1.3. Data recording

Data recording on FORTS is performed via RTS's own technical system and is partly published on the internet. The disclosed statistics comprise out of daily, weekly, monthly, quarterly, and annually summaries. Unlike other exchanges, RTS runs a

⁶ <http://www.rts.ru/?tid=260> (12.03.2007).

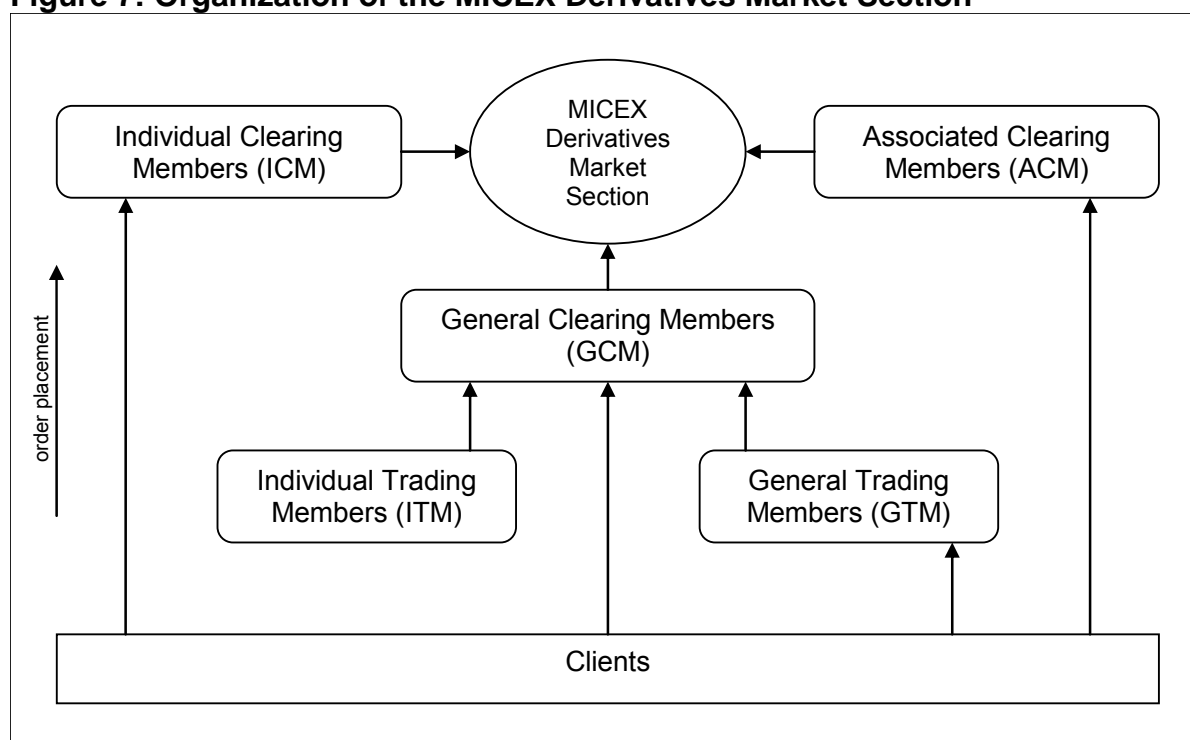
FTP server, where most of these statistics are freely accessible. Among publicly available statistics are, for example, the price, the traded number of contracts, the turnover in RUR, and the figures on open positions. Information about market participants, their transactions, and orders is provided only to the clearing and settlement organizations and not to the public.

3.2. Moscow Interbank Currency Exchange (MICEX)

3.2.1. Trading

The MICEX Derivatives Market Section consists of members of the section and of section members' clients. In particular, there are five categories of membership in the section, which are named as follows: General Clearing Members (GCM), Individual Clearing Members (ICM), Associated Clearing Members (ACM), General Trading Members (GTM), and Individual Trading Members (ITM). All these members, together with their clients, who are not members of the section itself, form the circle of market participants on the MICEX Derivatives Market Section. Figure 7 displays the organizational structure of the MICEX Derivatives Market and shows at the same time which of the market participants are allowed to place direct orders.

Figure 7: Organization of the MICEX Derivatives Market Section



Source: MICEX. Figure created by ZEW.

3.2.1.1. Authorization to trade

To be admitted to the derivatives market section on MICEX, a series of regulatory conditions, summarised in Table 12, must be fulfilled. First of all, all members of the section must be a legal entity, registered in Russia, and hold appropriate licenses

granted by Russian authorities. Clearing Members must be registered as a legal entity at least one year (two years for General Clearing Members) prior to their membership approval. Individual Trading Members and all other members, who want to trade futures and options not only for their own accounts, but also for third parties accounts, must hold the Exchange Intermediary License, granted by the FSFM. A further requirement, not displayed in Table 12, stipulates that traders of all members, who perform dealer activities, must hold the Exchange Broker License, also granted by the FSFM. General Clearing Members, who are allowed to trade and clear transaction on all MICEX sections, must have, in addition, the License of a Professional Securities Market Participant, granted by the FSFM. For admission, there are no equity capital requirements for Individual Trading Members. However, General Clearing Members must have an equity capital equal to or greater than EUR 10 million in order to be approved to the MICEX Derivatives Market Section. Other types of membership depend to a greater extend on the legal status of the member than on equity capital. However, the latter must still be equal to or greater than EUR 3 million for Individual and Associated Clearing Members and EUR 1 million for General Trading Members, who are classified as credit institutions. In contrast, Individual and Associated Clearing Members, who are classified as non-credit institutions, must have an equity capital at least of EUR 0.1 million. Non-credit institutions, who participate as General Trading Members in the section, need at least

Table 12: Admission requirements to the MICEX Derivatives Market Section

Requirements	GCM	ICM	ACM	GTM	ITM
Registration as a legal entity	■	■	■	■	■
Available Exchange Intermediary License to trade futures and options products	■	■	■	■	■
Existence of the legal entity, for credit institutions – existence of the licence to provide banking services	2 years	1 year	1 year	1 year	
Available license of a professional securities market participant performing broker and dealer activities at the time of application	■				
Equity capital for credit institutions (not less than) (in thousand EUR)	10 000	3 000	3 000	1 000	
Equity capital for non-credit institutions (not less than) (in thousand EUR)		100	100	50	
Profitable in the last accounting year	■	■	■	■	
Compliance with economic norms in the last accounting year (for credit institutions)	■	■	■	■	

Source: MICEX.

EUR 0.05 million equity capital to gain approval of their membership. Besides hard admittance requirements, any new member of the MICEX Derivatives Market Section must fulfil soft criteria, in particular must be profitable and show compliance with economic norms, in accordance with Instruction No. 1 of the CBR referring to compliance with economic norms, in the last accounting year prior his/her approval.

All members, which are approved to the derivatives market section on MICEX, must pay the entrance fee. The entrance fee differs for every type of membership and amounts, for example, to EUR 30 thousand and EUR 5 thousand for General and Individual Trading Members, respectively. Members, who do not possess the right to clear transactions, must be accepted for clearing services by one of the other members that possess the right to clear other members' transactions. Finally, at least one authorized representative trader with the Exchange Broker License must be accredited the member. All categories of membership in the MICEX Derivatives Market Section differ in the right to provide trading services to other market participants and effect settlements with the clearing organization.

Table 13 gives an overview of the above-mentioned rights. In brief, Individual Trading Members are allowed to carry out transactions only on their own behalf and for their own accounts. All other members are allowed to serve clients. Only clearing members (GCM, ICM, ACM) can effect settlement for the results of trading directly with the clearing organization. An Associated Clearing Member can carry out transactions only in derivative instruments put on a special list, which the exchange adopts for this purpose. General as well as Individual Trading Members offset their obligations only through General Clearing Members and are not allowed to use ICM and ACM for clearing and settlement of their transactions. Any individual or legal entity can participate in trading in the MICEX Derivatives Market Section as a client. Members of the section, who are entitled to serve clients, register their clients with the clearing organization and carry out transactions on their behalf and for their accounts.

Table 13: Authorisation to trade MICEX-listed derivatives

Authorisation / Type of Membership of the Section	GCM	ICM	ACM	GTM	ITM
Entitled to trade for their own account	■	■	■	■	■
Entitled to trade for third parties (clients)	■	■	■	■	
Entitled to settle and clear transactions	■	■	■		
Entitled to settle and clear transactions of Trading Members	■				

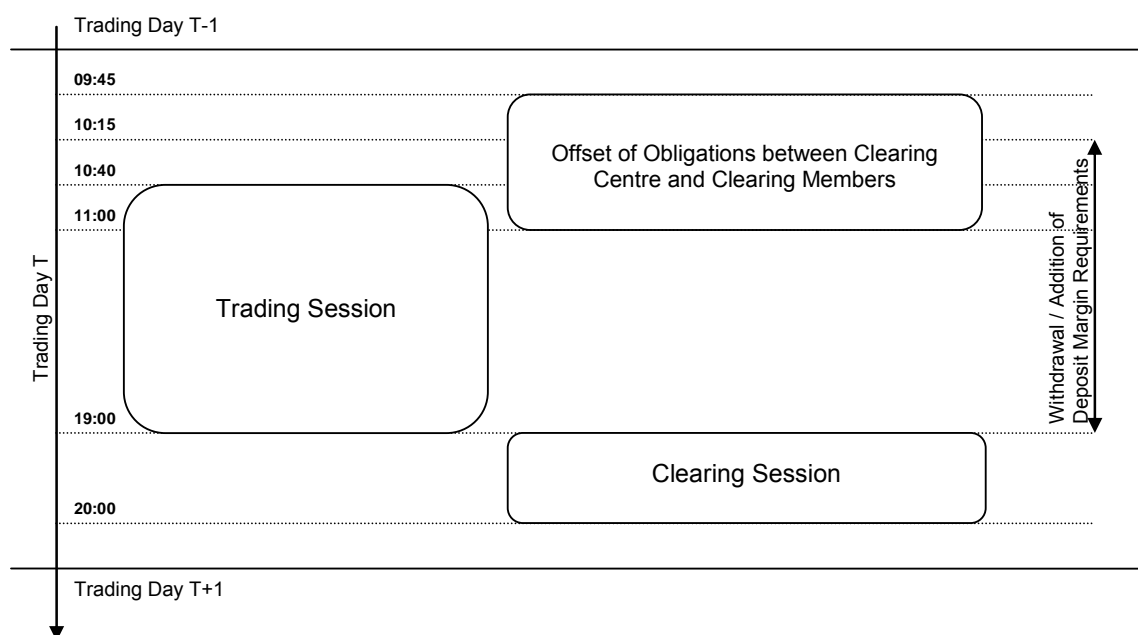
Source: MICEX, ZEW.

3.2.1.2. Trading hours, trading intervals, price fixing

The chronology of trading, clearing and offsetting sessions on the MICEX Derivatives Market Section is shown in Figure 8. In general, trading in derivatives instruments on MICEX is held each working day from 10:40 a.m. till 7:00 p.m. Moscow Time, simultaneously in all derivative instruments. All trading in the section is held

electronically, in the mode of anonymous continuous auction on the basis of limited orders and market orders. Clearing of transactions begins after the trading session and ends at 8:00 p.m. Moscow Time. Members of the section are informed about their obligations after the end of the clearing session and are required to offset their obligation with the clearing centre not later than 20 minutes after the start of the trading session the next trading day.

Figure 8: Chronology of Trading, Clearing, and Offsetting of Obligations on the MICEX Derivatives Market Section



Source: MICEX. Figure created by ZEW.

3.2.2. Clearing

Today, the clearing of transaction on MICEX is performed partly by MICEX itself and partly by the National Clearing Center, a subsidiary of MICEX, which is a legal entity registered as a credit institution. The National Clearing Center was founded in 2006, with the objective of achieving a separation of risks associated with clearing and non-clearing activities of MICEX. For the time being, the National Clearing Center acts as central counterparty only to transaction on MICEX's currency market, however, it will expand its activities to other market segments, including the Derivatives Market Section, the Equity and Bond Market, the Government Securities and Money Market, and the Commodity Market on MICEX, in the near future. Formally, it will then be a central clearing house to all transactions on MICEX.

Risk associated with clearing services performed by MICEX for its Derivatives Market Section is controlled by different measures. First of all, MICEX, as a clearing organization, obliges its derivatives section's members to variation and deposit margin requirements. Variation margin requirements are defined as claims or liabilities, according to the sign of the variation margin, against the clearing

organization. It is the change of value of open positions, as a result of daily revaluation and settlement of profits and losses (mark-to-market procedure). The settlement price used in the mark-to-market procedure is determined under the terms of exchange rules and is, in fact, a formalized algorithm, which calculates the most representative price for a given derivative instrument at the end of each trading day. While the variation margin affects daily profits of engagements in derivatives trading, the size of the deposit margin affects the ability to open positions in derivative instruments. Thus, in order to be able to open positions, clearing members must deposit margin requirements. The MICEX calculates the deposit margin requirements for every clearing member in the course of the clearing session, taking into account offsetting positions. The calculation of deposit margin requirements is based on the methodology of SPAN (Standard Portfolio Analysis of Risk), developed by the Chicago Mercantile Exchange (CME), in order to achieve an optimal trade-off between margin requirements and resultant costs. In case the deposited margin requirements of a clearing member exceed the obliged value, clearing members are allowed to withdraw excessive funds, otherwise are obliged to add the deposit margin. Clearing members, who do not comply with their margin requirements, face a strict procedure of forced liquidation of their positions. In addition, the margin requirements on MICEX depend on the rate of the deposit margin, which is set for every individual derivative instrument and the number of open positions in each trading account. The rate of the deposit margin, in turn, is set at the level of the two-day limit of the price change.

As another precautionary risk measure, MICEX establishes limits on value of open positions, volume of orders, market share of a single member, and the price change for all members and for the MICEX Derivatives Market as a whole. The value of open positions restricts the maximum loss of a member from his positions, in case of bad price changes. The cost estimate of net positions, resulting from bad price change, is determined in real-time mode in the course of trading. Calculation of limits in real-time mode enables the trading system to reject member's orders, in case their execution causes the excess of the limit or violates another precautionary risk measure. The defined price change limit sets the maximum deviation of the price from the settlement price, which in turn results from the clearing session at the preceding trading day. Similar to the restriction of open positions, all orders are rejected, when the quoted price in the submitted order exceeds the price change limit. Limits on the volume of orders are essential for each trading account and restrict the maximum summary volume of active buy and sell orders. The established market share limit caps the maximum share of positions in one trading account by defining the feasible number of open positions. Regardless of the size of member's order, an order is partly or fully rejected, if the limit of feasible positions is exceeded in the course of execution. Unless the cap of positions for a given series of derivative instruments is exceeded in one of member's trading account, all orders, coming from this member, are suspended until the number of open positions in those derivatives falls below the limit. In accordance with legal acts of Russian authorities, MICEX holds several security funds, in order to meet liabilities of defaulted members. These

funds were established by the MICEX's own resources to cover risks from clearing currency, interest, and equity derivative instruments and amount – as of February 28, 2007 – approximately EUR 7 million (RUR 250 million) for the Reserve Fund and again circa EUR 7 million (RUR 250 million) for the Guarantee Fund.⁷

In summary and according to the MICEX's clearing rules, the execution of participating parties' obligations is secured by defined price change limits, the value limit of open positions and their observance in real-time mode. The main instruments are, however, the mark-to-market procedure and the deposit margin, which has to be fulfilled before opening of positions. In addition, a strict procedure of forced liquidation of defaulters' positions secures a limit of losses in advance. All other obligations, which can not be avoided by defined preceding measures, shall be covered by established security funds.

3.2.3. Data recording

Data recording on MICEX is performed, too, via MICEX's own technical system and is partly published on the internet every day. However and in contrast to RTS, most of MICEX's statistics on the market activity, and in particular on the activity of the derivatives market, are not freely accessible. Detailed statistics are only offered for subscription. The freely disclosed statistics comprise out of daily, weekly, monthly, and annually summaries, which are in most cases available only in an aggregated form. Among publicly available statistics are, for example, the price and the traded number of contracts. Information about market participants, their transactions and orders is, too, provided only to the clearing and settlement organizations and not to the public.

4. Concluding Remarks

The recovery of security markets and in particular derivatives markets in Russia has been characterized by substantial and sustained growth in trade volumes on the leading exchange floors, expansion of instrument variety, qualitative and quantitative changes in the client base, and enhanced competitiveness. This trend toward greater volume and variety remained strong also in the year 2007. In the first seven months of 2007, the derivatives trading in Russia grew by a monthly average rate of 12 percent. According to this dynamic and measured on an annual basis, the exchange-traded derivatives market in Russian is likely to triple by the end of 2007. The variety of traded instruments has also been substantially expanded. In total, in the months from January through July 2007, over 20 new instruments were introduced. RTS has expanded its instrument variety most actively. In addition to its existing base of corporate-share-based futures, RTS has begun trading in futures based on ordinary shares of 7 more enterprises. Furthermore, the exchange has introduced 2 additional index-based futures and, the first in Russia, corporate-bond-based futures. It has also expanded the variety of its equity-based options, by adding 4 new options contracts

⁷ Exchange Review (2007, vol. 3, no. 41, p. 19) (rus. Биржевое обозрение, № 3 (41) 2007, с. 19).

based on equity-futures of Russian corporations. Another noteworthy addition is the MICEX index-based future that the exchange introduced at the end of June 2007. More and more Western banks, such as Goldman Sachs, Deutsche Bank, Raiffeisenbank Austria and among others the ABN AMRO Bank, have become members of Russian exchanges. However, in comparison with world markets and the size of Russia's economy, the Russian market for derivative instruments remains marginal in terms of variety and liquidity of traded instruments.⁸

In general, the growth dynamics of derivatives markets lag behind the nationwide development of other financial markets in Russia. Market participants and regulators attribute this lag, as well as the reluctance of domestic and foreign investors to participate in the market for derivatives, to the legal and regulatory environment and the consequent high risks of operating in the Russian derivatives markets.⁹ During the crisis in 1998, Russian banks refused to honour the non-deliverable currency forward contracts into which they had entered and simply walked away from their obligations. When foreign counterparties sought court protection, the Russian courts argued that non-deliverable forward contracts were a form of gambling and hence, unenforceable. The mass default, backed by court rulings, left a sore that deters foreign investors from doing derivatives business in Russia till this day. However, Russia's regulatory and market authorities are more than aware of the need for building a reliable legal infrastructure that will provide transparency for investors.

Federal Service for Financial Markets formed an agenda for regulatory and legal reforms, in order to bring Russian security markets to international standards. According to the FSFM, this plan was officially adopted by the Russian government in 2006 with the intention to put all necessary regulations into national legislation by 2008. To assure legal protection to derivatives market participants, the FSFM pushed for amendments to the Civil Code that will prevent exchange-traded derivative contracts from being classified as wagers and hence being unenforceable. In January 2007, the Duma amended the first paragraph of the Article 1062 of the Civil Code, which specifically denies judicial protection for claims based on wagers, by a second paragraph. The second paragraph explicitly excludes claims arising from trades that oblige one party or parties to pay a certain amount of money, where the amount of money being paid depends on price changes of commodities, securities, foreign exchange rates, interest rates, inflation rates, instrument baskets that are based on all or some aforementioned instruments, or events that are protected by other laws and are ex-ante uncertain, from being classified as wagers. All instruments mentioned in the second paragraph of the Article 1062 of the Civil Code are proprietary covered instruments, if at least one party is a legal entity with a valid banking license, license of a professional securities market participant performing

⁸ In 2006 and only on the Eurex turnover amounted to EUR 106 trillion, which is more than 1000 times greater than trade volume of EUR 102 billion on the four Russian exchanges in 2006.

⁹ In fact, only few Western banks are actually members of derivatives market sections on Russian exchanges.

broker and dealer activities, or at least one party of the transaction, which took place on an ordinary exchange, is an legal entity and holds a license that allows to conduct trades on exchanges. Claims from private investors that participate in aforementioned trades are proprietary covered, if and only if trades take place on an ordinary exchange. The amendments to the Article 1062 of Civil Code became effective in February 2007. To enable the Russian market to conform to international standards beyond these amendments, the FSFM also sees the need for legislation that specifically addresses derivative financial instruments. The law should provide common definitions of derivative instruments and their types, clearly establish parties' rights and obligations arising from transactions in these instruments, and determine requirements for market participants to provide greater security to mediator and trade-organizing institutions.

Despite recent prosperity of Russian exchanges and their markets for derivative instruments, Russian exchanges are in fierce competition with other financial centers across the globe, not only in trading in Russian securities, but also in trading in derivative instruments based on Russian securities.¹⁰ All in all, the current improvement of the legal framework of Russian financial markets may diminish current competitive disadvantages of Russian derivative markets and the time will tell how Russian exchanges and other financial market participants will use their new emerging possibilities.

¹⁰ On December 1, 2006, the London Stock Exchange and the OMX started trading in futures and options on Russian securities, which are traded on the London Stock Exchange's International Order Book. Furthermore, on April 23, 2007, Eurex also launched trading in Russian derivatives that are based on Russian stocks and indices.

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Appendix

Table 14: Turnover of OTC Foreign Exchange Derivatives in nominal principal amounts in April 2004 in Russia (in EUR million)¹

Instruments	RUR against								Total
	USD	EUR	JPY	GBP	CHF	CAD	AUD	Other	
Outright Forwards, total	2,002	384	0	15	0	0	0	2	2,403
-with reporting dealers	464	349	0	0	0	0	0	0	814
-with other financial institutions	617	15	0	0	0	0	0	0	632
-with non-financial customers	921	20	0	15	0	0	0	2	957
Foreign Exchange Swaps, total	41,847	86	0	0	0	0	0	0	41,933
-with reporting dealers	29,595	0	0	0	0	0	0	0	29,595
-with other financial institutions	11,906	85	0	0	0	0	0	0	11,991
-with non-financial customers	346	1	0	0	0	0	0	0	347
Total	43,849	470	0	15	0	0	0	2	44,336

Instruments	USD against							Total
	EUR	JPY	GBP	CHF	CAD	AUD	Other	
Outright Forwards, total	4,125	580	2,169	486	12	43	2,012	9,426
-with reporting dealers	1,272	185	485	107	1	1	468	2,519
-with other financial institutions	1,094	160	446	58	1	8	623	2,390
-with non-financial customers	1,758	235	1,237	321	10	34	921	4,518
Foreign Exchange Swaps, total	15,925	3,558	5,931	1,039	264	78	41,948	68,743
-with reporting dealers	10,343	2,289	3,843	637	43	8	29,630	46,792
-with other financial institutions	4,840	1,102	1,597	198	212	56	11,951	19,956
-with non-financial customers	741	167	491	203	10	15	367	1,994
Total	20,050	4,138	8,100	1,525	276	121	43,960	78,169

Instruments	EUR against							Rest ²	Total ³
	JPY	GBP	CHF	CAD	AUD	Other	Total		
Outright Forwards, total	163	815	18	0	0	4,508	5,504	15	17,348
-with reporting dealers	22	648	6	0	0	1,622	2,297	7	5,637
-with other financial institutions	30	128	2	0	0	1,109	1,268	6	4,296
-with non-financial customers	112	39	10	0	0	1,778	1,939	3	7,416
Foreign Exchange Swaps, total	787	474	27	0	0	16,010	17,298	101	128,075
-with reporting dealers	595	309	0	0	0	10,343	11,247	35	87,670
-with other financial institutions	159	154	11	0	0	4,925	5,250	46	37,243
-with non-financial customers	33	11	16	0	0	741	801	20	3,163
Total	951	1,289	44	0	0	20,518	22,802	116	145,423

¹ All values were converted into EUR at the USD/EUR rate 1.1993 (average rate for April 2004). Outright forwards include non-deliverable forwards and other contracts-for-differences. Swaps are considered to be a single transaction, in that the two legs are not counted separately, but include "tomorrow/next day" transactions. Figures are not adjusted for local double-counting and cross-border double-counting.

² Remaining turnover between other currencies, which is not included in the turnover of RUR, USD, and EUR against other currencies.

³ Total turnover of RUR, USD, and EUR against other currencies includes turnover in the column Rest.

Source: CBR, BIS, ZEW calculations.

Table 15: Turnover of OTC Foreign Exchange Derivatives in nominal principal amounts in April 2007 in Russia (in EUR million)¹

Instruments	RUR against									Total
	USD	EUR	JPY	GBP	CHF	CAD	AUD	SEK	Other	
Outright Forwards, total	15,632	668	0	0	0	0	0	0	0	16,300
-with reporting dealers	7,069	93	0	0	0	0	0	0	0	7,162
-with other financial institutions	4,388	181	0	0	0	0	0	0	0	4,568
-with non-financial customers	4,175	395	0	0	0	0	0	0	0	4,570
Foreign Exchange Swaps, total	120,060	3,927	0	0	0	0	0	0	0	123,987
-with reporting dealers	89,770	254	0	0	0	0	0	0	0	90,024
-with other financial institutions	27,249	2,212	0	0	0	0	0	0	0	29,460
-with non-financial customers	3,041	1,461	0	0	0	0	0	0	0	4,503
Total	135,692	4,595	0	0	0	0	0	0	0	140,287

Instruments	USD against									Total
	EUR	JPY	GBP	CHF	CAD	AUD	SEK	Other		
Outright Forwards, total	591	42	309	0	24	0	0	225	1,191	
-with reporting dealers	88	22	68	0	16	0	0	61	256	
-with other financial institutions	3	19	0	0	4	0	0	163	190	
-with non-financial customers	500	1	241	0	3	0	0	1	745	
Foreign Exchange Swaps, total	98,531	22,519	27,567	5,337	1,267	556	45	1,079	156,902	
-with reporting dealers	83,707	14,347	19,538	3,150	861	456	43	544	122,646	
-with other financial institutions	10,407	4,275	2,753	1,958	244	38	1	432	20,108	
-with non-financial customers	4,417	3,898	5,276	230	162	61	1	103	14,149	
Total	99,122	22,562	27,876	5,337	1,291	556	45	156,789	313,577	

Instruments	EUR against								Rest ²	Total ³
	JPY	GBP	CHF	CAD	AUD	SEK	Other	Total		
Outright Forwards, total	70	0	0	20	0	0	0	90	112	17,693
-with reporting dealers	70	0	0	20	0	0	0	90	30	7,538
-with other financial institutions	0	0	0	0	0	0	0	0	81	4,839
-with non-financial customers	0	0	0	0	0	0	0	0	0	5,315
Foreign Exchange Swaps, total	1,543	1,418	67	106	250	0	55	3,438	667	284,994
-with reporting dealers	1,229	1,293	10	103	250	0	0	2,886	308	215,864
-with other financial institutions	109	93	39	3	0	0	55	298	307	50,172
-with non-financial customers	205	33	17	0	0	0	0	254	52	18,957
Total	1,612	1,418	67	126	250	0	55	3,528	3,550	460,943

¹ All values were converted into EUR at the USD/EUR rate 1.3501 (average rate for April 2007). Outright forwards include non-deliverable forwards and other contracts-for-differences. Swaps are considered to be a single transaction, in that the two legs are not counted separately, but include "tomorrow/next day" transactions. Figures are not adjusted for local double-counting and cross-border double-counting.

² Remaining turnover between other currencies, which is not included in the turnover of RUR, USD, and EUR against other currencies.

³ Total turnover of RUR, USD, and EUR against other currencies includes turnover in the column Rest.

Source: CBR, BIS, ZEW calculations.

Table 16: Derivatives Market Regulation in Russia – part I –

Законодательство	Laws	Description
Постановление Федеральной комиссии по рынку ценных бумаг и Минфина РФ от 11 декабря 2001 г. №№ 33, 109н "Об утверждении Положения об отчетности профессиональных участников рынка ценных бумаг"	Decree of the FSFM and the Ministry of Finance of December 11, 2001, to ratify the regulations of financial reporting of professional securities market participants	The regulations ratified by the decree establish the structure and procedure concerning the presentation of financial reports by professional securities market participants and describe, among others, the responsibilities of market participants, the organizations authorized to examine participants' financial reports, and the form, content and procedure of presentation.
Постановление Федеральной комиссии по рынку ценных бумаг от 7 февраля 2003 г. № 03-8/пс "Об утверждении Положения о порядке проверки действий лиц, содержащих признаки манипулирования ценами на рынке ценных бумаг"	Decree of the FSFM of February 7, 2003, to ratify the regulations of the examination procedure of activities, containing signs of manipulation of prices on the securities market	The regulations ratified by the decree determine the procedure of examination by the FSFM of the facts, forming the grounds for presuming manipulation of prices of publicly traded securities in the activities of persons, and describe the obligatory actions to be taken in the process of examination by the issuing companies, professional securities market participants and other licensed by the FSFM persons.
Распоряжение Федеральной комиссии по рынку ценных бумаг от 14 августа 2002 г. № 991/р "Об утверждении Методических рекомендаций по заполнению форм отчетности профессиональных участников рынка ценных бумаг" (с изменениями от 17 марта 2004 г.)	Order of the FSFM of August 14, 2002, to approve the methodical recommendations concerning the preparation of financial reports of professional securities market participants	The methodical recommendations approved by the order are directed to be used by preparation of organizational reports by professional securities market participants. The recommendations give detailed instructions about filling out the appropriate forms, including, among others, the forms N020 ("Report of deals with non-residents"), N040 ("Information on transactions involving 15 or higher percent of securities of the same type of the same issuing company"), and N1100 ("Quarterly report of a professional securities market participant").
Закон РФ от 20 февраля 1992 г. № 2383-I "О товарных биржах и биржевой торговле" (с изменениями от 24 июня 1992 г., 30 апреля 1993 г., 19 июня 1995 г., 21 марта 2002 г., 29 июня 2004 г.)	Law of the Russian Federation of February 20, 1992, about commodity exchanges and exchange trading (with amendments of June 24, 1992, April 30, 1993, June 19, 1995, March 21, 2002, June 29, 2004)	The law on commodity exchanges and exchange trading regulates establishment and organization of commodity exchanges and trading on these exchanges, including trading in futures, options, and forward instruments, the underlying assets of which are formed by the commodities that the law permits to be traded on these exchanges. Section 1 defines and describes the sphere of activity of commodity exchanges, traded instruments, types of trade transactions, and exchange intermediaries. Section 2 lists the rules pertaining to the establishment and organization of commodity exchanges, including the requirements and rights of membership and the content of trading rules of the exchange. Section 3 deals with the organization of trade on the exchanges, trade participants and the types of transactions they are allowed to complete. In particular, transactions in futures and options contracts are to be completed only by licensed exchange intermediaries and exchange brokers. The licenses are issued by the Commission for Commodity Exchanges. Section 4 delegates the federal regulatory authority to the Commission, describes its functions (which include issuance and cancellation of licenses) and enforcement powers.
Постановление Федеральной комиссии по рынку ценных бумаг от 14 августа 2002 г. № 32/пс "Об утверждении Положения о клиринговой деятельности на рынке ценных бумаг Российской Федерации" (с изменениями от 26 декабря 2003 г., 15 декабря 2004 г.)	Decree of the FSFM of August 14, 2002, to ratify the regulations of clearing activity on the securities market of the Russian Federation (with amendments of December 26, 2003, December 15, 2004)	The regulations ratified by the decree establish the mandatory conditions to be met for undertaking clearing activities on the securities market and the rules for carrying out clearing activities.

Source: MICEX. Table created by ZEW.

Table 17: Derivatives Market Regulation in Russia – part II –

Законодательство	Laws	Description
Приказ Федеральной службы по финансовым рынкам от 15 декабря 2004 г. № 04-1245/пз-н "Об утверждении Положения о деятельности по организации торговли на рынке ценных бумаг"	Order of the FSFM of December 15, 2004, to ratify the regulations of activities in trade organization on the securities market	The regulations ratified by the order run parallel to the above-described law about commodity exchanges but apply in particular to the establishment and organization of stock and bond exchanges and trading on these exchanges, including trading in derivative instruments, the underlying assets of which are formed by stocks, bonds, and stock indices. In particular, these regulations set out the rules governing the activities of trade organizers, admission of participants to trading, interactions of trade participants and trade organizers, admission of securities to trading, and trading procedure (including specifics on trading in derivative instruments).
Федеральный закон от 22 апреля 1996 г. № 39-ФЗ "О рынке ценных бумаг" (с изменениями от 26 ноября 1998 г., 8 июля 1999 г., 7 августа 2001 г., 28 декабря 2002 г., 29 июня, 28 июля 2004 г., 7 марта 2005 г.)	Federal securities market law of April 22, 1996 (with amendments of November 26, 1998, July 8, 1999, August 7, 2001, December 28, 2002, June 29 and July 28, 2004, March 7, 2005)	The securities market law can be seen as the fundamental law governing the securities market in Russia. In particular, the law defines and describes the activities, interactions, rights, and duties of securities exchanges, professional securities market participants, the federal regulatory authority, and the self-regulatory organizations.
Приказ Федеральной службы по финансовым рынкам от 16 марта 2005 г. № 05-3/пз-н "Об утверждении порядка лицензирования видов профессиональной деятельности на рынке ценных бумаг"	Order of the FSFM of March 16, 2005, to approve the licensing procedure of types of professional activities on the securities market	The rules of the licensing procedure approved by the order regulate all relations, rising between the FSFM and the legal entities applying for licenses of various types of professional activities on the securities market. Section 1 lists the types of professional activities that the potential participants can undertake and the necessary licenses for each type of professional activity. Section 2 gives a detailed list of necessary documents to be submitted to the FSFM for issuance of licenses. Section 3 describes the conditions and requirements for holding the licenses issued by the FSFM. Section 4 describes the procedures for application processing, license issuance and denial of license issuance. Section 5 explains the conditions for suspension or cancellation of licenses.
Постановление Правительства РФ от 24 февраля 1994 г. № 152 "Об утверждении Положения о порядке лицензирования деятельности товарных бирж на территории Российской Федерации, Положения о государственном комиссаре на товарной бирже" (с изменениями от 12 марта 1996 г., 3 октября 2002 г., 21 марта 2005 г.)	Decree of the Government of the Russian Federation of February 24, 1994, to ratify the regulations of the licensing of activity of commodity exchanges on the territory of the Russian Federation, statute of the governmental commissioner on the commodity exchange (with amendments of March 12, 1996, October 3, 2002, March 21, 2005)	The regulations ratified by the decree determine the conditions and order of issuance, suspension and annulment of the organisation of commodity exchange license. The statute defines the rights and obligations of the governmental commissioner, who supervises the commodity exchange and the exchange intermediaries in accordance to the legislation of the Russian Federation.
Постановление Правительства РФ от 9 октября 1995 г. № 981 "Об утверждении Положения о лицензировании деятельности биржевых посредников и биржевых брокеров, совершающих товарные фьючерсные и опционные сделки в биржевой торговле" (с изменениями от 3 октября 2002 г., 21 марта 2005 г.)	Decree of the Government of the Russian Federation of October 9, 1995, to ratify the regulations of licensing of activity of exchange intermediaries and exchange brokers, completing exchange transactions in commodity futures and options contracts (with amendments from October 3, 2002, March 21, 2005)	The regulations ratified by the decree determine the conditions and order of issuance, suspension and annulment of licenses by the Commission for Commodity Exchanges for completing commodity futures and options transactions by exchange intermediaries and exchange brokers.

Russian derivatives markets are also regulated by general laws on Russian financial markets such as the Russian Federation Civil Code, Russian Federation Mortgage Law, and the Russian Federation Law about the Central Bank of Russia.

Source: MICEX. Table created by ZEW.