

**Payment, clearing and
settlement systems in
Russia**

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List of abbreviations

AP	Associated Participant
ARB	Association of Russian Banks
ATM	Automated Teller Machine
BESP System	Banking Electronic Speedy Payment System
BIC	Bank Identification Code
BoR	Bank of Russia
BRPS	Bank of Russia Payment System
CC	Clearing Chamber
CCP	Central Counterparty
CIS	Commonwealth of Independent States
CJSC	Closed Joint Stock Company
CPSS	Committee on Payment and Settlement Systems
DCC	Depository Clearing Company
DP	Direct Participant
DVP	Delivery versus Payment
EPM	Electronic Payment Message
EurAsEC	Eurasian Economic Community
FFMS	Federal Financial Markets Service
FSUE	Federal State Unitary Enterprise
GKO	Government Short-term Zero-coupon Bond
GSM	Government Securities Market
IOSCO	International Organization of Securities Commissions
ISO	International Organization for Standardization
KOI	Collective Data Processing System
KTsOI	Easy-access Collective Data Processing Centres
MER	System for Interregional Electronic Payments
MICEX	Moscow Interbank Currency Exchange
MoF	Ministry of Finance of the Russian Federation
MSE	Moscow Stock Exchange
NAMEX	National Mercantile Exchange
NCI	Non-bank credit institution
NP	Non-for-profit Partnership
NSD	National Settlement Depository
OFZ	Federal-loan Bond

Russia

OJSC	Open Joint Stock Company
OTC	Over-the-counter
POS	Point of Sale
RTGS	Real-time Gross Settlement
RTS	Russian Trading System
SC	Settlement Chamber
SDC	Settlement Depository Company
SE	Stock Exchange
SP	Special Participant
SPBEX	St Petersburg Exchange
SPCEX	St Petersburg Currency Exchange
SPRS	Single Postal Remittances System
SVK	Customer Interaction Interface
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TSER	Electronic Settlement Transport System
VER	System for Intraregional Electronic Payments

Introduction

Russia's financial market infrastructures (FMIs) have evolved rapidly in response to economic growth, technical innovation and regulatory initiatives. These changes will increase the Russian payment system's efficiency and bring it into line with international standards.

The Russian payment system comprises the Bank of Russia payment system (BRPS) and other payment systems operated mainly by credit institutions.

The BRPS comprises the system for intraregional electronic payments (VER), the system for interregional electronic payments (MER), the Banking Electronic Speedy Payment system (BESP system), and a payment system based on letters of advice.

The most significant recent development was the creation of the BESP payment system within the BRPS framework. Introduced at the end of 2007, the BESP system provides nationwide settlement on a real-time gross settlement (RTGS) basis for both urgent interbank payments and the non-urgent payments of non-bank institutions.

The banking system plays a key role in supporting the national payment system as it provides the main channel for payment transactions in the economy. Credit institutions provide clients with various payment instruments and services by executing payments through the BRPS and through correspondent accounts opened with each other or in their own interbranch networks.

Non-cash payment instruments include credit transfers, direct debits, cheques, payment cards and e-money. The main payment instruments are credit transfers, by which the bulk of payments are executed.

A significant trend is the increasing use of payment cards. The national payment card market consists mainly of international card payment schemes, with some Russian participants. The volume of transactions has grown strongly in recent years, while average transaction values have remained modest. Internet banking and mobile payment services are also being widely implemented.

The dynamically developing payments market has brought new players onto the stage in recent years. Besides credit institutions and the Russian Post, which have traditionally provided payment services, non-bank providers have entered the market as agents, supplying new infrastructure services and offering innovative payment instruments to consumers.

Two main groups provide trade, clearing and settlement services on the Russian securities market: the Moscow Interbank Currency Exchange Group (MICEX Group) and the Russian Trading System Group (RTS Group). The infrastructure is being improved to provide faster and more secure post-trade services. The MICEX Group has been reorganised to develop an integrated infrastructure. Moreover, a National Settlement Depository (NSD) that combines settlement and depository activities was created.

The BRPS aims at effective integration with other national financial market infrastructures to promote their efficiency and settlement security.

The development of the country's payment system requires a sound legal framework, which is a key priority for the Bank of Russia. A new federal law "On the national payment system", drafted by the Ministry of Finance of the Russian Federation and the Bank of Russia, was adopted in June 2011. The act regulates different types of payment operators, payment systems and infrastructures, and mandates the Bank of Russia to supervise and oversee the national payment systems.

1. Institutional aspects

1.1 The general institutional framework

1.1.1 The legal framework

The payment system of Russia is governed by the Civil Code of the Russian Federation as well as by various federal laws, in particular those applying to:

- the Central Bank of the Russian Federation (Bank of Russia);
- banks and banking activity; and
- the postal service.

The payment system is also subject to the regulations of the Bank of Russia.

The **Civil Code of the Russian Federation** sets out the key norms that regulate cash and non-cash payments. It establishes that payments between legal entities, as well as between individuals, can be effected with cash or with non-cash instruments. The Civil Code also defines the terms of agreements on bank deposits and bank accounts,¹ which include queuing of funds withdrawals in the event of insufficient funds on the account to satisfy all claims (priority of execution depending on the purpose of payment),² the timing of operations through the account, payment instruments and the responsibilities of payment system participants. The Civil Code stipulates that a credit institution is obliged to transfer funds from a customer's account and to credit funds to a customer's account not later than the day after it receives the relevant payment document (T+1).³ A shorter term can be defined individually in the contract between credit institution and account holder.

The **federal law "On the Central Bank of the Russian Federation (Bank of Russia)"** establishes the objectives, functions and authority of the Bank of Russia (BoR) with respect to payment systems and funds transfers related to the settlement of trades on Russian securities markets. The law prescribes that the total time for execution of non-cash payments must not exceed two business days for intraregional payments,⁴ and five business days for interregional payments.

The **federal law "On banks and banking activity"** regulates the activities of credit institutions in Russia, determines their legal status, establishes the rules for their registration,

¹ The *bank account agreement* governs the account relationship between a bank and an account holder. According to a bank account agreement the bank accepts funds on holders' accounts and executes account operations on their instructions.

The *bank deposit agreement* is a legal relationship concerning the placement and repayment of funds. According to a bank deposit agreement, the bank accepts a deposit and is obliged to return it on the due date (or on demand) and to pay interest as specified in the agreement. At the same time, the rules of a bank account agreement generally apply to the relations between bank and depositor concerning the account on which the deposit was placed.

² Payments of public importance take priority (eg payments of alimony claims, salaries etc).

³ The *payment document* is a specific term used in Russian legislation to refer to a payment instruction instrument used to effect payment transactions. A payment document can be presented to a payment services provider on paper as well as electronically (see Section 2.2). In this report, the term "payment document" is used exclusively with this meaning.

⁴ The Russian Federation comprises national republics, territories, regions, cities of federal importance, an autonomous region, and autonomous areas. All these entities are referred to as "regions" in this report. In certain cases, a "region" may include several constituent entities of the Russian Federation.

and defines the list of operations that only credit institutions licensed by the BoR can carry out, as well as the list of other activities that credit institutions may carry out.

In 2010, the **federal law “On payment agents’ activity concerning reception of payments from individuals”** and related legislative amendments came into effect. This federal law provides the legal basis for the development of agent schemes for receiving payments from individuals through payment agents and bank payment agents (see Section 1.1.2.3).

Rules and procedures for operations using cash and non-cash means of payment in payment systems are defined by the regulations of the BoR, while agreements between participants and the payment system operators govern the responsibilities of the payment system participants.

To create a comprehensive, up-to-date legal basis for the national payment system, the Ministry of Finance (MoF) and the BoR have jointly drafted the **federal law “On the national payment system”**. The main objective is to establish a legal framework for the functioning of the national payment system based on common principles. The law was signed by the President of the Russian Federation and officially published on 30 June 2011. It will come into force after 90 days (except for certain provisions for which other terms are established).

The key provisions of the law include:

- Definition of e-money and procedures for its transfer, as well as requirements for credit institutions (e-money operators) concerning e-money transfers.
- Establishment of procedures for interaction between mobile phone companies and e-money operators.
- Establishment of procedures for registration of payment system operators for supervision purposes.
- Definition of important (systemically important and important to the public) payment systems and additional requirements for such systems.
- Establishment of requirements for the payment system infrastructure.
- Establishment of requirements for risk management systems within payment systems.
- Establishment of procedures for supervision of the national payment system, authorising the BoR to monitor payment system and infrastructure operators.
- Establishment of procedures for the oversight of the national payment system with a focus on the important payment systems.

The laws, regulations and contractual provisions that constitute the legal framework for the BRPS set out the rights and obligations of each party involved in transferring funds via the BRPS. The procedure for effecting payments through the BRPS is defined by the BoR’s regulations on the basis of the Civil Code and federal laws. The BoR’s regulations define such terms as irrevocability and finality of payment,⁵ and provide for the use of a collateral mechanism in providing secured loans and the crediting of an account for carrying out payments in the BRPS. The BoR’s regulations also determine payment instruments and their formats, the procedures in the BEPS system, the procedure for processing cycles and continuous processing of payments in the Moscow Region, the rules for the exchange of electronic messages between the BoR and its customers and the procedure for effecting electronic payments and settlements using letters of advice (see also Section 3.1.3).

⁵ For a definition of irrevocability and finality see Sections 3.1.1.4 and 3.1.2.5.

The BoR's regulations provide the detailed part of the legal framework for payments and are compulsory for all payment systems. The relationships between the BoR and credit institutions and other customers that relate to settlement operations through the BRPS are regulated by standards, correspondent account contracts and electronic message exchange agreements.

The contracts between the BoR and its customers comply with civil legislation and should not in principle stand at variance with federal standards and subordinate legislation. However, according to the principle of freedom of contract established in the Civil Code, contracts may include provisions that are not stipulated by legislation.

1.1.2 Providers of payment services

1.1.2.1 Credit institutions

According to the Civil Code of the Russian Federation, non-cash payments must be effected through credit institutions.

A credit institution is a legal entity with the right to carry out banking operations as a profit-making entity as defined in the federal law "On banks and banking activity".

The activity of credit institutions is considered legal only if they have a licence granted by the BoR. The licence specifies the banking operations that the credit institution can execute. Credit institutions are not allowed to engage in industrial production, commercial trade or insurance activities.

There are two types of credit institutions: banks and non-bank credit institutions (NCIs). The key distinguishing feature of banks is that only they are allowed to carry out the following banking operations: to accept deposits (sight and time) from individuals and legal entities; to use deposited funds in their own name and for their own account; and to open and maintain bank accounts for individuals and legal entities. NCIs can execute certain banking operations, as may be determined by the BoR. The majority of NCIs in Russia specialise in effecting payments and act as settlement banks in securities markets. These NCIs are defined by the BoR as "settlement NCIs".⁶ Other NCIs specialise in carrying out certain kinds of deposit and credit operation and do not have the right to act as settlement banks.

According to the federal law "On banks and banking activity", all banking operations and deals are effected in rubles. A bank can only carry out banking business in a foreign currency if appropriately licenced to do so by the BoR.

At the end of 2009 there were 1,058 credit institutions in Russia, including 1,007 banks and 51 NCIs, of which 47 were settlement NCIs. The credit institutions had 3,183 branches and 37,547 sub-branches. The registered authorised capital of operating credit institutions was 1,244.4 billion rubles.⁷

At the end of 2009 there were 226 credit institutions in Russia with foreign shareholdings. Of these, 82 had 100% of their authorised capital held by non-residents, and 26 were 50–99% held by non-residents.

Banks

Banks are licenced to conduct banking operations by the BoR. The federal law "On banks and banking activity" stipulates that the following activities require a licence from the BoR:

⁶ The term is established in the BoR's regulations.

⁷ Exchange rate RUB/USD at end-2009: 30.2442.

- deposit-taking from individuals and other legal entities;
- the use of deposited funds in the institution's own name or for its own account;
- the opening and maintenance of bank accounts for individuals and other legal entities;
- making payments across their accounts to the order of individuals and legal entities, including correspondent banks;
- collecting funds, bills of exchange, payment documents and providing cash services for individuals and legal entities;
- buying and selling foreign currency in cash or non-cash;
- accepting and placing deposits in precious metals;
- issuing bank guarantees; and
- transferring funds to the order of individuals who are not in account with the bank concerned.

In addition, banks may manage assets under trust relationships with individuals and other legal entities, as well as conduct transactions in precious metals and precious stones, rent out special premises and safes for storing documents and valuables to individuals and other legal entities, engage in leasing operations, and provide consulting and information services etc. These activities do not require a licence from the BoR.

Banks can make payments through the BRPS via correspondent accounts; through accounts with settlement NCIs; and through accounts within their own interbranch network. The opening of correspondent accounts and execution of payment operations across such accounts are regulated by provisions within legislation and the BoR's regulations, and by bilateral agreements between credit institutions. The procedure for conducting interbranch payments is independently set out in the internal rules of a credit institution and subject to compliance with BoR requirements.

Settlement NCIs

Settlement NCIs are authorised by the BoR to carry out the following banking operations in domestic and foreign currencies:

- opening and maintaining bank accounts for legal entities;
- effecting payments for legal entities, including correspondent banks;
- collecting funds, bills of exchange, payment documents and providing cash servicing for legal entities;
- buying and selling foreign currency in non-cash form; and
- transferring funds for individuals without bank accounts at the institution concerned.

Given the settlement NCIs' focus on maintaining customers' accounts and effecting payments, the BoR has restricted them (unlike banks) in the use of their own funds and those of customers to make investments on their own behalf and for their own account. However, settlement NCIs are authorised to provide credit to settlement participants for completion of settlement using funds set up by settlement participants for this purpose.⁸

⁸ The BoR requires settlement NCIs to establish a liquidity maintenance fund based on contributions from settlement participants. The fund provides credit for the completion of settlements on terms of up to three days. The use of money from the fund is regulated by the agreement "On establishing of liquidity maintenance

1.1.2.2 Russian Post

The Russian Post, a federal state unitary enterprise, operates the federal postal service. It has a wide network of post offices.

Together with postal services, the Russian Post offers a wide range of financial and telecommunication services. Postal remittances are one of the most important of these financial services.

Prior to 1997, postal remittances were executed by mail or cable transfer. Electronic remittances, via the internet and other channels, have been available since 1997, with data security assured by encryption and the use of electronic signatures.

In 2002, the Single Postal Remittances System (SPRS) was launched by a federal programme that aimed to promote the development of electronic remittances. At present, almost all postal remittances are processed by the SPRS,⁹ which covers more than 40,000 postal service branches and includes 16,000 network terminals and 1,600 intermediate centre terminals.¹⁰ Electronic remittances can be completed in no more than 72 hours, from payment execution to delivery. The service is used for a wide variety of transactions, including loan repayments and payments for goods and services.

The Russian Post plans to introduce addressless transmission of funds so that remittances can be received in any post office connected to the service. Another new product will be a so-called urgent remittance with delivery guaranteed at any destination post office within one hour.

1.1.2.3 Payment agents and bank payment agents¹¹

Payment agents and bank payment agents have become increasingly prominent within the retail payment services market in recent years. Such agents allow individuals to pay for goods and services quickly via payment terminals¹² and ATMs without the need to visit a bank or pay a supplier directly in cash.

A customer settles a bill for goods and services by paying over cash or using a payment card at any agent's receiving point – which can be either a self-service payment terminal or the branch of a payment agent, such as a shop, kiosk or office, where a cashier can accept a cash payment and payment instruction for the bill and issue a receipt. The funds are then transferred to the payment agent's account with a credit institution. Settlement is effected either through accounts within the same credit institution or via correspondent accounts held with the BoR or other credit institutions.

funds" which stipulates that settlement participants are jointly responsible to the settlement NCI for the repayment of such credit.

⁹ Together with the Russian Post, banks and remittance systems (Western Union, MoneyGram etc) also have licenses to offer remittance services through the SPRS.

¹⁰ A *network terminal* is a secure postal terminal providing receipt and delivery of remittances, while an *intermediate centre terminal* converts paper documents into electronic documents and vice versa.

¹¹ A *payment agent* is a legal entity or individual authorised to accept payments from customers on behalf of suppliers of goods and services on the basis of agreements concluded with the suppliers. A *bank payment agent* is a legal entity or individual who receives payments from individuals and carries out certain other activities on behalf of a credit institution. A bank payment agent is not a branch of a credit institution.

¹² A payment terminal of a (bank) payment agent is not an ATM but a self-service device that accepts cash payments but cannot be used to withdraw cash. Payment terminals of bank payment agents can accept payment cards.

At present, the infrastructure of payment agents and bank payment agents covers most regions of the Russian Federation. Their payment terminals are widespread at retail points of sales, around subway stations etc.

Payment agents and bank payment agents receive payments from individuals for goods and services, as well as payments addressed to state bodies, local self-governing bodies and non-profit institutions controlled by the government. Individuals can also use bank payment agents to pay money into their bank accounts, access payment card services and send instructions to credit institutions to make payments from one bank account to another.

When setting the terms of agreements, payment agents and bank payment agents are subject to the same requirements as those that govern payments, the use of bank accounts and cash registers, fees and legal liability.

1.2 The role of the Bank of Russia

The federal law “On the Central Bank of the Russian Federation (Bank of Russia)” makes the BoR responsible for the effective and smooth functioning of the payment system. To this end, the BoR establishes the rules for effecting payments in the Russian Federation; reserves the exclusive right to issue cash and organise its circulation; and defines the procedure for effecting payments with international organisations and foreign states as well as with legal entities and individuals. The BoR is the lender of last resort to credit institutions and provides them with refinancing facilities, and it carries out payments through its payment system.

The BoR system comprises its Head Office, regional branches, other branches known as “settlement cash centres”¹³ and such other organisations as are necessary to carry out its activities. These organisations are located in all regions of the Russian Federation to ensure the coordination of the BoR’s activities. They play a vital role in effectively organising and regulating payments and settlements across the country’s nine time zones.

In the national republics of the Russian Federation, the BoR’s regional branches are called “national banks”, and in all other regions they are called “main branches”. The BoR’s regional branches do not have a separate legal personality or make decisions of a regulatory nature.

At the end of 2009, there were 79 regional branches, 78 head settlement cash centres and 552 settlement cash centres in Russia.

1.2.1 Organisation of cash circulation

The official currency unit of the Russian Federation is the ruble. One ruble comprises 100 kopecks.

The BoR has the sole authority to issue cash (banknotes and coins), approve its denominations and design, organise its circulation and withdraw it from circulation. Its banknotes and coins are the Russian Federation’s sole legal tender. The BoR implements anti-counterfeiting measures, and develops new preventive features for banknotes and coins.

In accordance with legislation, and to discourage the excessive use of cash, the BoR has set a ceiling on the size of cash payments between legal entities, between a legal entity and a

¹³ A *settlement cash centre* is the organisational unit of the BoR’s payment network that supports the opening of bank accounts for customers, and compiles and transmits electronic messages to the BoR’s authorised branches. It can also, as required, collect paper-based payment documents from customers and convert them into electronic form, provide cash services to customers and execute payments using letters of advice. Each national bank and main branch has settlement cash centres, one of which acts as the head settlement cash centre.

sole proprietor, and between sole proprietors. No cash payment under a single contract between such parties may exceed 100,000 rubles. There are no such restrictions for individuals.

To support cash circulation in the Russian Federation, the BoR:

- plans and organises the production, transportation and storage of banknotes and coins and the creation of the associated reserve funds;
- sets rules on the safekeeping, transportation and collection of cash for credit institutions;
- sets the criteria for accepting banknotes and coins, and procedures for destroying banknotes and coins, as well as for exchanging damaged banknotes and coins; and
- sets the rules for conducting cash operations.

The BoR monitors cash money turnover and changes in its structure, analyses the breakdown of banknote and coin denominations in circulation with regard to the needs of the economy, tracks the lifespan of different denominations of banknotes and coins, calculates banknote requirements by denomination and region, and plans the manufacture of banknotes and coins.

At the end of 2009, the following banknotes and coins of the BoR's 1997 design were in circulation: seven denominations of banknotes (five, 10, 50, 100, 500, 1,000 and 5,000 rubles) and eight denominations of coins (one, five, 10 and 50 kopecks and one, two, five and 10 rubles).

1.2.2 Organisation of non-cash payments

According to the federal law "On the Central Bank of the Russian Federation (Bank of Russia)", the BoR coordinates and regulates the organisation of payments and funds transfers related to settlements on the Russian securities market.¹⁴ The BoR establishes rules, instruments, timing and standards for effecting non-cash payments and monitors the payment activities of credit institutions on the basis of statistical reports.

Non-cash payments in the Russian Federation are effected in both national currency (rubles) and foreign currency (where permitted by federal law).

The BoR provides payment services to credit institutions and other legal entities as specified in the law.

The above law also empowers the BoR to carry out banking operations for state bodies and local self-governing bodies and their organisations, and state extra-budgetary funds,¹⁵ military units, military servicemen, employees of the BoR and also other persons as specified by federal law. In addition, the BoR may provide services to customers that are not credit institutions in regions which lack credit institutions.

All credit institutions located in the Russian Federation and licenced by the BoR must open a correspondent account with its local branch of the BoR. It may also open a correspondent sub-account for its branch.

¹⁴ In general the BoR regulates the cash leg of settlements on the securities market. The securities leg is regulated by the Federal Financial Markets Service (FFMS).

¹⁵ The Pension Fund, the Social Insurance Fund, the Federal and Territorial Obligatory Medical Insurance Funds, Social Support Fund and the regional and local governments' extra-budgetary funds.

Other customers also have bank accounts with local branches of the BoR, which can be used for making payments (for more details see Section 3).

Each credit institution and branch of the BoR has a bank identification code (BIC), which identifies them as participants in the BRPS; the BIC must be used when completing payment documents and effecting transactions.

At the end of 2009, some 1,058 credit institutions, 2,253 branches of credit institutions and about 15,000 non-credit institutions were in account with the BoR.

1.2.3 Standing liquidity facility

For the purpose of maintaining the money supply at a certain level, credit institutions must maintain reserve accounts with the BoR. Credit institutions that meet BoR criteria can use the required reserves averaging framework, which allows them to use required reserves as short-term liquidity, provided that the average balance of reserves during averaging period¹⁶ is maintained at the required level. At present, the following ratios apply to average required reserves: 0.6 for all credit institutions excluding settlement NCI and 1.0 for settlement NCI. Thus, credit institutions may use from 60% to 100% of the total amount of required reserves.

The BoR also provides credit institutions with secured short-term liquidity for payment purposes by providing intraday and overnight credit on their correspondent accounts (sub-accounts) with the BoR. Credit institutions may redistribute their funds between different payment systems of the BRPS.

Other forms of credit provided by the BoR to credit institutions include lombard loans, loans secured by non-marketable assets and guarantees, unsecured loans¹⁷ etc, as well as liquidity supplied through repo and currency swap operations.

1.2.4 Operator

The BoR is the owner and operator of its own payment system. Software developed by the BoR and its infrastructure are designed to meet scalability and business continuity requirements.

The BoR monitors and controls its payment system on a day-to-day basis and plans for business continuity at all levels.

As the owner, regulator, manager, and supervisor of the payment system, the BoR takes appropriate steps to develop the system in line with the needs of the economy.

1.2.5 Oversight

The BoR defines the key areas of its payment system oversight activities in accordance with international standards and best international and national practices.

The BoR's oversight activity covers all the institutional and infrastructural elements of the payment system, including large-value payment systems, retail payment systems, payment infrastructure and payment instruments. The main focus is on systemically important payment systems.

Oversight activities are coordinated through meetings and contacts with the representatives of Russian and international payment systems. A preliminary report on these payment

¹⁶ The averaging period runs from the 10th day of each month to the 10th day of the following month (inclusive).

¹⁷ In extraordinary circumstances. Since the end of November 2010, no unsecured lending has been outstanding to credit institutions.

systems,¹⁸ conducted in 2010, assessed their compliance with the international standards developed by the CPSS and the International Organization of Securities Commissions (IOSCO).

The major priority is to create a legal framework which authorises the BoR to oversee all institutional and infrastructural elements of the Russian payment system. This project is part of a wider move to improve national payment system legislation. Such legislation would considerably extend the BoR's regulatory scope to include service operators with payments activities.

Oversight of the Bank of Russia Payment System

The law "On the Central Bank of the Russian Federation (Bank of Russia)" provides for oversight of the BRPS. This is implemented at two levels, reflecting the country's federal structure:

- at the federal level by the BoR department responsible for BRPS oversight; and
- at the regional level by regional branches of the BoR.

This two-level oversight reflects the BRPS's interconnected centralised and regional subsystems. Participants hold accounts in the appropriate branches of the BoR's network.

The BoR carries out its federal and regional BRPS oversight activities as follows:

- At the federal level the BoR oversees its payment system as a whole, setting the objectives and scope of oversight, as well as the methodology, procedures and tools. It has also implemented a uniform oversight methodology for the payment system's regional subsystems. The oversight of the BESP system is also conducted at a federal level.
- At the regional level the BoR implements the oversight methodology for the regional subsystem of its payment system.

BRPS oversight is based on data from the BoR regional branches and the various BRPS subsystems.

To improve the quality and timeliness of BRPS-related information, the BoR is building a centralised information analysis system for its payment system that will help identify payment system risks, assess the behaviour of individual participants, groups of participants and the system as a whole, and improve the response to critical situations.

1.2.6 Catalyst role of the Bank of Russia

The BoR acts as a catalyst, initiating and coordinating the process of making adjustments to the national payment system rules and procedures that enhance its stability and efficiency. The BoR also chairs or coordinates consultations and working groups¹⁹ that advise on processes and standards for the national payment system. The BoR promotes the wider use of electronic documentation in the payments area through a special working group that includes credit institutions.

¹⁸ The BoR does not yet have the legally established authority to oversee and regulate payment systems (including the collection of necessary information from these systems). Current oversight activity is therefore carried out with respect to payment systems that are of substantial importance to the Russian economy and that have voluntarily agreed to cooperate with the BoR.

¹⁹ Typically such working groups include representatives of other regulatory bodies (MoF, FFMS), banking associations, organisations of financial market infrastructure, credit institutions etc.

The BoR pays close attention to the adoption of international standards in the domestic payment system. At the initiative of the BoR, a National Committee for Financial Services Standardization has been formed within the Federal Agency on Technical Regulating and Metrology with a view to participation in the International Organization for Standardization (ISO) Technical Committee 68 Financial Services. To conform as far as possible with international payment system standards, it is planned, in close cooperation with Russian financial market representatives, to develop a national standard for financial messages based on the ISO 20022 methodology.

The BoR also promotes the development of the retail payments market by monitoring, analysing and publishing reports and statistics. It also interacts with public authorities and the banking community. Moreover the BoR cooperates with the private sector, in particular with non-bank operators of retail payment services in order to improve their efficiency and security.

The BoR cooperates in the field of payment services development with other central banks, including those of Commonwealth of Independent States (CIS) and the Eurasian Economic Community (EurAsEC) countries as well as with international financial organisations.

1.3 The role of other private and public sector bodies

1.3.1 Federal Treasury

The Federal Treasury of the Ministry of Finance of the Russian Federation (Federal Treasury) was created in 1992. It is legally mandated to ensure that the federal budget is implemented and to supervise operations with federal budget funds.

The BoR is legally obliged to maintain, free of charge, the accounts of the Federal Treasury and its regional offices (Federal Treasury offices). The value of transactions effected by the Federal Treasury offices makes up for a substantial part of the total value of the BoR's payments.

In 2009 the Federal Treasury offices accounted for about 88% of the volume of payments effected by the BoR across the accounts of its non-credit institution customers, and for 19% of the volume of payments effected by the BoR for all its customers. The value of payments conducted by the Federal Treasury offices through the BRPS in 2009 totalled 80% of the value of payments effected by the BoR across the accounts of its non-credit institution customers, and 13% of the value of payments effected by the BoR across the accounts of all its customers.

In 2009 the Federal Treasury and its 79 regional offices joined the BESP system (see Section 3.1) as associated participants, and they have actively used the BESP system since December 2009. As a result, the time taken to make and settle budget fund transactions between the Federal Treasury and its branches has been reduced to one minute.²⁰

²⁰ Before the Federal Treasury joined the BESP system, payments took 2–5 days to settle depending on whether they were interregional or intraregional.

1.3.2 Russian banking associations

1.3.2.1 Association of Regional Banks (Association Russia)

Association Russia was created in 1990 and became the first banking association in the country, initially comprising 44 banks. Now, more than 450 credit and other institutions in different regions of Russia are members of Association Russia.

The Association aims to develop and strengthen the banking sector by improving banks' capitalisation, creating economic and legal conditions to attract investment resources to the Russian banking system, ensuring fair competition and enhancing business efficiency.

Its most important function is to coordinate interests between regional banks, federal and regional administrative bodies, and the BoR, with a view to improving Russian banking and payment systems and services.

To these ends, the Association holds regular meetings with executives of the BoR and its regional branches, and organises advisory and coordinating councils as well as national and international forums and conferences on issues related to banking and payment activities.

At present, the Committee on Payment and Settlement System Development operates within Association Russia. It analyses Russian legislation and international practice concerning payment and settlement systems, and proposes improvements to payment system regulations. It also contributes to the development and implementation of international payment standards.

1.3.2.2 Association of Russian Banks (ARB)

The ARB was created in 1993. It is a private not-for-profit organisation that includes credit institutions and other financial institutions whose activities are related to the functioning of the Russian financial system.

The most important objectives of the ARB are:

- participation in the development of banking business in Russia;
- representation and assistance in protecting credit institutions' interests in legislative and executive bodies, the BoR, judicial, law enforcement, tax and other authorities;
- assistance to credit institutions in consolidating their resources for carrying out large-scale economic programmes;
- provision of organisational, information, analytical, methodical, legal and other assistance to credit institutions; and
- promotion of cooperation between Russian credit institutions and foreign banks, their unions and associations, and international financial organisations.

ARB includes about 80% of Russian banks that collectively hold more than 92% of the total banking capital of operating credit institutions and more than 93% of the total assets of the country's banking system. At present, ARB has 714 members, including 546 credit institutions.

ARB cooperates with the BoR on important issues of banking system development, as well as with regional banking associations and unions, and with the Russian regional banking community.

In 1997, ARB joined the EU's Banking Federation, which includes about 3,000 European banks.

ARB contributes to the development of the national payment system. The Committee on Payment Systems and Organisation of Settlements operates within the structure of ARB. Meetings held by the Committee with representatives of the BoR and credit institutions focus

on the development of draft regulation for Russian payment system activities, among other topics.

1.3.3 Federal Financial Markets Service (FFMS)

FFMS is the federal executive body that formulates legislation on the financial markets, and controls and supervises financial markets (except for banking and audit activities). FFMS reports directly to the Government of the Russian Federation.

FFMS regulates securities markets by:

- establishing mandatory requirements for the activities of issuers and professional securities market participants, and for the standards that govern these activities;
- providing for the registration of securities issues and issue prospectuses, as well as monitoring and checking that issuers are in compliance with the terms and conditions of issues;
- licensing of the activities of professional securities market participants;
- establishing owners' rights protection and monitoring the observance of these rights by issuers and professional securities market participants; and
- preventing illegal or unlicensed activities in the securities market.

FFMS is a member of IOSCO.

1.3.4 Stock exchanges

At present, there are four trading organisers in Russia (the Moscow Interbank Currency Exchange (MICEX), the St Petersburg Currency Exchange (SPCEX), the Russian Trading System Stock Exchange Non-for-Profit Partnership (NP RTS), and the Moscow Stock Exchange (MSE)), and four stock exchanges, two of which are located in Moscow (the MICEX Stock Exchange (MICEX SE) and the Russian Trading System Stock Exchange (RTS)), and two in St Petersburg (the St Petersburg Currency Exchange (SPCEX) and St Petersburg Exchange (SPBEX)).

According to the federal law "On the securities market", stock exchanges are market institutions that organise securities trading. Stock exchanges cannot combine securities trading with other kinds of professional activities in the securities market, with the exception of clearing activities (for a description of clearing and settlement services see Chapter 4).

Stock exchanges may be set up as not-for-profit partnerships or joint stock companies, and may only organise trading between their members. Other securities market participants can conduct their activities only through the intermediation of stock exchange members.

Any professional securities market participant that conducts activities specified in the federal law "On the securities market" may become a stock exchange member. The procedures for joining and leaving the stock exchange as well as for exclusion from the stock exchange are determined by the stock exchange independently, based on its internal regulations.

A wide range of Russian securities (government as well as corporate securities) and derivatives is traded on stock exchanges; only a minority is traded over the counter.

In 2009, the value of securities and derivatives trades executed on the major Russian trading platforms (MICEX, MICEX SE, RTS) amounted to more than 90 trillion rubles. The value of foreign currency trading on the organised foreign exchange market (MICEX Foreign Currency Exchange Market) was more than 96 trillion rubles.

1.3.5 Depositories

The federal law “On the securities market” defines depository activity as the provision of custody services for securities certificates and/or the recording and transferring of rights over securities. A depository is a professional securities market participant that performs depository activity under the licence of the FFMS. Only a legal entity can be a depository.

The main aim of depositories is to ensure the rights of investors and shareholders for securities in the Russian Federation. This is achieved primarily by the immobilisation of securities certificates, in order to facilitate their circulation and eliminate the risks involved in their physical transfer from seller to buyer.

Depositories carry out the following main functions:

- accounting and custody of securities (securities certificates);
- recording information on the ownership rights to securities;
- ensuring the delivery of securities held in custody, from buyer to seller, by book entry across securities accounts;
- recording information on the obligations encumbered on securities, as accounted at the depository;
- physically issuing to the owners certificates of securities held in custody when they withdraw them;
- collection, state registration and storage of information received from the issuers of securities;
- receiving the securities income from the issuers, distribution and transfer to customers’ cash accounts;
- redemption of securities; and
- cooperation with clearing and settlement systems to settle securities transactions.

In the stock market, depository services are provided by settlement depositories. Settlement depositories are the depositories that settle securities transactions executed at stock exchanges and/or other organisers of trading in the securities market.

At present, the Russian stock market (for certain securities segments) has developed a securities custody system consisting of two settlement depositories, namely, the National Settlement Depository (NSD), that mainly effects securities settlements at the MICEX SE, and the Depository Clearing Company (DCC), that mainly effects securities settlements at the RTS Stock Exchange. Other stock exchanges, which handle considerably lower trade volumes, cooperate with other settlement depositories (for details see also Chapter 4).

2. Payment media used by non-banks

2.1 Cash payments

The total amount of cash in circulation²¹ at the end of 2009 was 4,629.7 billion rubles. Cash is one of the major payment means used for retail payments in the Russian Federation.

²¹ Including cash held in vaults at the BoR and at credit institutions.

As a means of payment, cash is used in payments for retail sales of goods and services, as well as for salary payments, pensions, allowances and grants.

2.2 Non-cash payments

Non-cash payments in rubles between legal entities or involving individuals, must be effected in a legally permitted form.

Clients of credit institutions may choose any type of payment instrument or payment document. These are specified in agreements between credit institutions and their clients.

Non-cash payments are conducted through credit institutions (or their branches) and/or the BoR across accounts opened in accordance with the agreement on bank accounts (or the agreement on correspondent bank account/sub-account), unless the law or the payment instrument used stipulate otherwise.

Individuals may carry out non-cash payments across bank accounts or without opening an account.

The following payment documents are used to effect non-cash payments: payment orders, letters of credit, payment claims, collection orders and cheques. Funds transfers on behalf of individuals without a bank account are conducted through credit institutions by means of payment orders.

Payment instruments used in Russia include credit transfers, direct debits, cheques, payment cards and e-money.

2.2.1 Credit transfers

Paper-based credit transfers are initiated at a bank when a customer (or his representative) presents a payment document in paper form. Funds are transferred to the payee's bank by post or electronically as specified in the payment document. Credit transfer instructions can be executed electronically via special networks, the internet or mobile phone.

In 2009, some 2 billion credit transfers with a total value of 372.4 trillion rubles were effected in Russia. Although on the decline compared with the 2008 level, the share of credit transfers remained significant (at 54.3% of the total volume of transactions with payment instruments and 97.8% of their total value).

In 2009, internet and mobile payments accounted for 31.2% of the total volume of credit transfers through credit institutions and 37.0% of their total value. In recent years, mobile payments by individuals have grown significantly, increasing some 1.9 times in 2009 compared with the previous year. This has increased their share in the total volume of credit transfers effected by individuals from 3.7% to 9.7%. At the same time, their share in the total value of credit transfers effected by individuals remained insignificant, at 0.5% in 2009.

2.2.1.1 Payments by payment order²²

A payment order is the most widely used payment document in Russia. It is used to effect credit transfers. A payment order is an account holder's instruction to the bank to transfer a specified amount to the account of a payee opened with the same or another bank. Payment orders can be used for both one-time and recurring payments (standing orders). In the latter

²² In this text, the term *payment order* is exclusively used to refer to a specific kind of payment document used in Russia for effecting of credit transfer transactions.

case, the payer instructs the bank to repeatedly execute a funds transfer to a given payee, for a set amount on a set series of dates.

In 2009, the share of such payments accounted for 58.1% of the total volume of credit transfers and 99.3% of their total value.

Payment orders can be used to remit funds for:

- delivery of goods, provision of services;
- federal, regional and municipal government budgets, and extra-budgetary funds;
- loan or interest repayments, and deposit placements; and
- other purposes as stipulated by agreement or legislation.

Funds transfers on behalf of individuals without a bank account are conducted by payment order on the basis of a payment document completed by the individual concerned. The form of the document is set by the credit institution involved or by the payee.

2.2.1.2 Payments by letters of credit

A credit institution makes payments under a letter of credit, or authorises another bank to make the payment, when the payee presents the documents specified by the payer within the letter of credit.

Letters of credit account for an insignificant share of non-cash payments, owing to the cumbersome nature of the payment process.²³

2.2.2 Direct debits

Payment claims and collection orders are used to collect payments by debiting the payer's account on the payer's initiative.

In 2009, the share of direct debits in the total volume and value of transactions with payment instruments was 3.6% and 0.6% respectively.

2.2.2.1 Payments by payment claim

A payment claim is a payment document comprising a demand by a creditor (payee) to a debtor (payer) to pay a set amount by debiting the payer's bank account on the basis of an agreement. Payment claims are used when payments are made for goods or services, or as stipulated by an agreement between a payer and a payee. They are usually used for recurring payments. The payee presents a payment claim to the payer directly, without the mediation of banks.

Payments by payment claim may be effected either with or without the payer's specific authorisation. In the latter case, the payer instructs the bank to pay all future payment claims from the specified payee without the need to obtain a separate authorisation for each individual payment document.

Payments by payment claim without specific authorisation are used where agreed by counterparties. The payer's bank must be authorised to withdraw funds from the payer's account without his specific instructions and be provided with appropriate information concerning the payee.

²³ The processing of letters of credit is both document- and labour-intensive.

In the case of payments that do require the payer's specific authorisation, the payer can instruct his bank to debit his account upon receipt of a payment claim either fully or partially, on a recurring or a one-time basis, or to refuse payment on grounds stipulated in the agreement between the counterparties.

2.2.2.2 *Payments by collection order*

A collection order is a payment document under which funds are withdrawn from the payer's account without his approval, prior or otherwise.

Collection orders are used in cases:

- when an indisputable funds withdrawal procedure is established by law (eg for the withdrawal of funds by controlling bodies);²⁴
- when a court ruling has established a right to withdraw funds; or²⁵
- when agreed by counterparties²⁶ and the payer's bank has been authorised to withdraw funds from his account without his specific instructions (ie as in the case of payment claims without specific authorisation, as described above).

2.2.3 **Cheques**

Procedures for the processing of cheques and their terms of use are regulated by the Civil Code as well as by other laws and banking rules.

Cheques issued by credit institutions are used to make non-cash payments.

Credit institutions are free to format cheques as they wish, provided that the cheque contains all the information stipulated by the Civil Code.

Cheques issued by credit institutions may be used for payments on the basis of agreements, concluded between credit institutions and customers, and interbank agreements on cheque payments. Rules for processing cheques are set by the credit institutions themselves. There is no central cheque clearing organisation in Russia.

Traditionally cheques are not widely used in Russia. Their share in the total volume and value of payments does not exceed 1%.

2.2.4 **Payment cards**

The growth in non-cash payment instruments such as payment cards is one of the most important recent trends in the payment system's development.

At the end of 2009, some 700 credit institutions had issued and/or acquired payment cards in the Russian Federation. The number of payment cards issued by credit institutions at the end of 2009 totalled 124 million, up from 54.6 million at the end of 2005.

²⁴ State entities that can use collection orders to make compulsory withdrawals of funds from a payer's account include the Federal Tax Authority, State Pension Fund, State Social Insurance Fund and Federal Customs Authority. To ensure that funds are duly collected, such entities are entitled, in circumstances defined by law, to seize funds in a payer's account(s) by presenting a collection order for the relevant amount outstanding.

²⁵ That is, funds are withdrawn from the account (eg of a debtor) by court order. This is a different procedure to the one involved in the seizure of funds by a state entity.

²⁶ Typically, collection orders are used in this way to collect penalty payments for failure to comply with the terms of a contract.

Both Russian and international card payment schemes are active in the national market. The number of Russian card payment schemes has remained roughly constant over the past decade. At the end of 2009, there were about 60 Russian debit and credit card payment schemes, several times more than the number of international card payment schemes with cards issued and/or accepted in Russia.²⁷ However, international card payment schemes account for the largest share (in terms of the number of payment cards, number and value of payment card transactions etc) in the Russian market.

In 2009, 677.2 million payments by cards issued in Russia were made with a transaction value of 1.3 trillion rubles. This amounted to 18.0% of the total number and 0.3% of the total value of all payment instrument transactions. Card payments are settled according to the rules and settlement procedures of each card scheme. There are currently no regulations on interchange fees in the Russian debit and credit card market.

Debit cards are the most prevalent type of card in the Russian market, followed by credit cards and prepaid cards.²⁸

Debit cards

Debit cards accounted for 91.6% of total cards issued at the end of 2009. Their dominant share is primarily due to the widespread use of payroll card programmes.²⁹

Credit cards

The number of credit cards issued has started to grow rapidly as a result of banks' consumer lending programmes. At the end of 2009, credit cards accounted for 6.8% of the total number of cards issued.

Prepaid cards

The share of prepaid cards in the Russian payment card market remains insignificant, at 1.6% of total cards issued. Prepaid cards are used primarily to make low-value payments for goods and services (mobile communications, utilities etc) via the internet and mobile phones.

ATMs and POS terminals

Payment card infrastructure for non-cash payments and cash withdrawals has been actively expanded in recent years. At the end of 2009, there were 354,391 POS terminals and 92,530 ATMs in Russia, including 79,505 ATMs with a credit transfer function (compared with 140,096, 27,779 and 16,202, respectively, at the end of 2005).

Cash can generally be withdrawn from any ATM with any Visa and MasterCard credit or debit card. Cards of other international and national card systems are only accepted at certain ATMs. Some ATMs support a range of functions besides cash withdrawals, including payments for utility services, airtime for mobile phones, internet services and cable television subscriptions.

POS infrastructure in Russia is operated by commercial banks and processing companies that provide acquiring services for organisations that accept card payments for goods and services. Payments via the national card systems are usually regional (city/town) payments.

²⁷ Cards of the following international card payment schemes are issued in Russia: Visa, MasterCard, Diners Club, China UnionPay, American Express. Cards of the following international card payment schemes are accepted in Russia: MasterCard, Visa, American Express, Diners Club, Japan Credit Bureau, China UnionPay, Golden Cone, Great Wall International, Travelex.

²⁸ Cards with an e-money function.

²⁹ Employees are paid on their transaction accounts, which can be accessed with debit cards.

Merchants can accept all debit/credit cards of the international card systems on a single POS terminal, but some national card systems require a proprietary POS terminal.

“Cash back” at the POS is not yet offered in Russia and is not covered by the BoR’s regulations. Questionnaires have been sent to Russian banking associations and leading credit institutions to sound out market participants’ opinions on the provision of such a service.

2.2.5 E-money

The active use of e-money in the Russian retail payment services market started several years ago, supported by advances in information and telecommunications technologies.

Two main models of e-money transfer are currently used in Russia:

- via prepaid cards issued by credit institutions;
- via PC software and telecommunication networks (including internet) supported by non-banks under various forms of contractual relationship with customers.

The adoption of the federal law “On the national payment system” has provided a legal basis for e-money regulation. According to the law, only credit institutions (including a new type of non-bank, non-deposit-taking credit institution that will be permitted to transfer funds including e-money) are liable for e-money payments. The law also establishes the procedure for e-money transfers, taking into account the features of the electronic payment instruments used.

2.2.6 Other payment instruments

2.2.6.1 Payments by bank order

Since 2010, a credit institution may use a new kind of payment document – a bank order – for executing payments on a customer’s bank account or deposit account. Bank orders can be used in cases where the credit institution (or its branch) is the payer or the payee and the counterparty to the transaction is a customer.

Bank orders can be used to execute high-volume or recurring payments such as an identical credit transfer to or direct debit from a large number of customer accounts, eg interest payments or bank fees.

3. Funds transfer systems

3.1 Large-value payment systems

The Bank of Russia Payment System (BRPS)

The BRPS is a systemically important payment system that plays a key role in the implementation of monetary and budgetary policy. It also plays a central part in settling payments by financial market participants, including most interbank payments.

In 2009, 942.9 million payments (555.6 million payments in 2005) with a value of 609.9 trillion rubles (194.0 trillion rubles in 2005) were made through BRPS. The total value of payments made through the BRPS was equivalent to 15.6 times Russia’s GDP in 2009.

The average daily volume of payments processed through the BRPS in 2009 was 3.8 million (2.2 million in 2005) and the average amount per transaction was 646.8 thousand rubles in 2009 (349.2 thousand rubles in 2005).

In 2009 about 99.8% of the total volume and 99.9% of the total value of payments made through the BRPS were effected electronically (99.1 and 97.9% respectively in 2005).

The BRPS is used for the settlement of both large-value and small-value payments; the BoR places no limit on the value of individual payments.

The BRPS must, by law, process free of charge all payments arising from federal, regional and municipal government budgets, as well as extra-budgetary funds.

The BRPS comprises the following payment systems, which differ by regional coverage, payment value, rules and daily settlement schedules, categories of participants and payment instruments, transaction speed, and technology:

- the systems for intraregional electronic payments (VER) and for interregional electronic payments (MER) (see Section 3.1.1);
- the Banking Electronic Speedy Payment system (BESP) (see Section 3.1.2); and
- the payment system using letters of advice (see Section 3.1.3).

The BRPS regional subsystem comprises the payment systems in each region (or group of regions), where payments are effected on a daily settlement schedule. Taking into account the existence of nine time zones in Russia, the schedules of regional subsystems are set in local time. Operating hours are usually from 9:00 to 18:00 local time. The BESP system (see Section 3.1.2) operates from 9:00 to 21:00 Moscow time.

The BRPS participants comprise the BoR's branches, credit institutions (or their branches), the Federal Treasury (or its regional offices) and other BoR customers other than credit institutions (ie state bodies and local self-governing bodies, state extra-budgetary funds etc).

To make payments through the BRPS, each customer must have a correspondent account (sub-account) with a regional BoR branch.

To identify BRPS participants, the BoR maintains the Bank Identification Code Directory (Russia's BIC directory), which details the BoR's branches and customers (name, location, payment system used etc). The directory does not include BoR's customers without banking licenses, details of which are recorded in directories kept on a decentralised basis at the regional level.

A separate directory within the BESP system gives details of system participants, including their form of participation and payment limits, if applicable.

Electronic access to the payment system is governed by an electronic document exchange agreement between the BoR and its customers that details the terms and conditions of participation, functional and technical requirements, information security obligations, and business continuity measures.

BRPS is supported on the BoR's own information and telecommunication infrastructure, mainly the collective data processing system (KOI), which comprises easy-access collective data processing centres (KTsOI), the electronic settlement transport system (TSER), which provides the communication channels and a network that supports BoR message transfer formats, and the BoR's customer interaction interface (SVK), comprising the hardware and software that support interaction with the BRPS. In some BRPS regional subsystems, information is processed locally (ie outside the KOI).

Security is assured by methodological, technical, organisational and software measures and protection facilities at all stages of data collection, processing, and storage. These are based on the software and hardware suites of each payment system's information security sub-system.

The BoR has established an information security standard for Russian banking system institutions that is mandatory for the BoR and recommended for all BoR customers participating in the BRPS.

3.1.1 VER and MER systems

Payments are processed in the VER and MER systems in compliance with applicable legislation, BoR's own regulations, and the terms of the agreements between the BoR and its customers.

VER system

The VER systems support electronic payments in the BRPS regional subsystems.

The technology and procedures for making intraregional electronic payments are established by the BoR's regional branches³⁰ and specified in the agreements between the BoR and its customers. Payments in the Moscow Region, which account for a large share of the total value of payments effected through the BRPS, are regulated by special BoR documentation. Payments are settled on a gross basis, using an offsetting mechanism, in runs that take place several times a day, and in real time between the runs.

In other VER systems, payments are executed by batch processing on a gross basis in close to real-time mode or in runs that take place several times a day. Schedules for intraregional electronic payments are set by the BoR's regional branches in local time, taking into account the BESP system schedule. The VER systems settle payments of the following payment documents: payment orders, payment claims and collection orders.

A total of 748.7 million payments with a value of 432.7 trillion rubles were effected through the VER systems in 2009 (464.3 million payments with a value of 153.8 trillion rubles in 2005). They accounted for 79.4% of the total volume and 70.9% of the total value of payments effected through the BRPS (83.6% and 79.3% respectively in 2005).

MER system

The MER system allows electronic payments to be transferred between the VER systems of different BRPS regional subsystems bilaterally and on a decentralised basis. The MER system settles payments using only one kind of payment document, a payment order. The schedule, rules and procedures of the MER system are established by BoR regulations.

In the MER system, payments are carried out on a gross basis with intraday finality, except for settlements between regions located in remote time zones, which have finality no later than the next day (T+1).

A total of 192.5 million payments with a total value of 69.6 trillion rubles were effected through the MER system in 2009 (86.3 million payments with a value of 36.1 trillion rubles in 2005). They accounted for 20.4% of the total number and 11.4% of the total value of payments conducted through the BRPS in 2009 (15.5 and 18.6% accordingly in 2005).

3.1.1.1 Participation

To participate in the VER and MER systems, BoR branches are required to meet the necessary technical and security standards. Participating credit institutions (or their branches) and BoR customers are required to have a bank account with such BoR branches.

As of January 2010, 3,948 participants were registered with the VER systems, this total comprising 630 BoR branches, 1,068 credit institutions and 2,250 branches of credit institutions. The MER system had 3,940 participants, of which 628 were BoR branches, 1,066 were credit institutions and 2,246 were branches of credit institutions.

³⁰ Except intraregional electronic payments in Moscow and the Moscow Region.

3.1.1.2 Types of transactions

Payments of the following type are conducted intraregionally and interregionally: payments of credit institutions (or branches) and their customers; BoR's customers including the Federal Treasury, non-bank organisations (branches); financial market infrastructures and the BoR's own payments.

A range of liquidity sources can be used for settlement, namely (i) available funds in correspondent accounts (sub-accounts) of credit institutions (or their branches); (ii) funds received during the business day; and (iii) the BoR's standing intraday and overnight credit facilities.

3.1.1.3 System operational and settlement procedures

VER system

In the VER systems, settlements are processed according to a set schedule in close to real time during the day or runs that take place several times a day, depending on the particular regional subsystem. To initiate a payment a payer sends an electronic payment message (EPM) to the KTsOI or, if there is no electronic access, sends a paper-based payment document to the relevant BoR branch. The EPM is checked to ensure that the payment document can be fulfilled. EPMs that fail this check are withdrawn from processing and returned to the sender with a message explaining why the payment has been rejected.

When settlement is made, a check is made that sufficient funds are on account to settle the payment document (including funds available from secured intraday and overnight credits). In the Moscow Region, this check also takes into account any offsetting payments. When all verifications have been received and settlement has taken place, the payer (or the BoR branch if the customer payer has no electronic access) is notified electronically that its account has been debited while the payee (or BoR branch) is notified that its account has been credited.

An approved payment document that has not been settled because of insufficient funds is placed in the intraday queue and the payer is notified of its status. At the end of the business day the deferred payment documents are cancelled and the payer is notified.

Customers without electronic access to the BoR branch receive a printed copy of the settled payment document and a customer account statement.

MER system

The MER system that allows electronic payments to be transferred between the VER systems of different regions processes payments in three steps. First, the payment is executed in the VER system that services the payer by debiting the payer's account; second, the payment is sent to the VER system that services the payee and, third, the payee's account is credited.

In each regional subsystem, a specified BoR branch (the MER principal participant) checks and registers interregional electronic payments and returns incorrect payments. Message exchange is supported by servers at the MER Transport Centre in Moscow.

3.1.1.4 Risk management

Credit risk

All payments in the VER and MER systems are settled in BoR money, mitigating credit risk on settlement assets for system participants.

To reduce credit risk for the BoR and credit institutions, BoR regulations stipulate that settlement through the VER and MER systems is on a gross basis. BoR regulations, which

apply to all credit institutions and financial market infrastructures, define irrevocability and payment finality as follows: a payment carried out through the VER and MER systems is considered irrevocable as soon as the customer payer's account is debited in the BoR branch and it is considered final after the customer payee's account is credited in the corresponding BoR branch.

As there is no "zero-hour" rule in Russian legislation, the bankruptcy of a settlement participant does not affect a payment's irrevocability and finality.

Other measures that address credit risk include the following:

- daily monitoring of credit institutions to ensure that reserve requirements are fulfilled, debts to the BoR are discharged, no correspondent accounts with the BoR are blocked for legal reasons;
- prudential requirements for the financial stability of credit institutions;
- refinancing limits and limits on collateral intraday and overnight credits.

Liquidity risk

BoR regulations stipulate that customer payments can be effected only within a customer's liquidity limit and that the customer should be notified of its balance as soon as its account is credited.

BoR regulations also govern the collateral mechanism whereby the BoR provides intraday or overnight loans. The BoR can also provide liquidity by means of intraday repo transactions.

Credit institutions may raise additional liquidity (secured intraday and overnight credits) against collateral of BoR eligible securities, as well as eligible non-market assets, such as bills of exchange, claims under credit contracts etc.

Operational risk

The BRPS and the VER and MER systems software infrastructures are based mainly on the collective BoR data processing system. Operational risk management is implemented through measures that include:

- duplication of data processing centres, data processing systems and databases;
- backup of technically important facilities and communication channels;
- fault-tolerant equipment and servers;
- centralised management of software and communication systems;
- use of diagnosis and audit facilities;
- regular training of staff involved in operations; and
- application of business continuity principles at all levels;

If operations are disrupted, all parties involved are informed immediately and appropriate measures are taken. If necessary, a backup data processing centre is put into operation.

3.1.1.5 Pricing policy

While the BoR aims to recover its costs for the BRPS settlement service, the fees charged depend on a variety of factors: the type of payment (ie which payment system is used to settle a payment), the payment method (ie electronic or paper-based), and the time that payment documents are transferred.

The fee structure incentivises settlement participants to access the BRPS electronically and to submit payment instructions early in the day. Hence, in the VER and MER systems the

lowest fees apply to customers using electronic access (from seven to 16 rubles per payment³¹ while higher fees (from 17 to 22 rubles per payment) apply to customers using paper-based payment instruments.

Intraregional electronic payments			
Payment method	Transmission channel	Transmission time	Fees¹
Electronic payments (payments using full-format electronic payment document)	Via communications channels	First time period ²	7.00
		Second time period	10.00
		Third time period	13.00
		Overtime	20.00
	On magnetic carriers ³		16.00
	Paper-based		20.00
Other payments using electronic technology (payments using abridged-format electronic documents)	Via communications channels	First time period	8.00
		Second time period	11.00
		Third time period	14.00
		Overtime	21.00
	On magnetic carriers		17.00
	Paper-based		21.00

Interregional electronic payments			
Payment method	Transmission method	Transmission time	Fees
Electronic payments (payments using full-format electronic payment document)	Via communications channels	First time period	8.00
		Second time period	12.00
		Third time period	16.00
		Overtime	24.00
	On magnetic carriers		17.00
	Paper-based		21.00

Paper copy of an electronic document service	
Fee for printing out a paper copy of an electronic payment message	6.00
Fee for printing out a paper copy of an electronic payment document	6.00

¹ In rubles; fees per payment. ² First time period: from the beginning of business day to 13:00 local time; second time period: from 13:00 to 16:00 local time; third time period: from 16:00 to 18:00 local time. ³ CDs, flash drives etc.

³¹ Depending on the time the payment document arrives at the BRPS.

Fees for VER and MER services increase towards the end of the business day with the aim of smoothing out settlement traffic over the course of the day, accelerating funds turnover and improving liquidity management for credit institutions. Higher fees (from 20 to 24 rubles per payment) are charged for the electronic payment documents received from customers closer to the end of the business day.

3.1.1.6 Major current and future projects

The VER and MER systems will be used as a basis for a planned non-urgent payment service.

3.1.2 *BESP system*

The BESP system is a national real-time gross settlement system operated centrally on the federal level. The BESP system is interlinked with the BRPS's regional subsystems through electronic messaging. The BESP system started operations at the end of 2007.

3.1.2.1 Institutional structure

The BESP system is governed by BoR regulations and instructions that set operational rules, payment procedures, system participation and the maintenance of the participants' directory. The BoR has also defined guidelines for operation and oversight.

The BoR has established a special monitoring and control centre to manage the BESP. Its day-to-day responsibilities include control of the BESP operations schedule, participation management and control of the intraday payments queue, which also entails, in case of gridlock, cancellation (within one business day) of payment limits set by the participants and the offsetting of queued payments by multilateral optimisation.

3.1.2.2 Participation

BESP participants include BoR branches that provide settlement services to the BoR's customers, other BoR divisions that make payments, credit institutions and their branches, and the Federal Treasury and its regional offices.

BESP participants are categorised as special, direct and associated participants.

Special participants (SP) are BoR branches with the authority to effect payments through the BESP system. BoR customers may be direct or associated participants of the BESP system.

Direct participants (DP) have direct access, allowing them to conduct payments both for themselves and on behalf of customers in real time in accordance with the single country-wide settlement schedule. Such participants have access to the full range of BESP services. To qualify as DPs, credit institutions must meet stringent security and technical requirements.

Associated participants (AP) have indirect access to the BESP system through the BRPS regional subsystems and the range of services they can use is restricted. To qualify as an AP, a credit institution must be in account with an SP and have an electronic messaging link to the BoR.

As of January 2010, the BESP system had 1,155 registered participants, of which 205 were SPs, 457 were DPs and 493 were APs. As of the end of 2009, BESP participants included 870 credit institutions (or their branches).

BESP services to participants

The BESP system provides settlement for the payments to other BESP system participants that are initiated by direct and associated participants both on their own behalf and on behalf of customers. Settlement of payments from DPs is carried out according to the BESP system

schedule (ie from 9:00 to 21:00 Moscow time), while payments of the APs are carried out according to the schedules of the regional subsystems.

APs are kept informed about their payments settled through the BESP system and about their bank account balances.

DPs have access to a range of additional services, including management of payments (setting priorities and limits on payments, adding/removing payments to/from the payment queues). They also have access to information on liquidity available at the DP's branches for BESP operations; balances on correspondent sub-accounts and real-time data on settlements of DP payments effected through the BESP system, excluded or cancelled payments etc.

Participation in the BESP system does not preclude BoR customers from effecting payments through the VER and MER systems.

3.1.2.3 Types of transactions

Payments in the BESP system are effected between BESP participants only. The BESP system is designed to settle participants' payments in real time and on a gross basis, including financial market and monetary policy transactions, budget and interbank payments.

More than 63,000 payments with a total value of 106.6 trillion rubles were effected through the BESP system in 2009. There are no restrictions on the minimum value of a payment to be processed through the BESP system. However, payments of more than 1 million rubles accounted for 86.4% of the total volume and almost 100% of the total value of payments in the BESP system. The average payment amounted to 1.7 billion rubles.

Payments effected through the BESP system accounted for 17.5% of the total value of payments through the BRPS in 2009.

Participants decide on grounds of speed and cost whether to route a payment through the BESP.

3.1.2.4 System operation and settlement procedures

The BESP system is supported within the BoR's data processing infrastructure, electronic settlement transport system (TSER) and customer interface (SVK).

Payments in the BESP system are effected using payment orders in the form of electronic payment messages, which are also used to exchange information (inquiries, confirmations etc).

DPs and APs can make payments using the liquidity on their bank accounts at BoR branches. Thus, participants do not need to open additional correspondent (bank) accounts. However, since DPs may effect payments in the BESP system as well as in the BRPS' regional systems, they are able to redistribute liquidity across accounts during the business day.

A payment from one DP to another DP is settled instantaneously in the BESP system. The DP payer sends an EPM to the KTsoI of the BESP system, which checks whether the EPM is authentic, if all details are correct and if the payment order can be fulfilled. Once these checks are completed, the DP payer's account is debited immediately and the DP payee's account is simultaneously credited. If the checks for authenticity or correctness fail, the EPM is dropped from the processing. If, on the other hand, there are insufficient funds on the DP payer's account, the DP's payment is queued until sufficient funds are received to automatically carry out the settlement. The DP payer is then notified that the settlement has been completed.

An AP may only access the BESP system indirectly, through the BRPS regional system.

A payment by one AP to another AP is settled in three steps:

- (i) an EPM is sent and checked (including a check to verify whether sufficient funds are on the AP payer's account) in the BRPS regional subsystem. It is then sent to the BESP system processing and settlement centre;
- (ii) the settlement operation is carried out in the processing and settlement centre and a confirmation is sent to the BRPS regional subsystem to debit the AP payer's account. At the same time, an EPM is sent to the BRPS regional subsystem to credit the AP payee's account; and
- (iii) the AP payer's account is debited and the AP payee's account is credited in the correspondent BRPS regional subsystems.

A DP's payment to an AP, as well as an AP's payment to a DP, is settled in two stages and represents a combination of the BESP system settlement procedures described above (DP to DP and AP to AP).

3.1.2.5 Risk management

Credit risk

Real-time settlement is the principal means for credit risk mitigation in the BESP system. To manage other credit risk aspects, the BESP system uses procedures similar to the ones described above for the VER and MER systems.

To mitigate credit risk for the BoR and credit institutions that are BESP participants, the BoR's regulations define irrevocability and finality for all payments effected through the BESP system as follows: a payment is considered irrevocable as soon as the payer's account is debited. A payment is final as soon as the payee's account is credited. Subsequently, the corresponding electronic information messages are simultaneously sent to the payer and payee. Settlement is effected individually for each payment in real time during the business day.

To further reduce credit risks, BESP participants may also set bilateral and multilateral limits on payments to other system participants.

Liquidity risk

If funds are insufficient, the BoR can provide intraday liquidity to BESP participants. Credit institutions can draw on collateralised intraday and overnight credits within their overdraft limit. Moreover, DPs can use BoR-provided software applications to manage queued payments, receive status information on incoming or outgoing payments and offset payments within the queue. APs can manage payment queues and receive information on the status of a payment only within their regional subsystems.

The BESP system can identify and resolve gridlock situations and manage DP payment queues, thereby contributing to real-time risk management.

A DP (credit institution' head office) can receive information about the liquidity of its DP branches so that it can manage its liquidity efficiently during the business day.

Operational risk

The approach to managing operational risk within the BESP system is similar to that applied to the VER and MER systems. System functions, including the IT system, are continuously monitored and payment activity is analysed daily with a view to ensuring smooth operation.

Data security is assured by a combination of technical and organisational measures. If operations are disrupted, all parties involved are informed immediately and appropriate measures are taken. If necessary, a backup data processing centre is put into operation.

BoR regulations and instructions outline BoR responsibilities in the event of a system disruption, together with specified responses and contingency plans.

Real-time and historical data are stored in two separate centres, ensuring that data files can be restored in the event of any malfunction.

3.1.2.6 Pricing policy

BESP system fees are set according to the type of participation (DP or AP) and thus on the level of service. They also depend on the payment's priority (express or regular). Payments through the BESP system attract higher fees than those of other payment systems. APs are charged 20 rubles per regular payment. DPs are charged 25 rubles for a regular payment and 30 rubles for an express payment.³² Certain information services also attract a fee (of 9-13 rubles per executed electronic inquiry and six rubles per paper copy of an EPM).

A scaled discount system based on payment volumes has been introduced to encourage settlement through the BESP and to conform with international practice.

Payments carried out through the BESP system	
Type of service	Fees
Express payments by direct participants	30.00
Regular payments by direct participants	25.00
Regular payments by associate participants	20.00
Information services in the BESP system	
Fee per completed liquidity or account balance inquiry	13.00
Fee per completed inquiry for other services	9.00
Paper copy of an electronic document service	
Fee per paper print-out of an electronic payment message	6.00
Fee per paper print-out of an electronic payment document	6.00
Discount rates	
Number of payments	Discount rate, %
301–500	4
501–1,000	5
More than 1,000	6

3.1.2.7 Major current and future projects

The BESP system will be further developed to improve its capabilities as a settlement system for large-value and urgent payments, and for financial market transactions on a delivery versus payment basis. The system will also be used as an instrument for monetary policy operations. Therefore, as of August 2010, all eligible credit institutions (branches) that were not already BESP participants were given AP status.

BESP participants will in future also be able to access the BESP system via SWIFT.

³² Only DPs can initiate express payments.

3.1.3 Payment system using letters of advice

Payments using postal and telegraphic letters of advice are initiated on paper and settled in the BRPS. Paper-based payments are used where BoR are not equipped to make electronic payments or the paper-based payment instrument is not machine-readable at the BoR branch.

Payments by letters of advice require just over three days to complete on average, given the labour-intensive process for intraregional and interregional settlement. Settlement time for postal letters of advice depends mainly on the payment documents delivery service involved.

The share of paper-based payments in the total volume and value of BRPS payments is small. Some 1.6 million paper-based payments with a total value of 887.9 billion rubles were made in 2009 (5.1 million payments with total value of 4.1 trillion rubles in 2005). They accounted for 0.2% of the total volume and 0.1% of the total value of payments effected through the BRPS.

3.1.3.1 Participation

BRPS participants using letters of advice are the BoR branches and divisions listed in the national BIC Directory.

Users of letters of advice within the payment system include credit institutions (or their branches) and other non-bank BoR customers.

3.1.3.2 Types of transactions

Payments using letters of advice can be effected across BoR customers' accounts for any type of payment instrument.

3.1.3.3 System operation and settlement procedures

The payment system using letters of advice is decentralised. Paper-based payments are effected during the business day of BoR branches at the respective local times.

Information support for the payment system using letters of advice is provided by the BoR's collective data processing system and local computer systems.

When it receives paper-based payment documents, a BoR branch checks their format and security and also confirms that the payer has sufficient funds on account. After these checks are completed, the payer's account is debited and the payment documents are sent to the payee's BoR branch with instructions to credit the payee's account.

Most payment documents relating to postal letters of advice are transported between BoR branches by state services such as the postal service and BoR branch staff.

Payment documents relating to telegraphic letters of advice are transmitted by telegraph using BoR teletype facilities or on paper to the Russian Ministry of Communications and Mass Media divisions for subsequent transmission to BoR branches by telegraph.

3.1.3.4 Risk management

As payments using letters of advice are effected on a gross basis across the same bank (correspondent) customer accounts as electronic settlements, the risk management procedures are similar. Control processes include visual verification at the BoR branch, to mitigate the risks involved in the physical transfer of documents between branches.

3.1.3.5 Pricing policy

Fees for payments using letters of advice depend on the location of the BoR customers involved in the transfer. The fee for an intraregional transfer is 13.4 rubles per payment by

telegraph and 14.3 rubles by post; the price of an interregional transfer is 14.3 rubles by telegraph and 16.8 rubles by post.

3.1.3.6 Major current and future projects

Paper-based payments will increasingly be relegated to backup status given the growing prevalence of electronic payment technology.

4. Systems for post-trade processing, clearing and securities settlement

4.1 General overview

The two leading providers of trade, clearing and settlement services on the Russian securities market are the Moscow Interbank Currency Exchange Group (MICEX Group) and the Russian Trading System Group (RTS Group), which are both vertically integrated organisations. Each group operates its own securities settlement system (SSS) and clearing system.

The MICEX Group operates the stock, government securities and derivatives markets.³³ Both stocks and bonds are traded in the stock market while only bonds are traded in the government securities market (GSM). In the derivatives market, options and futures are traded, based on various underlying assets including stocks, stock indices, interest rates, currencies and commodities.

The RTS Group operates the stock and derivatives markets. Both stocks and bonds are traded in the stock market. In the derivatives market are traded options and futures based on underlying assets that include stocks and stock indices.

The majority of Russian securities and derivatives is traded on the MICEX and RTS Group markets. The basic difference between the MICEX and RTS markets is that a unit of the GSM is located within MICEX, which is used to conduct monetary policy.

Market participants choose an exchange for securities transactions on the basis of participation criteria, system functionality, risk management and fee scale.

MICEX and the RTS Clearing Chamber (RTS CC) act as CCPs³⁴ for transactions on the markets of MICEX Group and RTS Group. There is currently no CCP for OTC securities transactions in Russia. The National Settlement Depository (NSD)³⁵ and the Depository Clearing Company (DCC) act as central securities depositories (CDSs) and provide book-entry transfers and a centralised depository. They also conduct settlement for securities traded on the floors.

The cash legs of securities transactions are settled through the NSD, which is part of the MICEX Group, and the RTS Settlement Chamber (RTS SC),³⁶ which is part of the RTS Group.

³³ The MICEX Group also operates the currency market. Trading, clearing and settlement services for currency transactions are provided by the MICEX Group's infrastructure.

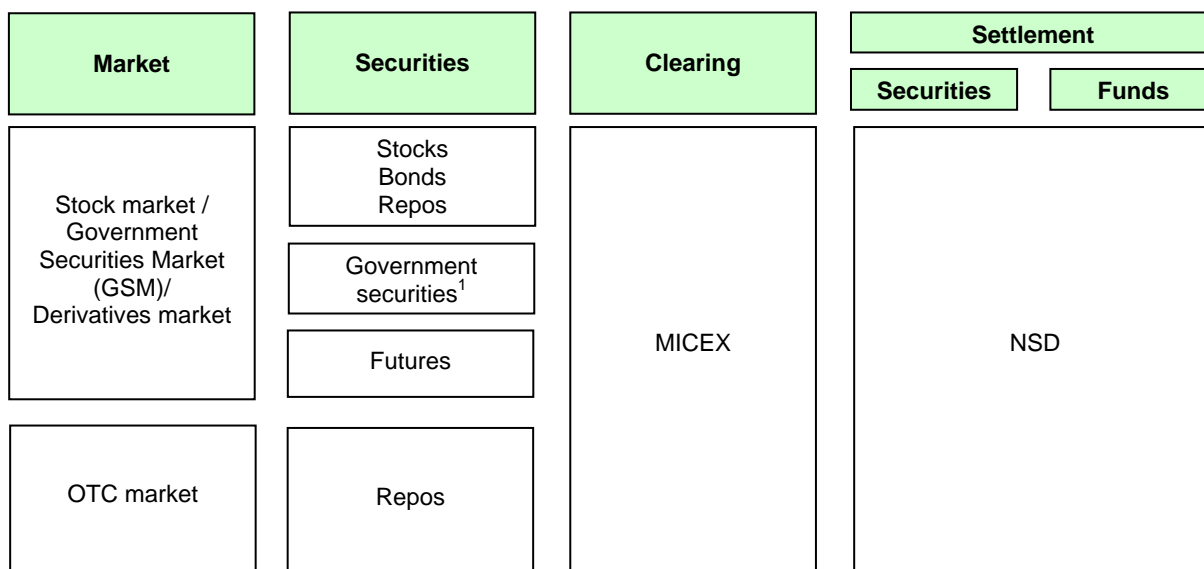
³⁴ In some cases MICEX also provides non-CCP clearing (see Section 4.3.1.3).

³⁵ The NSD is licensed by the BoR as it was founded in November 2010 as a result of a merger between NDC and MICEX SC. NSD provides securities settlement and funds settlement services.

³⁶ RTS SC is licensed by the BoR as it provides funds settlement services for securities transactions.

Chart

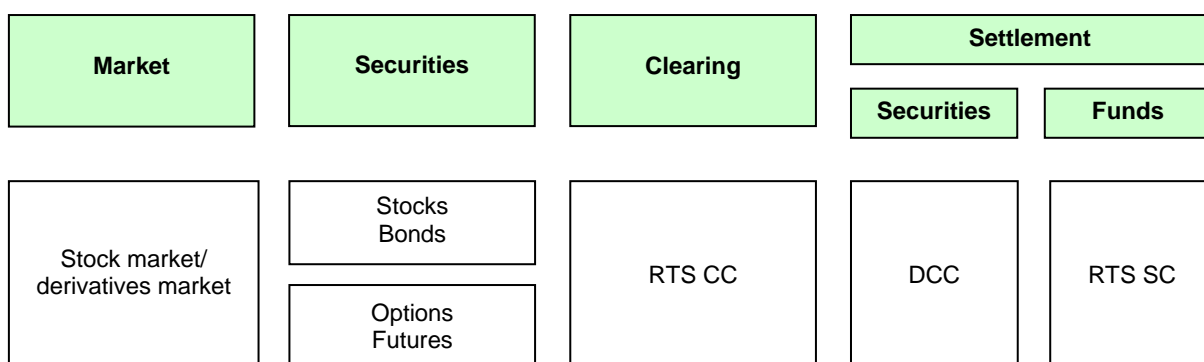
Summary of securities trading, clearing and settlement systems in the MICEX Group



¹ Federal bonds: GKO, OFZ,³⁷ BoR bonds,³⁸ sovereign Eurobonds, subfederal, municipal bonds.

Chart

Summary of securities trading, clearing and settlement systems in the RTS Group



4.2 Post-trade processing system

At present, no separate organisation performs the functions of a trade confirmation system or a trade repository. Post-trade services (after trade but before clearing) are provided within the MICEX and RTS Groups.

³⁷ GKO: government short-term zero-coupon bonds; OFZ: federal loan bonds.

³⁸ BoR bonds are bearer debt securities issued by the BoR exclusively for monetary policy purposes.

4.3 Central counterparties and clearing systems

4.3.1 Moscow Interbank Currency Exchange (MICEX)

4.3.1.1 Institutional framework

MICEX acts as a CCP³⁹ for trades conducted in the markets it operates. MICEX performs clearing in accordance with (i) the requirements of the federal law “On the securities market”, (ii) FFMS regulations and, in particular, the regulation “On clearing activity in the securities market of the Russian Federation” (the Securities Clearing Regulation), (iii) the MICEX clearing rules and (iv) MICEX agreements with clearing participants.

The major shareholders of MICEX are the BoR and Russian banks.

MICEX is supervised by the FFMS.

4.3.1.2 Participation

In accordance with the MICEX clearing rules, only credit and other financial institutions that have clearing contracts with MICEX can be MICEX clearing participants. As of end-June 2010, there were 696 participants for stock market transactions, 286 for GSM transactions, 205 for derivatives market transactions and 139 (credit institutions) for OTC repo transactions with the BoR.⁴⁰

Clearing participants for derivatives market transactions must have minimum equity capital of EUR 0.1–10 million (for credit institutions) or EUR 0.1–1 million (for other financial institutions).⁴¹

Clearing participants for derivatives market transactions may be either direct clearing participants or general clearing participants. Direct clearing participants clear only for themselves while general clearing participants may also clear on behalf of other trade participants.

4.3.1.3 Types of transactions cleared

As a clearing organisation MICEX provides:

- CCP clearing services for (i) equities from the MICEX Index⁴² list and for high-quality bonds with settlement from T+1 to T+3,⁴³ (ii) repo transactions with repo near-leg settlements from T+0 to T+2 and repo far-leg settlements the day following settlement of the near leg; and (iii) futures traded on the derivatives market, including financial and commodities futures;
- non-CCP clearing services for (i) transactions on MICEX GSM, (ii) transactions on MICEX SE stock market with settlement from T+0 to T+30, (iii) repo transactions, which can be for up to 180 days⁴⁴ and (iv) for OTC repo transactions with the BoR.

³⁹ In some cases MICEX also provides non-CCP clearing (see Section 4.3.1.3).

⁴⁰ One financial institution can make transactions in more than one market.

⁴¹ The equity capital requirements for credit institutions and financial institutions vary according to the type of financial instrument cleared and the category of participants.

⁴² The MICEX Index is a major stock market index, comparable to the Dow Jones, Nikkei, Dax etc.

⁴³ Participants can choose the settlement date.

⁴⁴ Participants can choose CCP or non-CCP clearing for short-term repo transactions (from T+0 to T+2).

4.3.1.4 Operation of the system

Transactions with the CCP are performed on the open-offer principle (without novation). MICEX assumes the obligations of its participants, determines the volume of securities and value of funds to be submitted by each participant and notifies clearing participants and NSD as necessary.

NSD provides settlement of securities and the cash legs of securities transactions effected in the stock market and GSM of the MICEX Group as well as the transfer of margin on transactions in the derivatives market.

Securities transactions are settled on the DVP3 model.

4.3.1.5 Risk management

The MICEX risk management system consists of margin requirements, guarantee funds and participation requirements (see Section 4.3.1.2).

(i) Margin requirements.

MICEX requires an initial margin from the clearing participants in the MICEX Stock Exchange (MICEX SE) stock market. This can be provided both in cash and in securities and, on the MICEX GSM, funds and securities must be 100% pre-deposited. In the MICEX derivatives market, margin requirements depend on the total value of open positions. There is a real-time check of collateral sufficiency in the MICEX derivatives market. Collateral requirements are recalculated daily, and the variation margin is called based on a mark to market calculation.

(ii) Guarantee funds

Currently all guarantee funds are drawn from MICEX's own capital.

For the MICEX SE stock market, a basic guarantee fund (of 100 million rubles) and an additional guarantee fund⁴⁵ are designed to cover losses from a CCP participant's default. The MICEX derivatives market has a reserve fund (of 2 billion rubles) and an accumulation fund (default fund).

4.3.1.6 Links to other systems

The MICEX clearing system is linked to the NSD.

There are currently no links with foreign CCPs and CSDs.

4.3.1.7 Pricing

No clearing fees are charged on a per-transaction basis on the MICEX GSM and derivatives market. Instead, market participants pay an overall MICEX commission fee (exchange fee).

Transactions on the MICEX and MICEX SE stock markets attract a clearing fee for each transaction which varies according to its type and value.

4.3.1.8 Major current and future projects

MICEX has the following plans for its future development:

- extension of CCP stock market clearing with T+n (n>3) settlements;

⁴⁵ An additional guarantee fund is used to cover potential defaults of CCP members, while a basic guarantee fund is used to cover losses during non-CCP clearing.

- improved risk management by instituting a joint fund based on contributions from clearing participants;
- providing CCP services for transactions on other exchanges and the OTC market.

4.3.2 The RTS Clearing Centre

4.3.2.1 Institutional framework

RTS CC acts as a CCP for the trades conducted in the markets it operates. RTS CC is a subsidiary of the RTS Stock Exchange (RTS SE).

RTS CC's legal, regulatory and supervisory framework is similar to that of MICEX.

4.3.2.2 Participation

Only credit institutions and other financial institutions that have clearing contracts with the RTS CC can be RTS CC clearing participants. At present, there are some 357 participants, including 60 non-residents.⁴⁶

No equity capital requirement is specified for credit institutions and financial institutions that participate in the RTS CC.

4.3.2.3 Types of transactions cleared

RTS CC provides CCP clearing services for (i) equities and corporate bonds of Russian issuers traded on the stock market with settlement from T+0 to T+30;⁴⁷ and (ii) futures traded on the derivatives market, including financial and commodities futures and options.

4.3.2.4 Operation of the system

Transactions with the CCP are conducted on the open-offer principle. The RTS CC assumes the obligations of its participants, determines the volume of securities and value of funds to be submitted by each participant and notifies RTS SC, DCC and clearing participants as necessary.

The DCC or the Settlement Depository Company (SDC)⁴⁸ provides settlement for the securities legs of securities transactions effected on the RTS stock market and the St Petersburg Stock Exchange (SPBEX). RTS SC settles the cash legs of securities transactions in the stock market of the RTS Group and transfers variation margins on transactions in the derivatives market.

Securities transactions are settled on the DVP3 model.

4.3.2.5 Risk management

The RTS CC risk management system consists of margin requirements and guarantee funds.

(i) Margin requirements.

Clearing participants are obliged to deposit collateral (initial or deposit margin) against any stock or derivative transactions that exceed the limit value for uncollateralised transactions.

⁴⁶ As of end-2009.

⁴⁷ Participants can choose the settlement date.

⁴⁸ SDC is a securities depository licenced by the FFMS.

Such collateral can consist of cash and/or securities. The RTS CC continuously monitors collateral adequacy.

To mitigate losses in case of default in the derivatives market, the RTS CC re-calculates open positions twice a day on a mark to market basis and transfers the variation margin.

(ii) Guarantee funds⁴⁹

To mitigate clearing risks, the RTS CC maintains insurance, reserve and guarantee funds.

The insurance fund is based on contributions from clearing participants, while reserve and guarantee funds consist of the RTS CC's own assets.

These funds are designed to cover the liabilities of a clearing participant in the event of its default and to complete the settlement. The total value of these funds is more than USD 60 million.⁵⁰

4.3.2.6 *Links to other systems*

The RTS CC is linked with the RTS SC for the settlement of the cash legs of securities transactions conducted on the trading floor of the RTS Group and with the DCC and SDC for the settlement of the securities legs of securities transactions.

There are currently no links with foreign CCPs and CSDs.

4.3.2.7 *Pricing*

The RTS CC's clearing fee for stock market transactions is a percentage of the transaction's value.

The clearing fee for derivatives market transactions is charged on the fulfilment of the delivery obligation. The RTS CC levies a fixed commission fee for the execution of each future or option transaction.

The RTS CC does not charge a participation fee.

4.3.2.8 *Major current and future projects*

A project is under way to extend the RTS CC's CCP services to derivatives transactions traded on other exchanges.

4.4 **Securities settlement systems**

The NSD and DCC are the CSDs⁵¹ that provide securities settlement services for the securities settlement systems of, respectively, the MICEX and the RTS Groups.

4.4.1 ***The National Settlement Depository***

4.4.1.1 *Institutional framework*

The NSD provides securities settlement services according to (i) the requirements of the federal law "On the securities market", (ii) FFMS regulations and, in particular, the regulation

⁴⁹ Default funds.

⁵⁰ As of end-2009.

⁵¹ The NSD also provides funds settlement.

“On depository activity in the Russian Federation”, (iii) the rules of the NSD and (iv) the depository agreement with NSD participants. MICEX is the only NSD shareholder.

The NSD is supervised by the FFMS and the BoR.

4.4.1.2 Participation

Participants for securities settlement are the same as for all securities clearing, except for derivatives transactions (See section 4.3.1.2).

4.4.1.3 Types of operations

NSD provides funds and securities settlement services for all securities transactions (except for derivatives) traded on the floors of the MICEX Group.

4.4.1.4 Operation of the system

Securities transactions effected on the floors of the MICEX Group are settled by NSD on the basis of orders received from MICEX no later than 18:45 on the settlement date. Participants are required to deliver securities to NSD's accounts between 10:00 and 17:00 on the settlement date.

Settlement is effected according to the settlement day schedule; settlement times vary according to the type of security and clearing (CCP or non-CCP).

NSD also provides settlement for the cash legs of securities transactions effected on the floors of the MICEX Group.

Securities transactions are settled on the DVP3 model.

NSD provides its participants with daily statements on settled transactions.

4.4.1.5 Risk management

The NSD risk management system comprises the following interrelated measures and arrangements.

A DVP mechanism substantially eliminates principal risk on the settlement of securities transactions.

Also, as final settlement of some securities occurs no later than T+3 (T+1 for some stock market transactions) the volume of trades outstanding is limited, reducing aggregate market exposure.

Operational risks are addressed by internal control processes as well as IT security measures and a backup data centre. Business continuity is ensured by a recovery plan, including procedures for data and systems recovery.

Risks related to NSD's depository activity are insured with leading Russian insurance companies.

4.4.1.6 Links to other systems

NSD is linked to the securities settlement system of the RTS Group for securities settlements. In addition, NSD is linked to Russian custodian banks (Gazprom Bank, Sberbank Russia, ING Bank (Eurasia), Citibank) and with the CSDs of Kazakhstan, Belarus and Azerbaijan. Through these links, NSD provides depository and settlement services for foreign securities.

NSD is also linked to the BESP system, the BoR's RTGS system (see Section 3.1) for final settlement of the cash leg of securities transactions traded on-floor. NSD's account with the BESP system is used for the collection of cash prefunding from market participants and for

final settlement using the BESP system of the cash leg of securities transactions for market participants that have authorised NSD to do so.

4.4.1.7 Pricing

Fees for settlement services provided by NSD are set at 100 rubles per transaction. Fees are charged on a monthly basis. There is no annual commission fee.

4.4.2 The Depository Clearing Company

4.4.2.1 Institutional framework

DCC provides securities settlement services under the same regulatory framework as NSD (see Section 4.4.1.1). RTS SE is DCC's major shareholder.

DCC is supervised by the FFMS.

4.4.2.2 Participation

Participants for securities settlement are the same as for all securities clearing (see Section 4.3.2.2).

4.4.2.3 Types of transactions

All securities transactions traded on the floors of the RTS Group are settled through DCC.⁵²

4.4.2.4 Operation of the system

DCC settles securities transactions effected on the floors of the RTS Group on the basis of orders received from the RTS CC from 17:00 to 19:00 on the settlement date. Participants are required to deliver securities to DCC's accounts from 9:45 to 18:00 on the settlement date.

Settlement takes place according to the settlement day schedule with settlement times varying according to the type of securities.

Securities transactions are settled on the DVP3 model.

RTS SC settles the cash legs of securities transactions effected on the floors of the RTS Group and, like the NSD, is linked to the BESP system (see Section 4.4.1.6).

DCC provides its participants with daily statements on settled transactions.

4.4.2.5 Risk management

DCC employs several risk management tools. Its DVP mechanism substantially eliminates principal risk on the settlement of securities transactions.

Operational risks are addressed by compliance and data security measures, while business continuity is assured by a recovery plan and a remote backup computer centre.

Risks arising from DCC's depository activity are insured.

4.4.2.6 Links to other systems

DCC is linked to the securities settlement system of the MICEX Group for securities settlement. In addition, DCC is linked to Russian-based custodian banks (ING Bank

⁵² DCC also provides securities settlement services for equities transactions on the SPBEX stock market.

(Eurasia), Citibank, VTB Bank, Deutsche Bank) and with the CSDs of the Ukraine, Kazakhstan and Belarus. Through these links, DCC provides depository and settlement services for foreign securities.

To provide securities settlement in the international financial markets, DCC has an account with Euroclear Bank.

4.4.2.7 Pricing

The settlement fee is set at 75 rubles per securities issue (regardless of the number of transactions involving a given securities issue that may be effected during the business day).

Information on DCC fees is publicly available; the fee scale is the same for all participants.

4.4.2.8 Major current and future projects

DCC plans to provide a DVP settlement service (i) in euro and (ii) over the securities settlement accounts of Russian custodians and CSDs.

4.5 Use of securities infrastructure by the central bank

The BoR carries out operations with federal government securities and BoR bonds in order to conduct monetary policy, regulate liquidity and influence the level of interest rates.

Operations with federal bonds (GKO, OFZ) and BoR bonds are carried out by the BoR using MICEX Group infrastructure. For this purpose the BoR enters into agreements with the respective institutions of the MICEX Group for the use of its trading, clearing and settlement services.