

The Central Bank of the Russian Federation

**P S S**

# **Payment and Settlement Systems**

## **Analysis and Statistics**

**No. 9**

Payment System of Russia  
in 2007

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# **PAYMENT SYSTEM OF RUSSIA IN 2007**

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## Introduction

The present survey of the Russian payment system development in 2007 is the first issue of the *Analysis and Statistics* series of the Bank of Russia specialised publication *Payment and Settlement Systems*.

The purpose of this survey, just as the purpose of the surveys published earlier as part of the *International Expertise* series, is to analyse the role of the central bank as a catalyst for modernisation and reformation of the Russian payment system. The major element of this process is the monitoring of payment systems development. Another important activity is the research in this field that forms a basis for the evaluation of the effect that the new trends in the Russian payment system have on its reliability and efficiency.

The most complete reference information on the Russian payment system available to a wide range of users contained the Red Book (*Payment Systems in Russia*) published in 2003. It was compiled by the Bank of Russia jointly with the Committee on Payment and Settlement Systems (CPSS) of the Bank for International Settlements (BIS). A brief account of the Russian payment system development may be found in the Annual Reports of the Bank of Russia<sup>1</sup>. However, the present situation dictates the need to upgrade the Bank of Russia communication strategy, in particular, by informing the public regularly and in greater detail about the current state of the payment and settlement systems.

Chapter 1 of this survey presents general characteristics of the payment services provided by the banking system of Russia. Although cash plays a significant part in the payment system of Russia, Chapter 1 is focused on cashless payments and the accessibility of payment services provided by the banking system of Russia. Chapter 2 gives the analysis of payment services provided by credit institutions in the federal districts. Specifically, it deals with the concentration of payment services in the federal districts and the process of convergence of Russian regions in terms of accessibility of payment services. Chapter 3 contains the main characteristics of the individual payment systems. Comparative tables including key indicators for the development of the payment systems of Russia and other selected countries are presented in the addendum.

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<sup>1</sup> The Red Book and the Annual Reports of the Bank of Russia are available on the Bank of Russia's official website at [www.cbr.ru](http://www.cbr.ru).



**Chapter 1. PAYMENT SERVICES PROVIDED  
BY THE BANKING SYSTEM OF RUSSIA**

In 2007, the payment system of Russia<sup>1</sup> developed against the background of sustained economic growth. GDP increased 8.1% over the year. The exchange value of the Russian ruble gained 3.7% against the US dollar but lost 1.2% against the euro. Relative to the bi-currency basket used in the calculation of the effective exchange rate, the ruble depreciated by just 1% over the year. Although inflation exceeded the target set for 2007 and stood at 11.9%, the overall macroeconomic situation remained favourable for the use of the Russian ruble as a means of payment and for the further development of the payment system of Russia.

## Payment instruments

### Cash

By 2008, there were 3.7 trillion rubles of cash in circulation outside the banking system (M0). Over the year this amount increased by 0.9 trillion rubles, or 32.9%. The share of cash in total money supply (M2) reduced by 3.1 percentage points over that period and stood at 27.9%.

As in the previous years, in 2007 the amount of cash in the Russian economy grew faster than nominal GDP and this resulted in the expansion of cash value per unit of GDP. In 2005, there were 8 cash rubles per 100 rubles of GDP on average, whereas in 2006 there were 9 rubles and in 2007 there were 10 rubles.

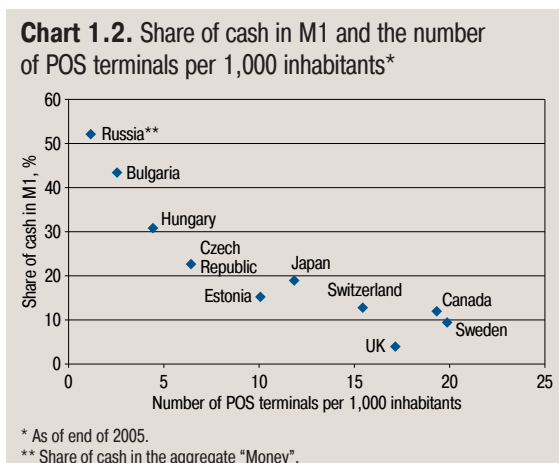
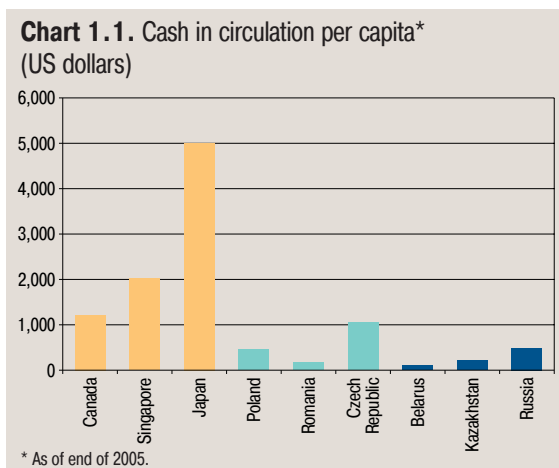
Demand for cash is not only connected with its use as a payment instrument. Since in some cases cash fulfils other functions (e.g. it may serve as a store of value), the amount of cash in circulation usually exceeds the economy's needs related to the effecting of payment transactions<sup>2</sup>.

Cash remains the main payment instrument in effecting retail payments, mostly due to a tradition. Besides, there is still a large part of the population that does not use banking services, while the retail network accepting bank cards is underdeveloped. At the same time the use of cash as a payment instrument normally does not entail additional expenses for the public.

The rapid expansion of the ATM network led to growth in cash withdrawals from them. In 2007, the value of such operations increased by 20% year on year and reached almost 5 trillion rubles, or 15.1% of GDP, while the average value of an ATM cash withdrawal topped 4,000 rubles.

In 2007, the average amount of cash in circulation per capita increased by 35.3% and stood at 22,800 rubles, or about \$900. The analysis of this indicator in different countries shows that by the end of 2005 Russia was at the same level as Poland,

**Payment instrument** — any instrument enabling the holder/user to transfer funds. Source: *A Glossary of Terms Used in Payments and Settlement Systems* (CPSS, BIS).



<sup>1</sup> The banking system is the central element of the payment system of Russia. Apart from the Bank of Russia and credit institutions, payment services are provided by the Russia's Federal Postal Service and some commercial organisations and individual unincorporated entrepreneurs. This survey analyses the payment systems of the Bank of Russia and credit institutions.

<sup>2</sup> When the euro area countries were about to switch to cash euros, the cash amount of their national currencies contracted significantly (from 5.5% to 3.5% of GDP on average). Experts evaluate this minimum amount of cash as the level reflecting the economy's need in cash for effecting payment transactions in this region. Subsequently, the amount of cash began to grow in the euro area and by the end of 2006 it had reached 6.5% of GDP (see Harry Leinonen. Payment habits and trends in the changing e-landscape 2010+. Bank of Finland, 2008).



Slovenia, Bulgaria, Latvia and Estonia, where the average amount of cash in circulation per capita was about \$500. In the countries with a higher average income per capita the average amount of cash in circulation per capita was several times as large as in Russia.

The state of the infrastructure designed for effecting cashless payments is a significant factor of the use of cash as a payment instrument. International practice shows that in the countries having more POS terminals<sup>1</sup> per capita the importance of cash as a payment instrument and a means of payment is declining.

#### Banknotes and coins in circulation

As of end of 2007, there were 4,124.3 billion rubles<sup>2</sup> of Bank of Russia notes and coins in circulation, of which 4,103.8 billion rubles were in banknotes (6.7 billion sheets) and 20.5 billion rubles in coins (35.2 billion pieces<sup>3</sup>), including coins made of precious metals. In the total amount of cash, banknotes accounted for 99.5% and coins — 0.5%, and in the total number of banknotes and coins, banknotes made up 16% and coins — 84%.

The number of Bank of Russia notes and coins, including coins made of precious metals, in 2007 increased by 1,057.9 billion rubles, or 34.5%, of which the number of banknotes increased by 1,054.0 billion rubles (0.6 billion sheets) and coins — by 3.9 billion rubles (5.0 billion pieces).

Growth in household money income and consumer prices for goods and services resulted in a change of the note structure of money supply in circulation. The share of 5,000-ruble notes increased 4.5 times in 2007 and as end 2007, stood at 21.0%. At the same time, the share of 1,000-ruble notes contracted over the year from 69.5% to 60.2%, 500-ruble notes — from 21.0% to 15.1%, 100-ruble notes — from 3.5% to 2.7% and 50-ruble notes — from 1.0% to 0.7%. The share of small-denomination notes (5-ruble and 10-ruble) remained unchanged from 2006 at 0.3%.

Growth in the number of vending machines and the development of other automated means of accepting low-value retail payments, such as parking meters, resulted in the increasing need for 10-ruble coins. In 2007, the share of 10-ruble coins in the structure of Bank of Russia coins in circulation expanded by 1.1 percentage points and as of end of 2007, stood at 17.0%. The share of 2-ruble coins remained unchanged at 14.6%. At the same time, the share of 5-ruble coins contracted from 33.2% to 33.0%, 1-ruble coins — from 19.7% to 19.3%, 50-kopeck coins — from 8.0% to 7.8% and 10-kopeck coins — from 7.0% to 6.6%. The aggregate share of small-denomination coins (1 kopeck and 5 kopecks) continued to shrink (from 1.7% to 1.5%).

#### Cash turnover structure

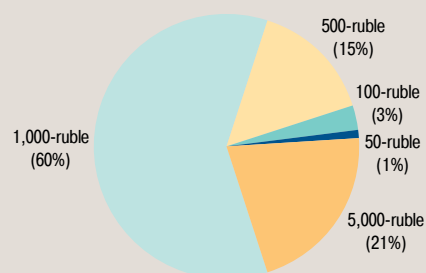
In 2007, the value of cash passed through the cash departments of banks increased by 11.2% to 34.4 trillion rubles. The average daily cash turnover expanded by 11.2 billion rubles to 114.4 billion rubles. The expansion of cash turnover was largely conditional on growth (by 22.4%) in nominal household money income and the rise in the prices of goods and services (by 11.9%).

<sup>1</sup> POS terminals installed at retail locations to effect card payments.

<sup>2</sup> Including till cash in the central bank and credit institutions.

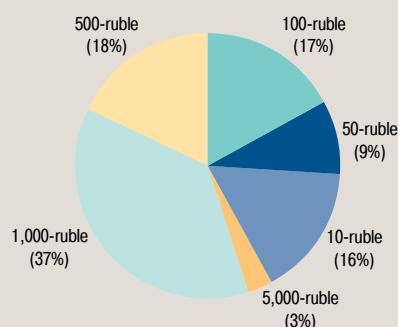
<sup>3</sup> Coins shown in pieces do not include coins made of precious metals.

**Chart 1.3.** Share of certain notes in the total value of banknotes, as of end of 2007\*



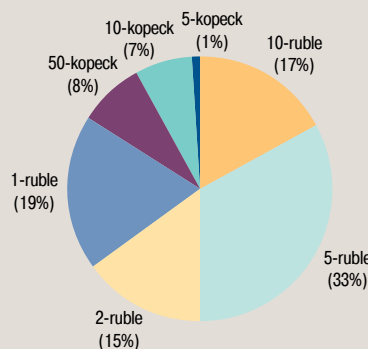
\* 5- and 10-ruble notes accounted for less than 1% of the total value of banknotes.

**Chart 1.4.** Share of certain notes in the total number of banknotes, as of end of 2007\*



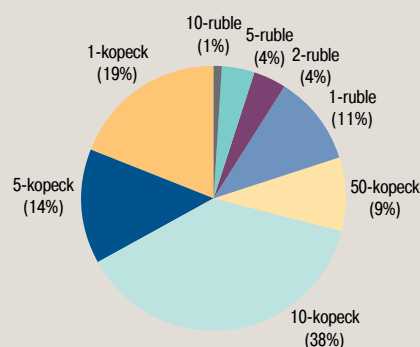
\* 5-ruble notes accounted for less than 1% of the total number of banknotes.

**Chart 1.5.** Share of certain coins in the total value of coins, as of end of 2007\*



\* 1-kopeck coins accounted for less than 1% of the total value of coins.

**Chart 1.6.** Share of certain coins in the total number of coins, as of end of 2007



**Table 1.1.** Main sources of cash receipts and purposes of cash withdrawals in 2007

Receipts	Value, trillion rubles	Share of total value, %	Growth rate, %	Withdrawals	Value, trillion rubles	Share of total value, %	Growth rate, %
Proceeds from sale of consumer goods	6.4	33.9	27.2	Wage and social benefit payments	3.0	19.4	13.8
Proceeds from provision of paid services	2.0	10.6	23.4	Payments for purchase of agricultural products	0.1	0.6	-8.4
Receipts of taxes, duties and insurance payments	0.3	1.6	28.1	Pension, allowance and insurance indemnity payments	0.3	1.9	-8.7
Receipts from individuals for money remittances	0.6	3.2	44.5	Money remittances received by individuals	0.2	1.3	88.8
Receipts from individuals for loan repayments	0.6	3.2	31.7	Loans extended to individuals	0.6	3.9	18.2
Receipts of funds to household savings and time deposit accounts	3.2	16.9	25.8	Withdrawals from household savings and time deposit accounts	4.6	29.7	9.3
Receipts from Federal Communications Agency organisations	0.3	1.6	13	Payments to Federal Communications Agency organisations	1.0	6.4	19.1
Receipts of funds to individual unincorporated entrepreneurs' accounts	1.6	8.4	11.2	Withdrawals from individual unincorporated entrepreneurs' accounts	0.6	3.9	17.5
Proceeds from government and other securities transactions	0.1	0.5	1.2	Income payments and payments for redemption and purchase of government and other securities	0.2	1.3	-56.6
Proceeds from sale of foreign currency to individuals	1.1	5.8	-6.3	Purchase of foreign currency from individuals	1.0	6.4	4.0
Receipts of funds to household accounts	1.4	7.4	70.6	Withdrawals from household accounts	2.2	14.2	-30.6
Proceeds from real estate sales	0.3	1.6	11.4				
Other receipts	1.0	5.3	1.8	Withdrawals for other purposes	1.7	11.0	-1.2

Most of the cash flow to the cash departments of banks was proceeds from sale of consumer goods (33.9%), receipts of funds to household savings and time deposit accounts (16.9%) and proceeds from provision of paid services (10.6%). Cash withdrawals from household savings and time deposit accounts accounted for 29.7% of total cash flow from the cash departments of banks, wage and social benefit payments accounted for 19.4% and withdrawals from household accounts for settlements unrelated to business activities accounted for 14.2%.

The most rapid year-on-year growth was registered in receipts of funds to household accounts, which increased by 70.6% in the period under review, receipts from individuals for money remittances (an increase of 44.5%), receipts from individuals for loan repayments (an increase of 31.7%), receipts from taxes, duties and insurance payments (an increase of 28.1%) and receipts of funds to household savings and time deposit accounts (an increase of 25.8%). There was a marked fall (by 6.3%) in receipts from sale of foreign currency to individuals.

In 2007, money remittances received by individuals grew by 88.8% and loans extended to individuals increased by 18.2%.

*Credit transfers are the most widespread cashless payment instrument in Russia*

### **Cashless payment instruments<sup>1</sup>**

#### *Credit transfers<sup>2</sup>*

**Credit transfer** — a payment order or possibly a sequence of payment orders made for the purpose of placing funds at the disposal of the beneficiary. Both the payment instructions and the funds described therein move from the bank of the payer/originator to the bank of the beneficiary's, possibly via several other banks as intermediaries and/or more than one credit transfer system. Source: *A Glossary of Terms Used in Payments and Settlement Systems*.

Credit transfers correspond to the most widespread forms of cashless payments. In 2007, customers of credit institutions (households and corporate entities other than credit institu-

<sup>1</sup> This survey classifies payment instruments according to the methodology of the Bank for International Settlements.

<sup>2</sup> Credit transfers in this case refer to payments made using payment orders, letters of credit and funds transfers conducted at the instruction of individuals without opening a bank account, including payments effected through funds transfer systems, rent and public utility service payments, tax payments, etc.

tions) and credit institutions issued over 1.7 billion orders<sup>1</sup> for credit transfers in rubles and foreign currency to the amount of nearly 654.3 trillion rubles. The average payment was 384,900 rubles. Credit transfers accounted for 95.4% of the total value and 80.0% of the total volume of payment orders received by credit institutions.

#### Direct debits<sup>2</sup>

Direct debits are not so common in the payment system of Russia. In 2007, credit institutions effected 81.5 million ruble and foreign currency payments totalling 30.5 trillion rubles, or 3.7% of the total volume and 4.5% of the total value of payment orders received by credit institutions. The average payment stood at 374,200 rubles.

#### Bank cards

In 2007, a total of 355.0 million cashless payments were effected in and outside Russia using bank cards. Thus, 16 out of 100 cashless payment transactions of the customers of credit institutions and credit institutions' own payments were made by bank cards. However, bank card payments accounted for a small part of all payments effected by credit institutions and their customers. In 2007, payment transactions by bank cards totalled 657.0 billion rubles, or 0.1% of the total value of cashless payments. The average bank card payment was 1,900 rubles. Although these figures are rather small, bank cards are the most actively developing payment instrument. A few years ago the volume and value of bank card transactions mostly increased due to growth in the number of bank cards, whereas lately bank cards have been used more intensively as a cashless payment instrument.

This tendency is largely conditional on the dynamic development of the infrastructure accepting bank cards and the use of new payment technologies connected with the widening of the range of banking services using bank cards (ATM and mobile payments, card-to-card transfers, social projects, etc.)

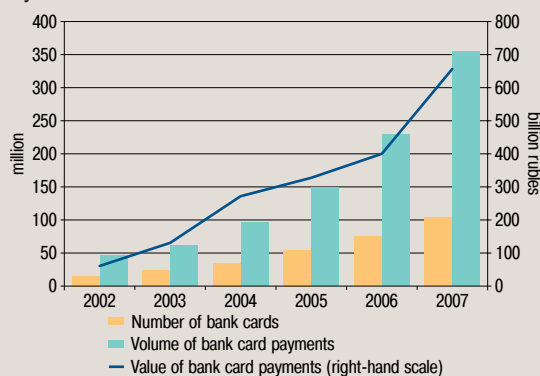
#### Cheques

Historically, cheques have not been widely used in the payment system of Russia. In 2007, credit institutions effected 0.3 million payments using cheques totalling 58.4 billion rubles and the share of these payments in the total value and volume of payment orders did not exceed several hundredths of a percent<sup>3</sup>.

**Direct debit** — preauthorised debit on the payer's bank account initiated by the payee. Source: *A Glossary of Terms Used in Payments and Settlement Systems*.

*Bank cards are the most actively developing payment instrument*

**Chart 1.7.** Number of bank cards and payments by bank cards



**Table 1.2.** Relative importance of cashless payment instruments in 2007

	Share of volume, %	Share of value, %	Average payment, thousand rubles
Credit transfers	79.97	95.44	384.9
Direct debits	3.74	4.45	374.2
Bank cards	16.29	0.10	1.9
Cheques	0.01	0.01	194.7

<sup>1</sup> Payment orders presented to a credit institution may be effected through the Bank of Russia or private payment systems.

<sup>2</sup> Direct debits in this case refer to payments effected using payment requests and collection orders.

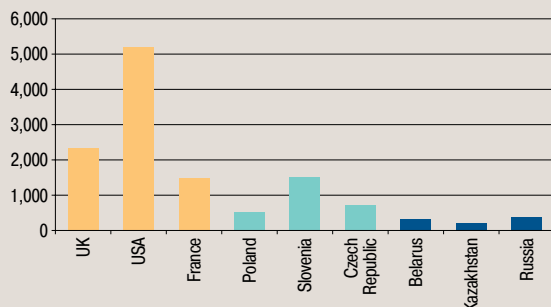
<sup>3</sup> Cheques are not in circulation in the payment system of the Bank of Russia.

## Bank card payments development

By 2008, more than a half of credit institutions in Russia issued and/or acquired bank cards (709 out of 1,136). Of these, 684 credit institutions issued bank cards and 609 acquired bank cards.

Over the year the number of bank cards issued for households and corporate entities increased more than 40% and as of end of 2007, reached 103.5 million. Thus, by the beginning of 2008 there were 728 bank cards per 1,000 inhabitants.

**Chart 1.8.** Number of bank cards per 1,000 inhabitants\*



\* As of end of 2005.

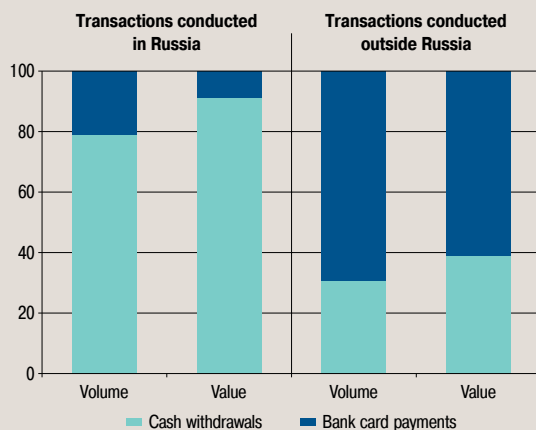
International statistical data show that at the end of 2005 Russia lagged far behind the economically developed countries in terms of the number of bank cards per 1,000 population. The United States exceeded Russia 14 times, United Kingdom — 6 times and France — 4 times. At the same time, compared to some European countries, such as the Czech Republic or Poland, the gap was not so wide. At the end of 2005, the Czech Republic registered 727 cards per 1,000 inhabitants, Poland — 534 and Russia — 381. As for CIS countries, Belarus had 326 cards per 1,000 population and Kazakhstan — 212.

From the end of 2005 to the end of 2007, the number of bank cards per 1,000 population in Russia almost doubled. If

rapid growth in the issue of bank cards continues, in the next few years Russia will have as many bank cards per 1,000 inhabitants as some European countries.

Such significant growth in the number of bank cards is largely the result of the increase in the number of debit cards issued by credit institutions under 'pay-roll projects'. In addition, the past few years have seen the favourable trend towards growth in the number of credit cards, stimulated by the expansion of consumer lending. By 2008, credit cards accounted for 8.6% of the total number of bank cards issued. As for the prepaid cards issued by credit institutions, their share in the total number of bank cards is small: as of end of 2007 it stood at 0.4%. Prepaid cards are mostly used to pay the mobile phone fees and for goods and services acquired through the Internet.

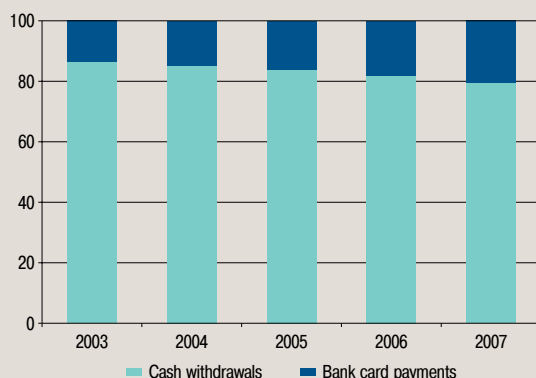
**Chart 1.9.** Bank card transactions in 2007 (%)



In 2007, a total of 1.6 billion transactions to the amount of 6.5 trillion rubles were conducted using bank cards in and outside Russia. This represents an increase of 35.7% in the volume of transactions and 47.4% in their value over the year. A total of 1.3 billion cash withdrawal transactions worth a total of 5.9 trillion rubles were made. This represents a growth of 31.2% in volume of transactions and 45.8% — in value. The average value of a cash withdrawal transaction in the period under review was 4,600 rubles.

In 2007, there was also significant growth in payments for goods and services by bank cards. These payments increased by 54.9% in volume and by 66.5% in value over the year and the volume of transactions reached 354.6 million and their value totalled 470.5 billion rubles. The average payment for goods and services was 1,300 rubles. Bank cards were also used to make customs payments. A total of 0.5 million payments of this kind were made over the year and they totalled 186.4 billion rubles in value. The average payment was 372,800 rubles.

**Chart 1.10.** Evolution of the structure of bank card transactions in Russia (in volume terms, %)



Despite growth in the number of bank cards and the volume of bank card transactions in and outside Russia, the ratio between the value of cashless payments and cash withdrawal transactions remains virtually unchanged. For many years cashless payments accounted for about 10% of total bank card transactions and cash withdrawals — 90%. Of all credit institutions that service bank cards, nearly 30% only give out cash without servicing retail locations that accept bank cards.

In 2007, the holders of bank cards in Russia most frequently used them to withdraw cash (cash withdrawals ac-

counted for 79.1% of the total volume of transactions and 94.2% of their value), whereas in other countries bank card payments exceeded cash withdrawals (69.2% and 30.8% of the volume of transactions and 60.9% and 39.1% of their value, respectively).

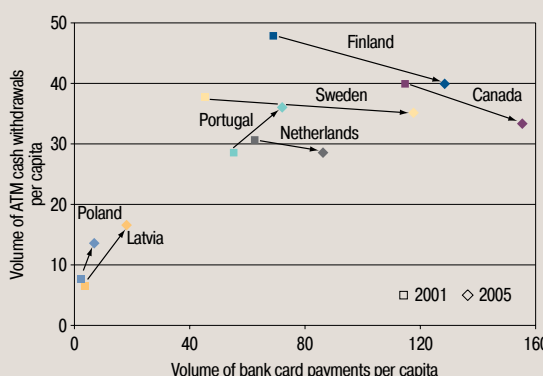
The factors that contain the expansion of bank card payments are as follows:

- the inadequate infrastructure accepting bank cards does not allow card holders to use cards in many popular shopping places, such as markets and small shops;
- payment networks are not always compatible at the retail level and the acquiring market is too fragmented. In addition, retailers tend to underestimate the benefits of servicing card holders, such as the attraction of more customers, reduction of costs connected with cash processing, and so forth;
- the holders of bank cards issued by credit institutions under 'pay-roll projects' prefer to withdraw cash from ATMs and cash dispensers. This is largely conditional on low interest accrued on the balances of the card holders' accounts and financial illiteracy (there is not enough concrete and comprehensible information about the benefits of using bank cards).

At the same time, although cash withdrawals exceed bank card payments, recent years have seen the favourable trend towards wider use of bank cards in paying for goods and services. The share of cashless payments in the total volume of bank card transactions increased from 13.9% in 2003 to 20.9% in 2007.

Experts claim that the volume of ATM cash withdrawals declines when the volume of per capita bank card payments reaches 70–80 transactions a year<sup>1</sup>.

**Chart 1.11. ATM cash withdrawals and bank card payments per capita\* (2001–2005)**



\* In 2007, there were approximately 3 bank card payments and about 9 cash withdrawals using bank cards per capita in Russia.

## General characteristics of cashless payments effected through the banking system

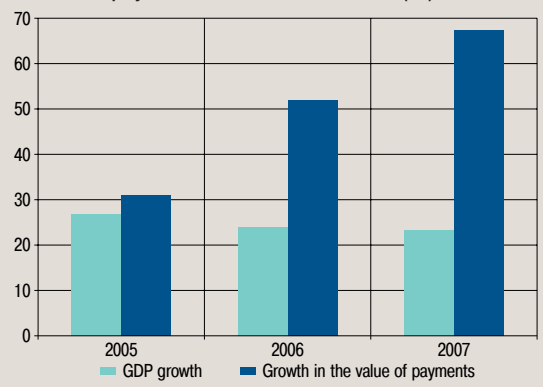
In 2007, a total of 2.5 billion ruble payments to the amount of 746.1 trillion rubles were effected through the Russian banking system institutions that provide payment services<sup>2</sup>. On average 9.9 million payment transactions to the amount of 3.0 trillion rubles were conducted daily. The value of payments effected through the banking system of Russia was such that the equivalent of annual GDP turned over in just 11 days<sup>3</sup>. Economic growth in Russia was accompanied by the expansion of the value of cashless payments effected through the banking system of Russia. At the same time, growth in the value of cashless payments exceeded by far the growth of nominal GDP. While in 2005 there were 13.6 rubles of cashless payments per one ruble of GDP, in 2007 there were 22.6 rubles.

The average payment passed through the banking system of Russia increased by 15.6% to 303,800 rubles in 2007 from 262,800 rubles in 2005.

The payment system of the Bank of Russia plays a major part in the payment system of Russia. In 2007, it accounted for 59.7% of the total value and 34.0% of the total volume of ruble payments effected through the banking system of Russia. These figures remained relatively stable throughout the year: there was

*Growth in the value of cashless payments far surpassed nominal GDP growth*

**Chart 1.12. Growth in the nominal GDP and in the payments value in 2005–2007 (%)**



<sup>1</sup> Harry Leinonen. Payment habits and trends in the changing e-landscape 2010+. Bank of Finland, 2008.

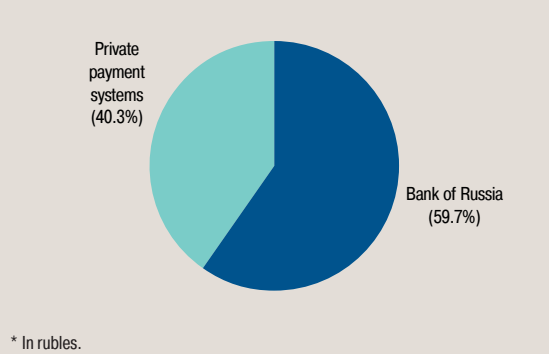
<sup>2</sup> Bank of Russia branches, credit institutions and their branches, additional offices, operations offices, cash and credit offices and cash operations departments outside cash settlement centers.

<sup>3</sup> In the 15 leading EU countries this indicator is eight days on average (see Harry Leinonen. Payment habits and trends in the changing e-landscape 2010+. Bank of Finland, 2008).

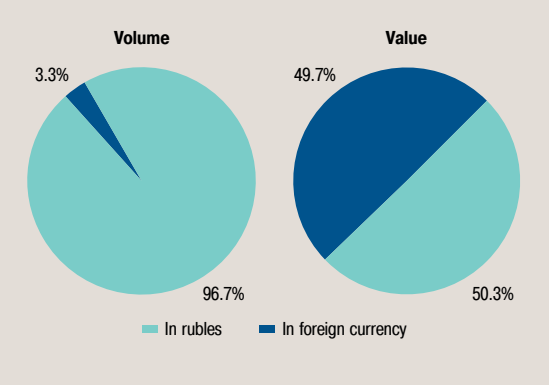


The payment system of the Bank of Russia accounted for nearly 60% of the total value of payments passed through the payment system of Russia

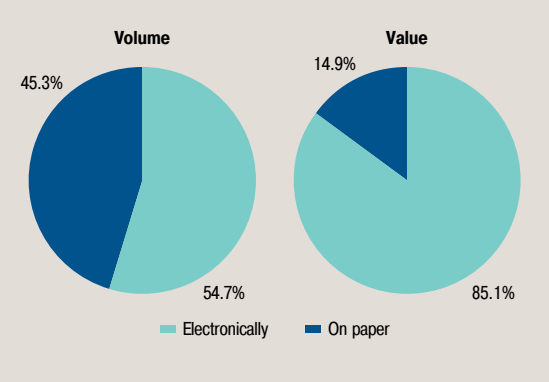
**Chart 1.13.** Payments passed through the payment system of the Bank of Russia and private payment systems in 2007 (in value terms)\*



**Chart 1.14.** Payments passed through the private payment systems in 2007 (by currency)



**Chart 1.15.** Payments passed through the private payment systems in 2007 (by method)



a slight increase in their relative value (from 54.7% in the 4<sup>th</sup> quarter of 2006 to 55.5% in the 4<sup>th</sup> quarter of 2007) and a minor contraction in their relative volume (from 35.4% in 2006 Q4 to 34.9% in 2007 Q4). Each day 3.3 million payments to the amount of 1.8 trillion rubles passed through the payment system of the Bank of Russia, with the average payment being 534,600 rubles.

In 2007, credit institutions processed on average 6.5 million payments to the amount of 1.2 trillion rubles a day. So the private payment systems in 2007 processed about two-thirds of the total volume of cashless payments passed through the payment system of Russia, most of them being retail payments. The average payment in the private payment systems was 185,200 rubles, almost 3 times smaller than in the payment system of the Bank of Russia.

Almost a half of the total value of payment transactions conducted through credit institutions in 2007 were in foreign currency. At the same time, these transactions accounted for just a little over 3% of the total volume of payments passed through the private payment systems.

Credit institutions processed on average 200,000 payments in foreign currency to the amount of 1.2 trillion rubles a day during that period. The value of a foreign currency payment, as a rule, was considerably larger than the value of a ruble payment. In 2007, the average foreign currency payment was 5.3 million rubles, or 10 times the average ruble payment passed through the payment system of the Bank of Russia and 29 times the average ruble payment passed through the private payment systems.

#### **Methods of effecting payments through credit institutions**

The majority of payments passed through credit institutions are effected electronically. In 2007, these payments numbered 0.9 billion and amounted to 508.4 trillion rubles. Paper-based payments numbered 0.8 billion and amounted to 89 trillion rubles in that period.

Thus, in 2007 electronic payments accounted for 54.7% of the total volume and 85.1% of the total value of payments passed through the private payment systems; paper-based payments accounted for 45.3% and 14.9%, respectively.

### **Accessibility of payment services provided by the banking system**

#### **Banking system payment infrastructure**

In 2007, the development of the payment system of Russia was characterised by the increased accessibility of payment services. One of the factors behind this expansion was the development of the banking system infrastructure that provides payment services.

The number of banking system institutions that provide payment services increased by 10.2% over the year and as of end of 2007, stood at 41,081. As a result, by the end of 2007 there were 289 banking system institutions per million population.

The number of operating credit institutions in Russia decreased by 53 in 2007 and as of end of 2007, stood at 1,136.

The number of credit institutions fell almost in all federal districts, but most of the liquidated credit institutions (39) were in Moscow and the Moscow Region.

In the period under review the network of branches and internal divisions of credit institutions continued to expand. Over the year the number of branches of operating credit institutions rose from 3,281 to 3,455 and the number of internal divisions increased by 12.0% and as of end of 2007, stood at 35,708. This growth was due to the 26.5% increase in the number of additional offices and the opening of a new kind of internal division providing payment services — the operations office. By the end of 2007, the number of operations offices had reached 497.

While the number of divisions of credit institutions increased, the number of Bank of Russia branches decreased by 141 cash settlement centers (a fall of 15.3%) and by the end of the year stood at 782. This was the result of the activities for optimisation of cash settlement network of the Bank of Russia.

International statistical data indicate that at the end of 2005 Russia in terms of accessibility of payment services to the public (245 banking system institutions per million inhabitants) was comparable with such countries as United Kingdom (236), Japan (275), Slovakia (217) and the Czech Republic (198) and far ahead of CIS countries. Kazakhstan had 48 banking system institutions per million population and Belarus had 93. At the same time, Russia lagged behind some countries of Western and Eastern Europe in terms of the density of the banking system institutions network. Switzerland, for example, had 409 banking system institutions per million inhabitants, 1.7 times more than Russia, and Poland had 358, 1.5 times more than Russia.

### **The development of devices used in effecting cashless payments**

One of the ways to extend the accessibility of payment services to the public is to ensure that credit institutions enable the holders of bank cards to pay rent and utility charges, mobile phone fees, etc. via ATMs. Compared to the end of 2006, the number of ATMs increased almost 50% and as of end of 2007, stood at 43,857. There were 308 ATMs per million inhabitants at the end of 2007 (208 in 2006). The dynamic expansion of this segment of the market guarantees the provision of banking services in the areas where there are no divisions of credit institutions.

At the end of 2005, Russia lagged far behind the economically developed countries in terms of the number of POS terminals per million population (976). Sweden, for instance, had 19,651 POS terminals per million inhabitants, or 20 times more than Russia; the United States had 16,963 POS terminals per million inhabitants, or 18 times more than Russia, and Germany had 6,906, or 7 times more than Russia. However, if we compare Russia with some other countries in terms of the number of POS terminals per million population, the difference is not so big. Slovakia has 4 times as many POS terminals per million inhabitants, Bulgaria — twice as many and Romania — 1.3 times as many. As for CIS countries, Belarus had 772 POS terminals per million population and Kazakhstan — 588.

Although Russia remains behind other countries in terms of the number of POS terminals per million population, there have been significant changes in this segment in recent years. In the past two years (from the end of 2005 to the end of 2007) the number of POS terminals per million inhabitants in Russia increased by 70% and at the beginning of 2008 stood at 1,684.

The number of banking system institutions providing payment services increased from 261 per million inhabitants in 2006 to 289 in 2007

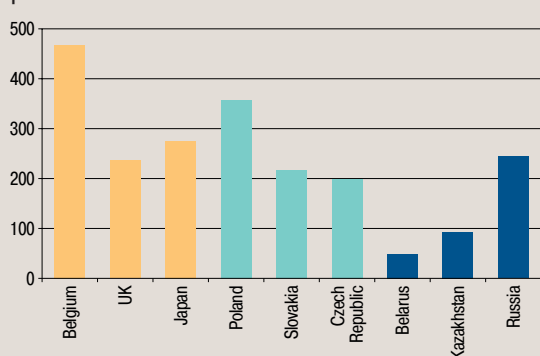
**Table 1.3.** Banking system infrastructure providing payment services

	1.01.2007	1.01.2008	Growth, %
Total banking system institutions	37,281	41,081	10.2
Of which:			
– Bank of Russia branches*	923	782	–15.3
– divisions of credit institutions**	36,358	40,299	10.8
Banking system institutions per 1 mln inhabitants	261	289	10.7

\* Main cash settlement centres, cash settlement centers, operations departments and sections.

\*\* Credit institutions and their branches, additional offices, cash and credit offices, operations offices and cash operations departments outside cash settlement centers.

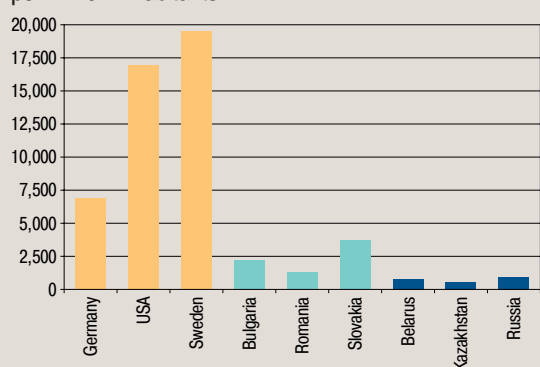
**Chart 1.16.** Number of banking system institutions per million inhabitants\*



\* Excluding post offices, as of end of 2005.

At the end of 2007, Russia had 308 ATMs, that could be used for making payments by bank cards, per million inhabitants

**Chart 1.17.** Number of POS terminals per million inhabitants\*



\* As of end of 2005.

This growth was due to the rapid increase in the number of POS terminals installed at retail locations. In 2007, their number rose by 39.6% to almost 240,000 as of end of 2007.

### Transaction accounts of the customers of credit institutions

Payment services have become more accessible in Russia also due to growth in the number of accounts that can be used for effecting payments<sup>1</sup>. Compared to the beginning of 2007, the number of transaction accounts opened with credit institutions for households and corporate entities other than credit institutions in rubles and foreign currency increased by 14.0% and as of end of 2007, reached 434.7 million<sup>2</sup>. At the same time, the number of foreign currency accounts increased by 7.0% and their share in total number of accounts opened contracted from 3.2% to 3.0%.

The ratio between the number of household and corporate accounts remained stable in 2007: accounts of households stood at 98.4% and accounts of corporate entities — at 1.6%.

More than 70% of all transaction accounts opened for households were savings and time deposit accounts, their number increased by 4.3% in 2007. At the same time, the number of savings and time deposit accounts in rubles grew by 4.5% to 300.2 million as end of 2007, whereas the number of foreign currency savings and time deposit accounts fell by 2.1%, from 7.7 million to 7.5 million.

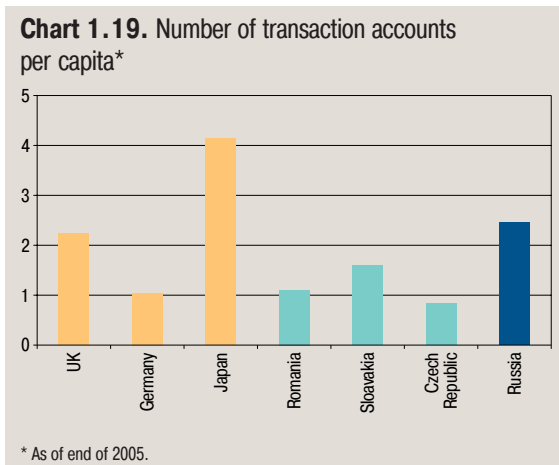
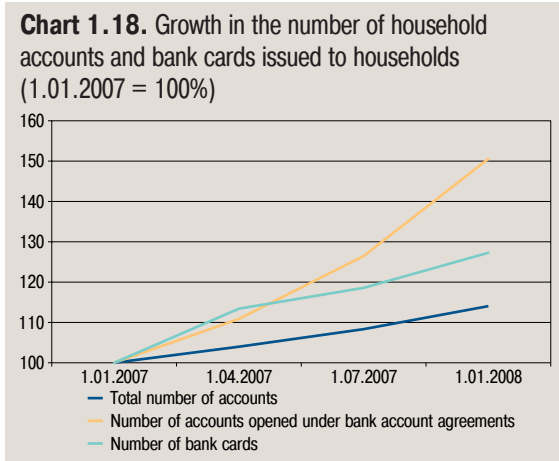
Almost 30% of household accounts with credit institutions were opened under bank account agreements. In 2007, their number increased from 79.7 million to 120.1 million, or by 50.6%. This is mostly due to significant growth in the number of household accounts opened for effecting bank card transactions. In 2007, the number of bank cards issued by credit institutions for households rose by 27.3% and as of end of 2007, reached 103.3 million.

In terms of the number of transaction accounts per capita (2.5) at the end of 2005 Russia was at the level of such European countries<sup>3</sup> as United Kingdom (2.2), Greece (2.5) and Finland (2.4) and outnumbered Slovakia (1.6), Romania (1.1), Germany (1.0) and the Czech Republic (0.8). At the same time, Russia lagged behind Japan, which had 4.1 transaction accounts per capita at the end of 2005.

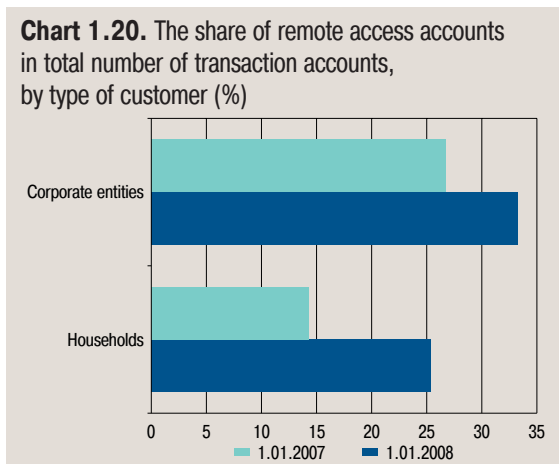
The use of new advanced payment methods, such as Internet and mobile payments, continued to expand in 2007. Since the beginning of that year the number of remote access accounts opened with credit institutions for households and corporate entities other than credit institutions increased by almost 90% and as of end of 2007, their share in total accounts through which payments were effected since the beginning of the year rose from 14.7% to 25.6%.

The share of remote access accounts opened for households in total number of household accounts through which payments were effected since the beginning of the year reached 25.3% (as against 14.2% as of end of 2006). In 2007, bank cards and

*Increase in the number of transaction accounts is primarily connected with the expansion of the bank cards issue*



*The number of remote access accounts increased rapidly*



<sup>1</sup> Experts have estimated that several years ago more than half of Russia's population did not use banking services (see *The Outlook for the Development of Card Payment System in Russia: General Provisions*. 2005, Visa International Service Association).

<sup>2</sup> Of these, 25.8% were accounts from which funds were written off in 2007.

<sup>3</sup> Source: Bank for International Settlements Red Book ([www.bis.org/publ/cpss78.pdf](http://www.bis.org/publ/cpss78.pdf)) and European Central Bank Blue Book ([www.ecb.int/pub/pdf/other/bluebook200612addenden.pdf](http://www.ecb.int/pub/pdf/other/bluebook200612addenden.pdf)).

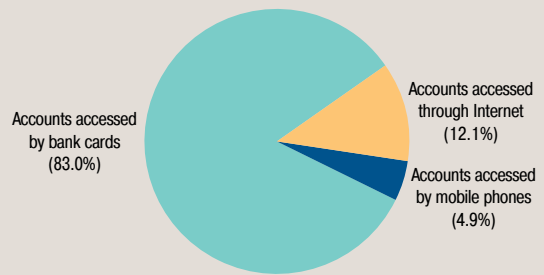


the Internet were used most actively by public to manage funds in their accounts. The number of accounts accessed by bank cards doubled and the number of accounts managed through the Internet increased by 40% over the year. Mobile phones were increasingly used in managing funds. The number of household accounts accessed by mobile phones increased 2.2 times in 2007.

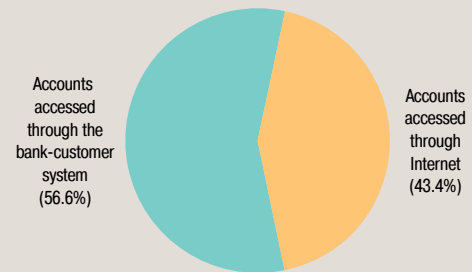
As of end of 2007, remote access accounts opened for corporate entities accounted for 33.2% of total number of corporate accounts through which payments were effected since the beginning of the year (as against 26.7% as of end of 2006). Of these, 56.6% were accessed through the automated bank-customer system and 43.4% were managed by corporate entities through the website of the credit institution providing Internet banking services.

Despite the growth in the share of remote access accounts opened with credit institutions in total number of accounts through which payments were effected since the beginning of the year, the public and corporate entities did not use advanced payment methods for managing funds in their accounts actively enough. This results from financial illiteracy of the population and the lack of concrete and comprehensible information about the benefits of using these banking services.

**Chart 1.21.** The number of remote access accounts opened for households, as of end of 2007 (by access mode)



**Chart 1.22.** The number of remote access accounts opened for corporate entities, as of end of 2007 (by access mode)



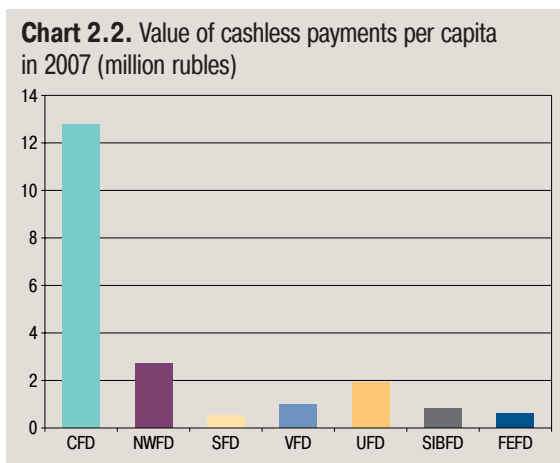
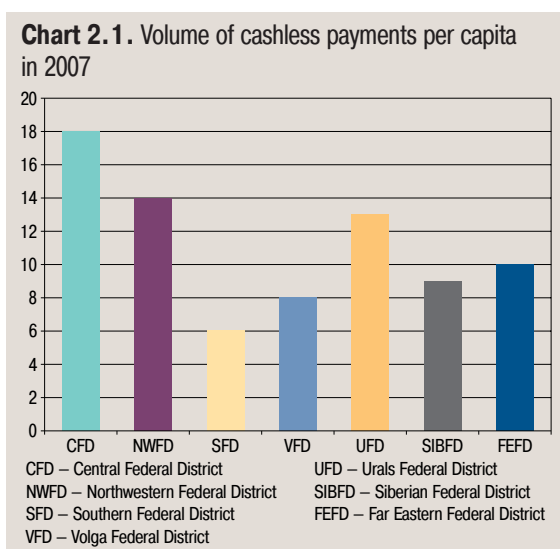


**Chapter 2. PAYMENT SERVICES PROVIDED  
BY CREDIT INSTITUTIONS  
IN FEDERAL DISTRICTS**

Significant differences in the economic development of Russian regions had an influence on the operation parameters of the private payment systems. The federal districts differ considerably in terms of the volume and value of payments, payment instruments used, the accessibility of payment services provided by credit institutions, the concentration level in the regional markets of payment services, and so forth. The analysis of these differences provides additional insights into the processes in the Russian payment system and the factors that affect its development.

## General characteristics of cashless payments effected through private payment systems

*Central and Volga Federal Districts accounted for more than half of all payments passed through private payment systems*



In 2007, a total of 1.7 billion ruble and foreign currency payments to the amount of 597.4 trillion rubles were effected through the private payment systems. The Central Federal District accounted for the largest share of these payments in both volume and value — 40.0% and 79.8%, respectively (Moscow and the Moscow Region accounted for 31.4% of the volume and 77.7% of the value). Next in terms of the volume of payments was the Volga Federal District (15.1%) and in terms of value — the Northwestern Federal District (6.1%). At the bottom of the list in terms of volume and value was the Far Eastern Federal District (4.1% and 0.7%, respectively).

In per capita terms, there were 12 cashless payments in rubles and foreign currency<sup>1</sup> effected through the private payment systems to the amount of 4.2 million rubles in Russia as a whole in 2007. The payment systems in the federal districts are characterised by significant differences in these indicators. In the Central Federal District, for example, there were 18 payments to the amount of 12.8 million rubles per capita (in Moscow and the Moscow Region — 31 payments to the amount of 27.1 million rubles), in the Northwestern Federal District there were 14 payments to the amount of 2.7 million rubles and in the Urals Federal District — 13 payments to the amount of 1.9 million rubles. In the Southern Federal District there were just 6 payments to the amount of 0.5 million rubles per capita.

An average of 6.7 million ruble and foreign currency payments to the amount of 2.4 trillion rubles passed through the private payment systems daily in 2007, with the average value of payment being 358,200 rubles. The payments of the largest value passed through the payment system of the Central Federal District, where the average payment was 710,000 rubles (in Moscow and the Moscow Region the average payment was 882,000 rubles). The average payments in the payment systems of other federal districts were considerably smaller, varying from 58,000 rubles in the Far Eastern Federal District to 188,000 rubles in the Northwestern Federal District.

### Funds turnover in private payment systems

The turnover of funds in correspondent accounts with credit institutions is an important characteristic of the effectiveness of the payment system, reflecting the intensity of their use. In 2007, the highest turnover ratios were registered in the Northwestern

<sup>1</sup> Payments in per capita terms have been calculated on the basis of the total population and include payments effected by both households and corporate entities.

Federal District (1.9) and the Urals Federal District (1.8). The lowest funds turnover in correspondent accounts was typical of the payment systems of the Far Eastern Federal District (0.4), Siberian Federal District (0.7) and Central Federal District (0.6).

### Cashless payment instruments

#### Credit transfers

In 2007, credit transfers were the principal cashless payment instrument in terms of the volume and value of transactions conducted in the payment systems of all federal districts. They ranged from 73.0% of the total volume of payments of the customers of credit institutions in the Urals Federal District to 82.5% — in the Central Federal District, while their share in the total value of payments varied slightly from 94.8% in the Central Federal District to 99.0% in the Volga Federal District. The different scales of the economies of the federal districts determined significant differences in the average value of a credit transfer. While in the Central Federal District it amounted to 700,500 rubles, in the Southern Federal District it was just 78,800 rubles. The Central Federal District also topped the list in terms of the volume of credit transfers per capita. In 2007, there were 20 credit transfers per capita to the amount of 14.4 million rubles in that federal district, whereas in the Southern Federal District there were 7 credit transfers per capita to the amount of 0.5 million rubles.

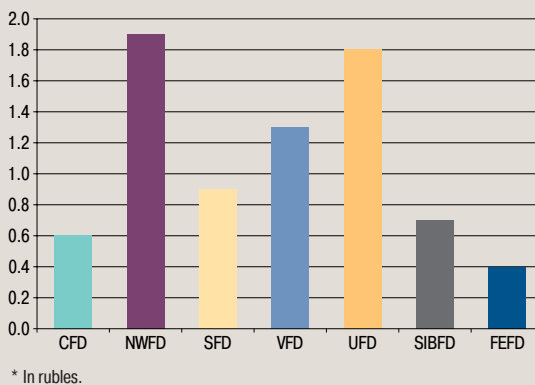
#### Direct debits

Direct debits play a far less significant role in terms of the volume and value of transactions conducted in the payment systems of all federal districts. In 2007, their share in the total volume of payment instruments ranged from 1.8% in the Central Federal District to 8.9% in the Southern Federal District, and their share in the total value of payment instruments ranged from 5.1% in the Central Federal District to 0.9% in the Far Eastern and Volga Federal Districts. The average value of a direct debit differed significantly among federal districts. While in the Central Federal District the average direct debit stood at 1,691,600 rubles, in the Southern Federal District it was just 16,200 rubles. The Northwestern Federal District leads all other federal districts in terms of the volume of direct debits per capita. In 2007, there was 1 direct debit to the amount of 33,100 rubles per capita in that federal district, whereas in the Far Eastern Federal District there were 3 such payments to the amount of 7,400 rubles per 10 inhabitants.

#### Bank cards

Bank card payments which are mostly related to retail turnover of goods and services, continued to account for a small part of the total value of payments of the customers of credit institutions<sup>1</sup> in 2007. In most of the federal districts their share did not exceed 0.1%. Only in the Northwestern Federal District their share stood at 0.2% and in the Far Eastern Federal District — at 0.7%. At the same time, bank cards accounted for a significantly larger portion of the total volume of payments. In 2007, 21 out of 100 payments of the customers of credit institutions in the Urals Federal District were made by bank cards, 19 — in the Siberian and Far Eastern Federal Districts, 18 — in the

**Chart 2.3.** Ratio of funds turnover in correspondent accounts with credit institutions in 2007\*



<sup>1</sup> Transactions effected through credit institutions in one federal district may mediate the payment for goods and services in this or another federal district.

**Table 2.1.** The use of cashless payment instruments by customers of credit institutions in 2007\*

	CFD	NWFD	SFD	VFD	UFD	SIBFD	FEFD
<b>Volume of transactions (million)</b>	<b>928.5</b>	<b>287.0</b>	<b>179.5</b>	<b>331.0</b>	<b>163.5</b>	<b>213.1</b>	<b>77.6</b>
Credit transfers	766.4	229.2	147.6	257.5	119.3	162.7	60.8
Direct debits	17.0	14.7	16.0	12.7	9.2	10.0	1.9
Bank cards	145.0	43.2	15.9	60.8	35.0	40.3	14.9
Cheques	0.1	0.0	0.1	0.0	0.0	0.0	0.0
<b>Value of transactions (billion rubles)</b>	<b>566,020.7</b>	<b>33,637.0</b>	<b>11,921.5</b>	<b>29,186.5</b>	<b>22,518.0</b>	<b>16,963.1</b>	<b>5,313.0</b>
Credit transfers	536,805.9	33,109.9	11,635.1	28,889.9	21,979.8	16,667.3	5,227.1
Direct debits	28,746.3	448.1	259.5	265.0	498.5	263.8	48.2
Bank cards	442.3	78.8	12.5	31.4	32.8	24.2	35.0
Cheques	26.2	0.2	14.4	0.2	6.9	7.7	2.8
<b>Volume of cashless payment instruments (%)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Credit transfers	82.5	79.8	82.2	77.8	73.0	76.4	78.3
Direct debits	1.8	5.1	8.9	3.8	5.6	4.7	2.4
Bank cards	15.6	15.1	8.9	18.4	21.4	18.9	19.2
Cheques	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Value of cashless payment instruments (%)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Credit transfers	94.8	98.4	97.6	99.0	97.6	98.3	98.4
Direct debits	5.1	1.3	2.2	0.9	2.2	1.6	0.9
Bank cards	0.1	0.2	0.1	0.1	0.1	0.1	0.7
Cheques	0.0	0.0	0.1	0.0	0.0	0.0	0.1
<b>Volume of transactions per capita</b>	<b>24.9</b>	<b>21.2</b>	<b>7.9</b>	<b>10.9</b>	<b>13.4</b>	<b>10.9</b>	<b>11.9</b>
Credit transfers	20.6	16.9	6.5	8.5	9.8	8.3	9.3
Direct debits	0.5	1.1	0.7	0.4	0.8	0.5	0.3
Bank cards	3.9	3.2	0.7	2.0	2.9	2.1	2.3
Cheques	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Value of transactions per capita (thousand rubles)</b>	<b>15,208.2</b>	<b>2,482.4</b>	<b>523.4</b>	<b>961.8</b>	<b>1,841.1</b>	<b>865.9</b>	<b>816.3</b>
Credit transfers	14,423.3	2,443.5	510.8	952.0	1,797.1	850.8	803.1
Direct debits	772.4	33.1	11.4	8.7	40.8	13.5	7.4
Bank cards	11.9	5.8	0.5	1.0	2.7	1.2	5.4
Cheques	0.7	0.0	0.6	0.0	0.6	0.4	0.4
<b>Average transaction value (thousand rubles)</b>	<b>609.6</b>	<b>117.2</b>	<b>66.4</b>	<b>88.2</b>	<b>137.7</b>	<b>79.6</b>	<b>68.5</b>
Credit transfers	700.5	144.5	78.8	112.2	184.2	102.5	86.0
Direct debits	1,691.6	30.6	16.2	20.8	54.3	26.3	25.5
Bank cards	3.1	1.8	0.8	0.5	0.9	0.6	2.3
Cheques	177.4	21.5	178.9	25.6	167.6	205.7	126.7
<b>Memo item: population (million)</b>	<b>37.2</b>	<b>13.5</b>	<b>22.8</b>	<b>30.3</b>	<b>12.2</b>	<b>19.6</b>	<b>6.5</b>

\* For transactions in rubles and foreign currency.

Volga Federal District, 16 — in the Central Federal District and 15 — in the Northwestern Federal District. However, the Southern Federal District lagged far behind them in terms of the use of bank cards in effecting payments by the customers of credit institutions. Bank card payments accounted for just about 9% of the total volume of cashless payments in that federal district. The average bank card payment in Russia in 2007 was 1,900 rubles. In the Central Federal District it was almost double that amount (3,100 rubles), in the Far Eastern Federal District it was 2,300 rubles and in the Northwestern Federal District — 1,800 rubles. In other federal districts the average bank card payment varied between 500 rubles and 900 rubles.

The federal districts also differ substantially in terms of the volume and value of bank card payments per capita. In 2007, in the Central Federal District there were 39 bank card payments to the amount of 119,000 rubles per 10 inhabitants and in the Northwestern Federal District — 32 transactions to the amount

of 58,000 rubles. At the bottom of the list was the Southern Federal District with 7 bank card payments to the amount of 5,000 rubles per 10 inhabitants.

### Cheques

Cheques have not been widely used for making cashless payments in Russia as a whole or in individual federal districts. Their share in total cashless payment instruments in all federal districts was not larger than several tenths of a percent.

Inset 2

## Bank card market development

Almost 55% of all bank cards in Russia are issued by credit institutions located in the Central Federal District, 46.9% are issued by credit institutions based in Moscow and the Moscow Region. In 2007, the number of cards issued by credit institutions located in Moscow and the Moscow Region increased by 58.9%. This is largely due to the fact that many credit institutions located in Moscow and the Moscow Region issue cards not only for the residents of this region, but also for the customers in other regions. This applies, for instance, to the issue of credit cards under consumer lending and debit cards — under ‘pay-roll projects’. At the same time, there is a favourable trend towards growth in the number of bank cards in other federal districts. Overall, the number of bank cards issued by credit institutions in 2007 increased by nearly 30% on average.

The trend towards wider use of bank cards as a cashless payment instrument noted in Chapter 1 was apparent in all federal districts. In the Urals Federal District, for example, the share of payments by cards in total volume of card transactions expanded by 4.2 percentage points; in other federal districts, including Moscow and the Moscow Region, it increased by about 2 percentage points. This growth is largely due to a wider use of ATMs to pay for the mobile phone services, the services of Internet and cable television providers, fines for violating traffic rules, rent and utility charges, and so forth.

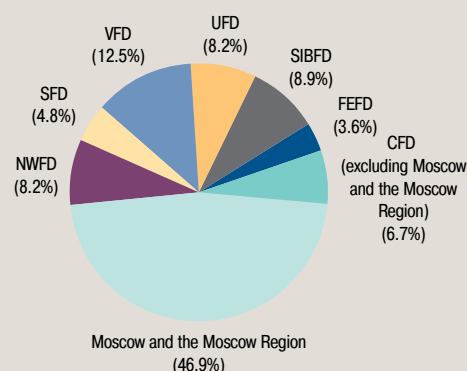
The volume of cashless payments at ATMs increased rapidly: in the Far Eastern Federal District it increased more than 3 times, in the Northwestern Federal District — 1.4 times, in the Central Federal District — 1.5 times and in other federal districts it grew 2 times and more. At the same time, the volume of payments at ATMs in the Central Federal District (excluding Moscow and the Moscow Region) increased 1.7 times.

Growth in the volume of payments at ATMs was accompanied by the increase in the volume of payments at POS terminals installed at retail locations: in 2007, in most of the federal districts, including the Central Federal District without Moscow and the Moscow Region, the growth accounted for more than 50%; the Volga Federal District registered an increase of 30%, Siberian Federal District — 40% and the Far Eastern Federal District — about 16%.

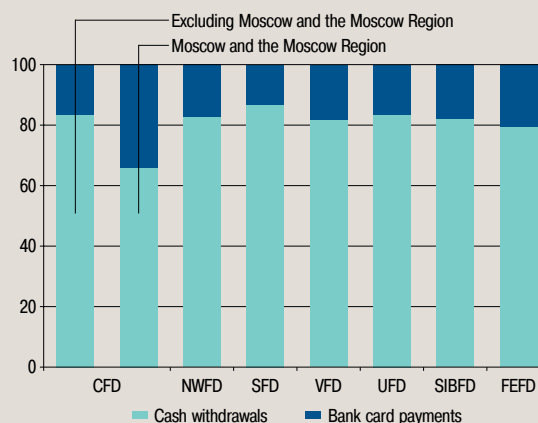
The share of payments at ATMs in total bank card payments is quite large and in certain federal districts it exceeds the share of POS terminal transactions (the Central Federal District, excluding Moscow and the Moscow Region, and the Southern Federal District). In 2007, the share of payments at ATMs in total bank card payments increased significantly year on year in the Far Eastern Federal District (by 17 percentage points), Volga Federal District (by 10 percentage points) and Urals Federal District (by 7 percentage points).

The share of payments by bank cards in the Internet shops accounted for no more than 2% of total bank card payments in all federal districts in 2007.

**Chart 2.4.** Number of bank cards by federal district, as of end of 2007



**Chart 2.5.** Bank card transactions in federal districts in 2007 (in volume terms, %)



**Table 2.2.** Bank card payments in 2007 by type of device (in volume terms, %)

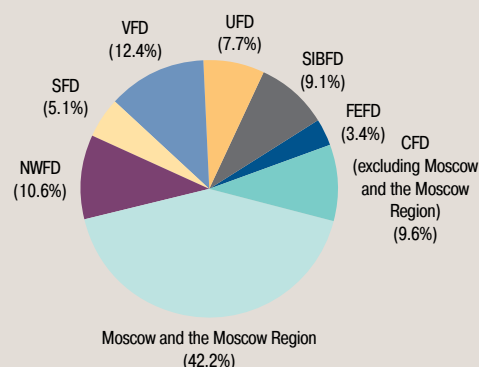
	ATMs	POS terminals	Other*
Central Federal District (excluding Moscow and the Moscow Region)	65.6	34.4	0.0
Moscow and the Moscow Region	31.7	65.3	3.0
Northwestern Federal District	37.2	62.0	0.8
Southern Federal District	58.5	41.5	0.0
Volga Federal District	45.4	52.7	1.9
Urals Federal District	46.6	53.3	0.1
Siberian Federal District	38.2	61.3	0.5
Far Eastern Federal District	30.6	69.4	0.0

\* Payments via imprinters and Internet.

Growth in the value of bank card payments for goods and services in the federal districts is inseparably linked with the development of corresponding payment infrastructure.

By 2008, the Central Federal District accounted for more than 50% of the infrastructure used for the payment for goods and services (POS terminals and imprinters installed at retail locations and ATMs), of which over 40% was in Moscow and the Moscow Region. At the same time, all other federal districts, including the Central Federal District without Moscow and the Moscow Region, registered significant growth in the number of ATMs that could be used for the payment for services and POS terminals. In the Far Eastern, Southern and Volga Federal Districts the number of ATMs increased by nearly 60% year on year, in the Northwestern Federal District — by 30% and in other federal districts — by about 50%. The number of POS terminals rose by about 35—40% in most of the federal districts; in the Siberian and Far Eastern Federal Districts it increased by almost 20%.

**Chart 2.6.** Infrastructure for bank card payments for goods and services by federal district, as of end of 2007



## Accessibility of payment services provided by credit institutions

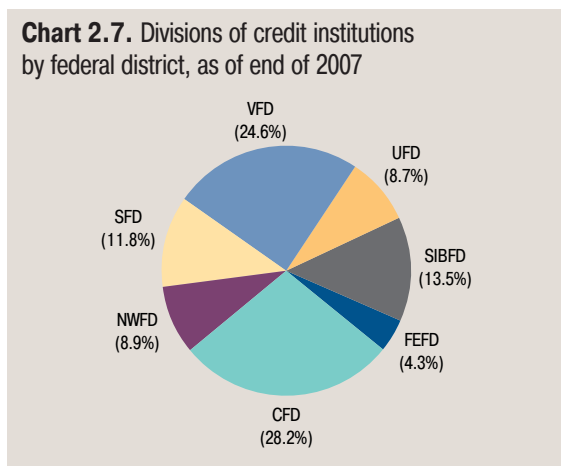
### Banking sector payment infrastructure

The features of the payment systems functioning in the federal districts are largely determined by the existing banking infrastructure.

By 2008, over 50% of all divisions of credit institutions providing payment services were in the Volga Federal District (24.6%) and the Central Federal District (28.2%), including Moscow and the Moscow Region (15.6%). This is largely conditional on the great number of internal divisions located in these regions. The Volga Federal District, for example, stands out for having a large number of branches of credit institutions (21.6% of the total). The most rapidly expanding divisions of credit institutions in this federal district are operations offices, cash and credit offices and cash departments outside cash settlement centers. By the end of 2007, more than one-third of the total number of these divisions operated in the Volga Federal District. Moscow and the Moscow Region have a large number of head offices (50.0% of the total) and additional offices (18.8%) of credit institutions.

*Central and Volga Federal Districts accounted for more than half of all divisions of credit institutions that provide payment services*

**Chart 2.7.** Divisions of credit institutions by federal district, as of end of 2007





### Operating credit institutions

Since the beginning of 2007 the number of operating credit institutions declined almost in all federal districts. The biggest fall was registered in the Central Federal District (by 41), of which almost all credit institutions (39) were located in Moscow and the Moscow Region. In the Southern Federal District the number of credit institutions decreased by 6, in the Volga Federal District — by 5 and in the Urals Federal District — by 2. At the same time, in the Northwestern Federal District the number of credit institutions increased by 1 and in the Siberian and Far Eastern Federal Districts it remained unchanged.

### Branches of credit institutions

In 2007, the banking sector payment infrastructure in the federal districts expanded mainly due to growth in the number of branches and internal divisions of credit institutions.

The number of branches of credit institutions rose by 174, or 5.3% on average. The biggest increase was registered in the Northwestern and Urals Federal Districts (38 and 32 branches respectively). The Central Federal District demonstrated a moderate growth (26 branches), as new branches opened in the regions adjacent to Moscow and the Moscow Region, whereas in Moscow and the Moscow Region their number remained unchanged. In the Far Eastern Federal District the number of branches of credit institutions decreased from 209 to 202 in 2007.

The Central and Volga Federal Districts account for almost 44% of all branches of credit institutions. As before, in all federal districts, except the Central Federal District, the branches of credit institutions having their head offices located in other federal districts outnumbered the branches opened by local credit institutions.

### Internal divisions

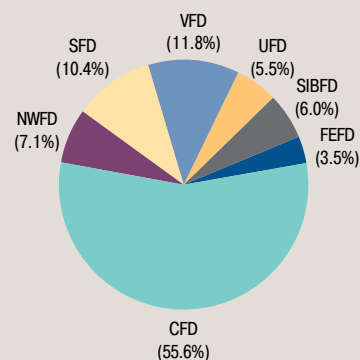
The expansion of internal divisions of credit institutions promoted favourable conditions for a higher accessibility of payment services provided by credit institutions. Since the beginning of 2007, their number increased by 3,820, or 12.0% on average. There was also a rapid growth in the number of additional offices of credit institutions, which increased by one-quarter over the year.

The most rapid increase in the number of additional offices of credit institutions was registered in the Volga Federal District (39.2%), Siberian Federal District (30.7%), Southern Federal District (29.5%) and Urals Federal District (25.7%). In the Central Federal District additional offices also developed fast. In the regions adjacent to Moscow and the Moscow Region their number grew by 32.6% and in Moscow and the Moscow Region — by 14.4%.

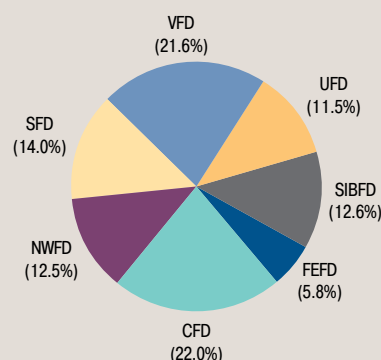
The largest share of additional offices was registered in the banking sector of the Southern, Far Eastern and Northwestern Federal Districts, which accounted for nearly 60% of all divisions of credit institutions providing payment services in the federal district. Although in the Volga Federal District this figure was almost twice as small (about 30%), the growth in the number of additional offices there was one of the fastest among federal districts.

In 2007, all federal districts, except for the Urals Federal District, registered the trend towards reduction in the number of cash and credit offices and cash departments outside cash settlement centers. In the Southern and Far Eastern Federal

**Chart 2.8.** Head offices of credit institutions by federal district, as of end of 2007

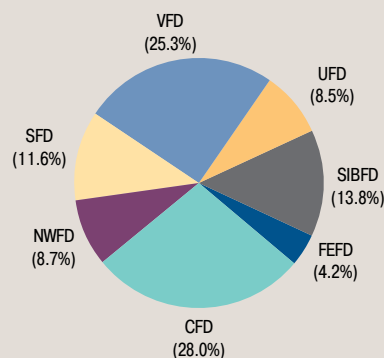


**Chart 2.9.** Branches of credit institutions by federal district, as of end of 2007



*Additional offices of credit institutions developed rapidly in all federal districts*

**Chart 2.10.** Internal divisions of credit institutions by federal district, as of end of 2007



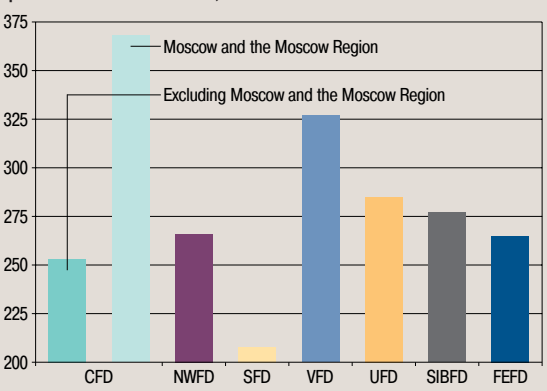
All federal districts, except for the Urals Federal District, showed the trend towards decline in the number of cash and credit offices and cash departments outside cash settlement centers

Districts their number fell considerably — by 21.3% and 11.3%, respectively.

The share of these divisions in the banking sector payment infrastructure was the largest in the Volga and Central Federal Districts (excluding Moscow and the Moscow Region), where by the end of 2007 their number had reached 5,700 and 2,400, respectively, or 57.0% and 47.5% of all divisions of credit institutions in the respective federal district. In the Southern, Far Eastern and Northwestern Federal Districts cash and credit offices and cash departments outside cash settlement centers accounted for nearly a quarter of all divisions of credit institutions providing payment services in the federal district.

In 2007, credit institutions in all federal districts began to open operations offices. As of end of 2007, there were 497 operations offices registered in Russia, of which 159 were located in the Central Federal District (24 of these — in Moscow and the Moscow Region), 109 — in the Volga Federal District and 79 — in the Siberian Federal District.

**Chart 2.11.** Divisions of credit institutions per million inhabitants, as of end of 2007

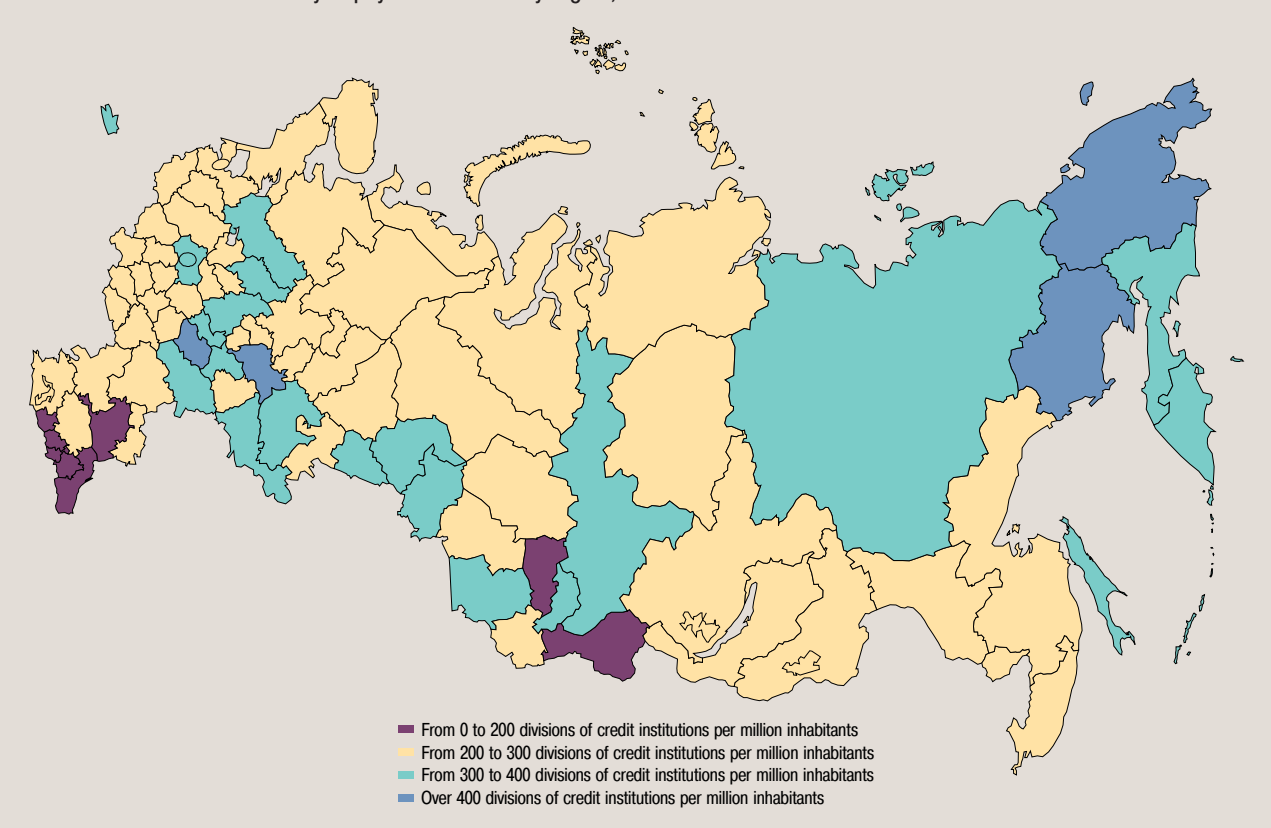


### ***Institutional density of payment services***

The leaders in terms of the number of divisions of credit institutions per million inhabitants are the Volga and Central Federal Districts, where by the end of 2007 this ratio stood at 327 and 306, respectively. In the Central Federal District, the largest number of divisions of credit institutions per million inhabitants was registered in Moscow and the Moscow Region (368), and in the adjacent regions within the federal district their number stood at 253. The smallest number of divisions of credit institution per million inhabitants was registered in the Southern Federal District (208). In other federal districts this number varied between 265 and 285, by the end of 2007.

*The Central and Volga Federal Districts had the highest indicators of institutional density of payment services*

**Chart 2.12.** Institutional density of payment services by region, as of end of 2007



The regional differences in the institutional density of payment services were more significant. The largest number of divisions of credit institutions per million inhabitants was registered in the Chukotka Autonomous Area (673) and the smallest — in the Chechen Republic (1). As Chart 2.12 shows, 9 Russian regions had less than 200 divisions of credit institutions per million inhabitants, 47 regions had 200 to 300, 19 regions had 300 to 400 and 4 regions had over 400 divisions of credit institutions per million inhabitants.

### ATM and POS terminal network development

Favourable trends towards enhancing the accessibility of payment services to the public are connected with the rapid expansion of the banking sector infrastructure designed for effecting bank card payments, notably the ATMs and POS terminals. In the period under review their number per million population in Russia increased by 41.4% on average and by the end of 2007 had reached 1,992. Significant growth in this ratio was registered virtually in all federal districts. In the Central Federal District (excluding Moscow and the Moscow Region) and the Volga Federal District it exceeded 50%, as the number of ATMs and POS terminals almost doubled in the Orel, Tambov, Vladimir and Kaluga Regions of the Central Federal District and in the Nizhni Novgorod Region, Mari El, Bashkortostan and Tatarstan Republics of the Volga Federal District.

In 2007, in Moscow and the Moscow Region and in the Southern and Urals Federal Districts the number of ATMs and POS terminals per million inhabitants increased about 40%, in the Northwestern and Siberian Federal Districts — by nearly 30% and in the Far Eastern Federal District — by almost 20%.

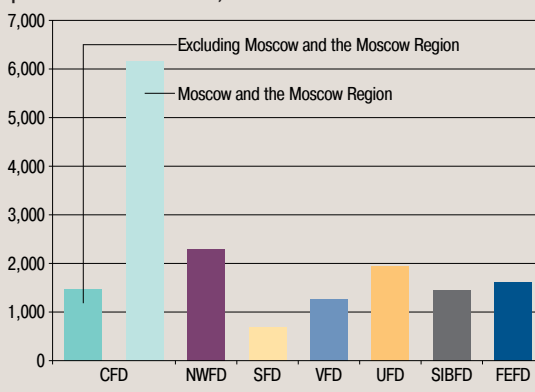
Despite the rapid expansion of the ATM and POS terminal network, significant differences remain between federal districts in terms of the number of ATMs and POS terminals per million population. As of end of 2007, the density of ATMs and POS terminals in the Central Federal District was 5 times as high as in the Southern Federal District. At the same time, the rates of growth in this indicator did not vary so much in these federal districts (46.4% and 42.3%, respectively).

In 2007, in two federal districts the number of POS terminals and ATMs per million population exceeded the national average. These are the Central Federal District and Northwestern Federal District, where, as of end of 2007, the ratio stood at 3,629 and 2,301, respectively. This is connected with high density levels of ATMs and POS terminals registered in Russia's two largest cities, Moscow and St. Petersburg, where there were 6,163 and 3,754 POS terminals and ATMs per million inhabitants, respectively.

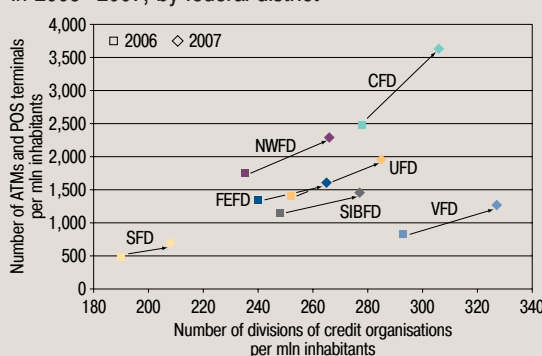
The number of ATMs and POS terminals per million inhabitants grew the fastest in the federal districts with high ratios of institutional density of payment services.

*Federal districts continue to differ significantly in terms of the number of POS terminals and ATMs per million inhabitants*

**Chart 2.13.** POS terminals and ATMs per million inhabitants, as of end of 2007



**Chart 2.14.** Divisions of credit institutions, POS terminals and ATMs per million inhabitants in 2006–2007, by federal district



### The concentration ratio of payment services

(in terms of volume/value) — the market share of the five credit institutions that are the largest providers in the payment services market.

**The Herfindahl-Hirschman Index (HHI)** — the sum of the squared shares of all companies operating in the market. It has a value of 0 to 1.

HHI less than 0.1 indicates a low concentration level, from 0.1 to 0.18 — a medium concentration level and over 0.18 — a high concentration level.

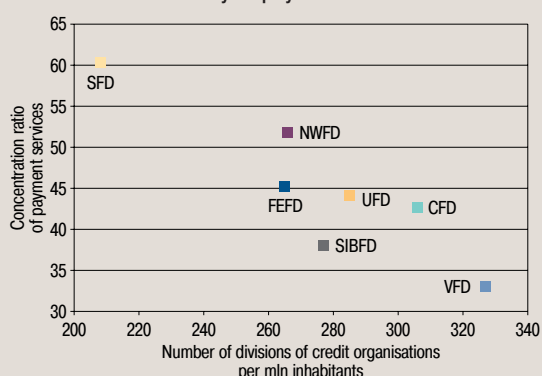
**Table 2.3.** Concentration ratio in the private payment services market in 2007 (%)

Federal district	Concentration ratio (in terms of volume)	Concentration ratio (in terms of value)
Central Federal District	39.6	54.9
Northwestern Federal District	50.7	50.4
Southern Federal District	62.3	54.4
Volga Federal District	32.1	39.3
Urals Federal District	50.9	43.8
Siberian Federal District	36.3	41.4
Far Eastern Federal District	38.8	44.5

**Table 2.4.** Herfindahl-Hirschman Index (HHI) in the private payment services market in 2007

Federal district	HHI (in terms of volume)	HHI (in terms of value)
Central Federal District	0.06	0.13
Northwestern Federal District	0.09	0.07
Southern Federal District	0.11	0.10
Volga Federal District	0.03	0.05
Urals Federal District	0.05	0.06
Siberian Federal District	0.04	0.05
Far Eastern Federal District	0.06	0.05

**Chart 2.15.** Concentration (in volume terms) and institutional density of payment services in 2007



## Concentration of banking sector payment services<sup>1</sup>

The payment systems in the federal districts differ considerably in terms of the concentration level of payment flows in individual credit institutions and their customers. Table 2.3 shows data on the market share of the top five providers of payment services in the federal districts. In 2007, this share ranged from 32.1% in the Volga Federal District to 62.3% in the Southern Federal District (in volume terms) and from 39.3% in the Volga Federal District to 54.9% in the Central Federal District (in value terms).

At the same time, the concentration ratio in the payment services market, calculated on the basis of the Herfindahl-Hirschman Index<sup>2</sup>, was low.

The HHI in all federal districts did not exceed 0.13 both in volume and in value, which means that the payment services concentration was not high. Only the Southern Federal District had a medium level of payment services concentration: the HHI stood at 0.11 in terms of the volume of payments and at 0.1 — in terms of their value. The Central Federal District had a low concentration level in terms of the volume of payment services provided (HHI = 0.06) and a medium concentration level in terms of the value of payments. These figures reflect, in a whole, the specificity of the payment services in this federal district, which is characterized by a great number of banking system institutions and a large volume of payments passed through the payment system.

One of the factors influencing the level of payment services concentration is the development of the regional banking infrastructure. Therefore, the federal districts with more extensive network of divisions of credit institutions and high ratios of divisions of credit institutions per million inhabitants have, as a rule, a low concentration of payment services in terms of their volume.

## Differentiation of the payment services accessibility

Data on banking system development in 2007 show that the gap between the federal district with the largest number of divisions of credit institutions per million inhabitants and the federal district with their smallest ratio was widening. While at the beginning of the year the gap was 103 divisions of credit institutions, by the end of 2007, it had reached 119. However, this does not necessarily mean that the differences in the development of payment services in the federal districts have increased.

Some federal districts with a less developed network of divisions of credit institutions registered a more rapid increase in

<sup>1</sup> The level of payment services concentration affects the risk level and the effectiveness of payment and settlement systems. A large credit institution can make significant investments in technology, save due to the scale of payments and provide a wider range of services to its customers. At the same time, the concentration of payment transactions involves risk that may lead to a default.

For banking concentration, see also *Banking Supervision Report 2007* at [www.cbr.ru](http://www.cbr.ru).

<sup>2</sup> The weak point of the concentration ratio is its instability in respect to the changing number of enterprises included in the calculation, as it does not reflect the distribution of shares within and outside the group of the largest enterprises. The HHI does not have this drawback.

the level of institutional density of payment services. In 2007, in the Northwestern Federal District the number of divisions of credit institutions per million inhabitants rose by 13.2%, in the Urals Federal District — by 13.1% and in the Siberian Federal District — by 11.7%. These federal districts outpaced the Volga Federal District, the leader in terms of the density of payment services, which registered a growth of 11.6%. Similar developments that led to the reduction of intraregional differentiation of payment services accessibility were registered in the Central Federal District (see Inset 3).

This dynamics promotes the trend towards gradual reduction of differentiation between the federal districts in terms of payment services accessibility. However, the Southern Federal District, which had fewer divisions of credit institutions per million population than any other federal district, continued to register the lowest rates of growth in the banking sector. This reflected the specificity of economic development in that region<sup>1</sup> and ran counter to the general trend towards smoothing of intraregional differences in the accessibility of payment services.

*Most of the federal districts registered a trend towards gradual reduction of differentiation of payment services accessibility*

Inset 3

### **The effect of agglomeration on the banking sector payment infrastructure in the Central Federal District**

The features of payment services development in the federal districts were largely determined by the specificity of economic growth in one or another region. Until recently the proximity to Moscow had a negative effect on economic growth in the adjacent regions. The benefits of investing in Moscow and the Moscow Region not only attracted huge capital there, but also stimulated the inflow of migrant workers from the neighbouring regions. This also reflected in the characteristics of the banking sector infrastructure development in the Central Federal District. The number of divisions of credit institutions per million inhabitants there (excluding Moscow and the Moscow Region) is considerably smaller than the similar ratio not only in Moscow and the Moscow Region, but also in most of the other federal districts. At the same time, experts note that the expansion of the Moscow agglomeration created more and more difficulties for businesses in that region and, consequently, made the adjacent regions increasingly attractive from the viewpoint of investment performance. As a result, the number of divisions of credit institutions in the regions bordering on Moscow is growing faster than in the capital or in the country on average. So the regions of the Central Federal District adjacent to Moscow and the Moscow Region registered the fastest rates of growth in the institutional density of payment services. While in Moscow and the Moscow Region this ratio increased by 7.9% in 2007, in the neighbouring regions of the Central Federal District it grew by 12.9%.

Therefore, the consequences of the agglomeration process are one of the factors of the future development of payment services provided by credit institutions in the Central Federal District.

\* Agglomeration is a compact spatial grouping of inhabited settlements united by intensive production and cultural relations.

<sup>1</sup> Compared to the other federal districts, the Southern Federal District is characterised by a low per capita income and the highest ratio of the rural population relative to the urban population.



## **Chapter 3. MAIN FEATURES OF INDIVIDUAL PAYMENT SYSTEMS**



## Payment system of the Bank of Russia

The payment system of the Bank of Russia is a systemically important payment system that plays a major role in maintaining financial stability in the country and effective implementation of the monetary policy.

### *Participants in the payment system of the Bank of Russia*

The participants in the payment system of the Bank of Russia, as of end of 2007, were 1,136 credit institutions and 2,285 branches of credit institutions. The number of accounts opened for them increased by 5.0% over the year and as of end of 2007, stood at 3,421.

At the same time, the number of customers other than credit institutions serviced by Bank of Russia reduced from 36,401 to 29,324, or by 19.4%. This decrease was due to the fact that the powers for the cash execution of government budgets at all levels have been transferred to the Federal Treasury.

### *General characteristics of the payment system of the Bank of Russia*

In 2007, the volume of payments effected through the payment system of the Bank of Russia increased by 19.8% to 833.9 million, while the value of payments grew by 66.8% to 445.8 trillion rubles.

At the same time, the average daily volume of payments passed through the payment system of the Bank of Russia increased by 17.9% over the year and stood at 3.3 million. The average payment value increased by 39.3% to 534,600 rubles (as against 383,900 rubles in 2006).

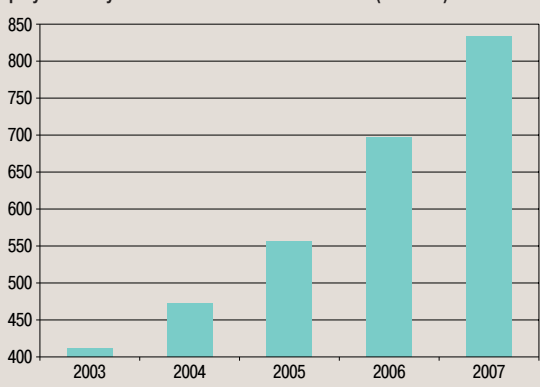
Payments passed through the payment system of the Bank of Russia accounted for almost 60% of the total value of ruble payments effected by the payment system of Russia.

In 2007, the value of payments effected through the payment system of the Bank of Russia relative to Russia's GDP expanded from 10.0 to 13.5. Accordingly, the value of payments equivalent to the Russia's full-year GDP passed through the payment system of the Bank of Russia every 18 days. This compares with 24 days in 2006.

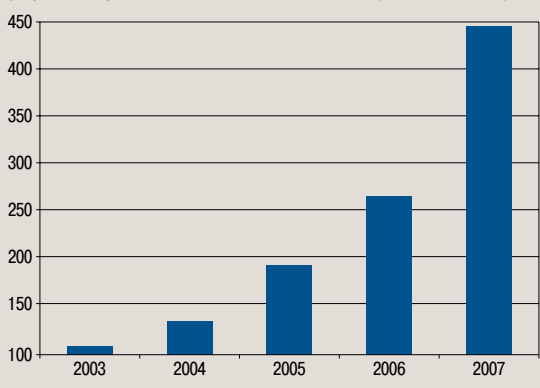
Growth in payments passed through the payment system of the Bank of Russia was mostly due to payments effected by credit institutions. In 2007, these payments accounted for 83.7% of the total volume and 80.3% of the total value of payments effected through the payment system of the Bank of Russia (as against 82.0% and 84.6% in 2006). In 2007, the payment system of the Bank of Russia effected 59.6% of the total volume and 71.9% of the total value of interbank payments<sup>1</sup> in Russia. This testifies to the importance of the payment system of the Bank of Russia for the smooth functioning of the country's banking system.

In 2007, payments of the credit institutions to the amount of 13.6 trillion rubles were effected through the payment system of the Bank of Russia using intraday and overnight credits extended by the Bank of Russia for completion of settlements.

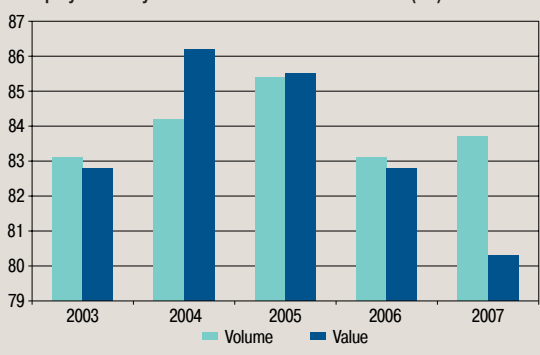
**Chart 3.1.** Volume of payments effected through the payment system of the Bank of Russia (million)



**Chart 3.2.** Value of payments effected through the payment system of the Bank of Russia (trillion rubles)



**Chart 3.3.** The share of payments of credit institutions in total volume and value of payments effected through the payment system of the Bank of Russia (%)



<sup>1</sup> In calculation of this indicator are included payments of credit institutions and their branches effected through the payment system of the Bank of Russia, correspondent accounts of credit institutions (including settlement non-bank credit institutions) opened with other credit institutions and the intrabank payment systems. Payments effected within one division of a credit institution are excluded.



The share of payments effected through the payment system of the Bank of Russia by customers other than credit institutions in 2007 decreased slightly — by 16.2% in terms of volume and by 8.7% in terms of value, whereas the share of the Bank of Russia's own payments remained unchanged in volume but expanded from 2.6% to 11.0% in value.

The figures cited above illustrate a high demand for services provided by the payment system of the Bank of Russia as a low-risk and high-performance interbank funds transfer system, the expansion of the customer base of credit institutions and the rise in the business activity of economic agents.

#### *Bank of Russia payment technologies*

In 2007, the overwhelming majority of payments in the payment system of the Bank of Russia were effected electronically. They accounted for 99.7% in terms of both volume and value. The electronic payments effected through the payment system of the Bank of Russia in 2007 increased by 20.0% in volume and by 67.0% in value. At the same time, the volume of paper-based payments declined by 20.4%, whereas their value increased by 5.3%.

The development of electronic technologies led to growth in the number of the Bank of Russia's customer credit institutions that participated in the exchange of electronic documents with the Bank of Russia. In 2007, their share in total customers of the bank of Russia increased from 96.4% to 97.0%, while the share of their payments transmitted to the payment system of the Bank of Russia through communication channels in the total volume of payments effected through this payment system increased to 97.8% (as against 97.7% in 2006).

The average monthly accessibility ratios of the payment system of the Bank of Russia, that is, the indicators of the system's capability to accept settlement documents from its customers, in 2007 ranged between 99.0% and 99.9% for electronic documents and between 99.95% and 100% for paper documents.

The average time period of effecting settlement transactions for all the technologies used continued to decrease at both intra- and interregional levels. The average time period of settlement transactions reduced by 0.01 days to 0.64 days at the intraregional level and by 0.04 days to 1.01 days at the interregional level, mostly due to the reduction in the average times of settlement transactions conducted electronically.

#### *Payments on a charge and free of charge basis effected through the payment system of the Bank of Russia*

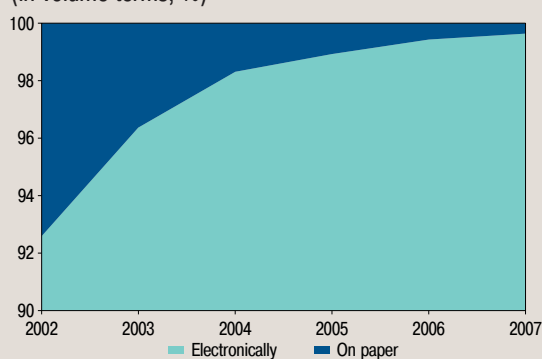
In 2007, the ratio between the payments effected by the Bank of Russia on a free of charge basis (in the cases stipulated by law) and for pay remained virtually unchanged and as of end of the year stood at 52.1% and 47.9%, respectively (as against 53.7% and 46.3% in 2006).

Compared to 2006, payments effected through the payment system of the Bank of Russia on a charge and free of charge basis in 2007 increased by 18.5% and 26.4% in volume and by 69.4% and 45.8% in value, respectively.

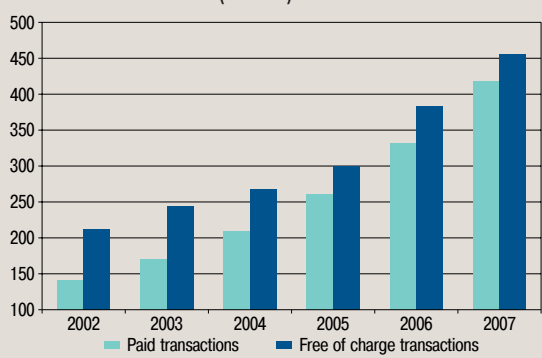
#### *Banking Electronic Speed Payment (BESP) system*

In 2007, along with the intra- and interregional electronic settlement systems, a new system, designed to effect urgent payments and gross settlements in a real time, began to function in the Bank of Russia. The creation of this system was the result of a rising demand of the Russian economy for urgent

**Chart 3.4.** Payments effected through the payment system of the Bank of Russia, by technology (in volume terms, %)



**Chart 3.5.** Volume of paid and free of charge transactions effected through the payment system of the Bank of Russia (million)



and, as a rule, large-value payments that require faster finality and effective risk management.

Real-time gross settlement systems allow to minimise the risks of the participants due to a minor time lag between the receipt of a payment for processing and its settlement (in case of funds sufficiency). Such systems now operate in more than 80 countries, including all member countries of the European Union and virtually all other industrialised nations. As a rule, they are owned and operated by the central (national) banks, and Russia is no exception. The real-time gross settlement system of the Bank of Russia is known as BESS or the Banking Electronic Speed Payment system.

The early designs of this system were developed by the Bank of Russia in the mid-1990s, based on the following principles:

- evolutionary, step-by-step development of the payment system of the Bank of Russia, that would eventually make it possible to create the BESS system without impeding the smooth functioning of the existing payment system or reducing the volume of payments effected through it;
- making the most of the existing technical infrastructure and the experience gained and using the advanced methods for ensuring disaster- and failure-resistant solutions and a high level of system security and reliability;
- using the world's latest expertise in building and developing such systems.

BESS system is set up as an additional system and operates in parallel with and independently from the intra- and interregional electronic settlement systems.

The development of BESS was accompanied by the elaboration of a comprehensive regulatory framework that would prevent the legal risks. The Bank of Russia worked out rules and regulations on the system operation, establishing its designation, the procedures for effecting payments and settlements by its participants, for managing the participation in the system and the conditions for keeping the BESS directory of participants. It also set the BESS operation rules and the procedure for monitoring the system.

After the elaboration of the regulatory framework and the development of the program-technical infrastructure required for the system functioning had been completed, BESS was put into operation in July 2007.

Later that year 98 Bank of Russia branches (47 main cash settlement centers, 44 cash settlement centers, the Bank of Russia First Operations Department, the Operations Department and five divisions of the Bank of Russia Moscow Branch) and 17 credit institutions became the participants in BESS<sup>1</sup>. BESS has been operating on a regular basis since December 2007.

Putting into operation the BESS system allowed to continue the transition to a centralised architecture of the payment system of the Bank of Russia.

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<sup>1</sup> Information on the Bank of Russia customers accepted to participate in BESS, on BESS rules, regulations and amendments made to them is available on the Bank of Russia website in sub-section entitled 'BESS'.

## Payment systems connected with securities settlement systems

### MICEX Group System<sup>1</sup>

#### General characteristics of the MICEX Group

The MICEX Group is an integrated exchange that organises electronic trading, clearing and settlement of transactions and provides depository and information services. At present the MICEX Group operates the national trade system in all key segments of the financial market: the foreign exchange market, stock market, corporate and regional bond market, government bond market, derivatives market and money market.

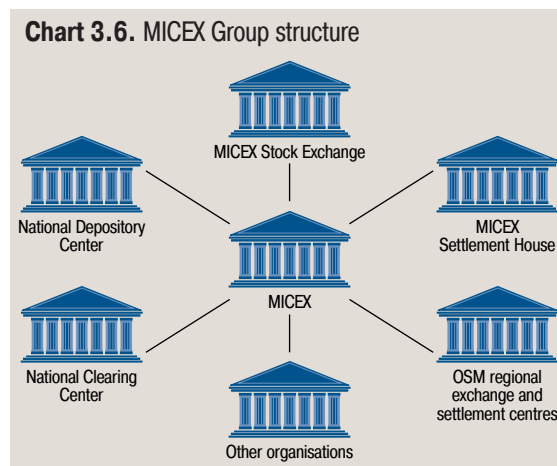
The volume of transactions in all MICEX Group markets in 2007 totalled 47,362,400, an increase of 30% on the previous year. Of these, stock market transactions rose by 30% to 46,759,600, transactions in the market of government securities and money market increased 2.1 times to 118,300, foreign exchange market transactions increased 1.1 times to 478,800 and derivatives market transactions increased 2.0 times to 5,700.

The total value of transactions in all MICEX Group markets in 2007 expanded 2.1 times year on year and accounted for 106.9 trillion rubles. Of these, stock market transactions increased 2.1 times to 43.5 trillion rubles, government securities and money market transactions — 4.8 times to 23.2 trillion rubles, foreign exchange transactions — 1.5 times to 38.0 trillion rubles and derivatives market transactions increased 2.5 times to 2.2 trillion rubles.

#### MICEX Group infrastructure

The MICEX Group comprises the following organisations:

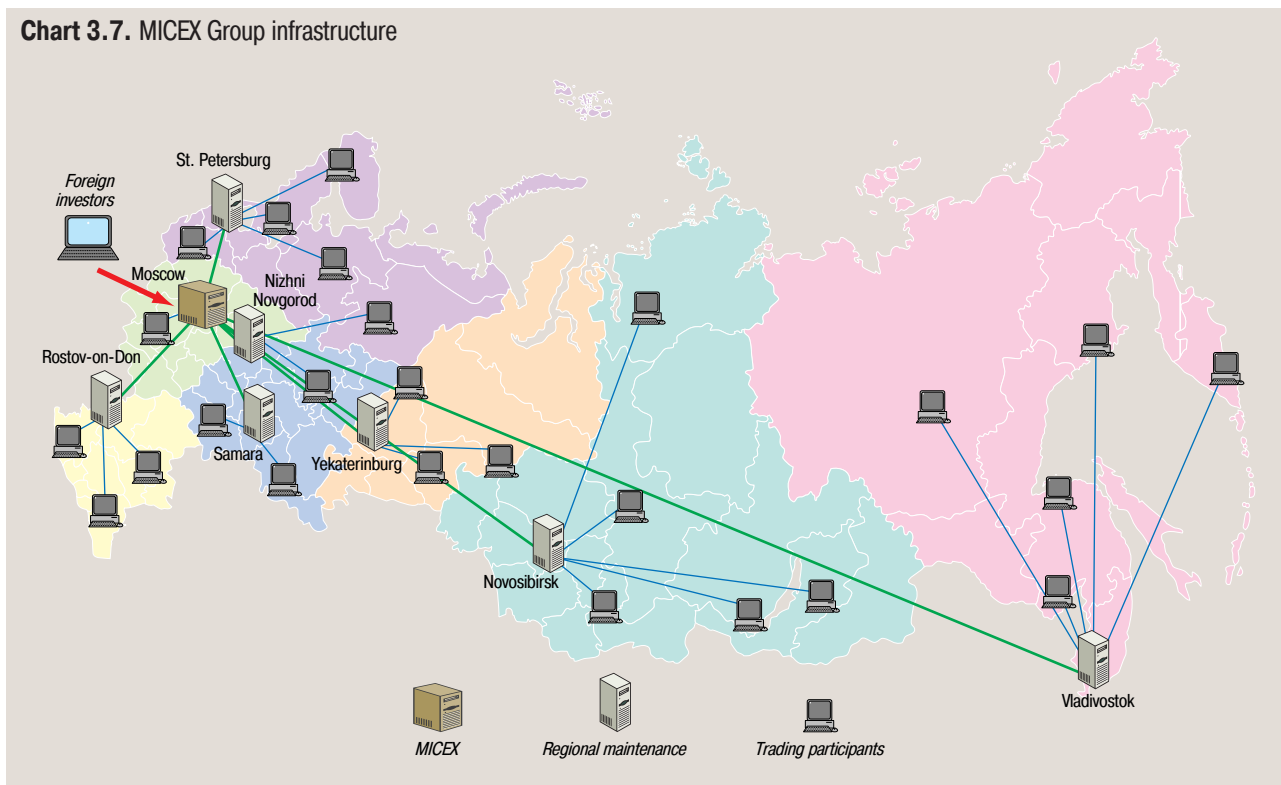
- the Moscow Interbank Currency Exchange (MICEX), a closed joint-stock company, which provides clearing services, integrated technological services for transactions in securities and other financial assets, performs the functions of trade organiser in the government securities market and services deposit and credit transactions between commercial banks and the Bank of Russia;
- the MICEX Stock Exchange, a closed joint-stock company, which provides the necessary conditions for the functioning of the securities market for professional market participants and investors as a securities trading platform;
- the MICEX Settlement House, a closed joint-stock company and non-bank credit institution, which provides banking settlement services, including cash settlement of transactions between financial market participants;
- the National Depository Center (NDC), a non-profit partnership, which is a depository settlement system that services all kinds of Russian securities;
- the National Clearing Center, a closed joint-stock commercial bank, which is a clearing center and a central counterparty for the foreign exchange market transactions;
- the regional exchange and settlement centers of the organised securities market (OSM), which promote the introduction of new technologies and systems for the timely settlement with the regional exchange trade participants in different time zones and provide a wide range of information and consulting services.



**The central counterparty** is an entity that is the buyer to every seller and seller to every buyer of a specified set of contracts, e.g. those executed on a particular exchange or exchanges.

<sup>1</sup> This information is based on data provided by the MICEX Group.

**Chart 3.7. MICEX Group infrastructure**



*MICEX Group securities transactions participants*

In 2007, the MICEX Group participants, that were provided with the full range of services for securities transactions, were 359 credit institutions and 290 non-credit institutions.

*Securities transactions clearing and settlement*

One of the key elements of the exchange trade infrastructure that ensures cash settlement for transactions in the MICEX Group financial markets is the MICEX Settlement House. It enables the rapid redistribution of funds between the stock market and other exchange markets, depending on the trading conditions, and complete cash settlement for transactions of financial market participants on the trade date.

The clearing of transactions settled at the expense of clearing participants and their customers and by funds in the safe-keeping of clearing participants is effected by MICEX.

**Table 3.1. Instructions received and securities transactions executed by the MICEX Group in 2007**

Type of securities	Trading platforms	Clearing house	Settlement organisation
	<b>MICEX Stock Exchange/MICEX</b>	<b>MICEX</b>	<b>MICEX Settlement House</b>
	<i>number, thousand</i>		
	<i>instructions</i>	<i>transactions</i>	
Federal government securities	311.99	92.39	38.17
Regional and municipal government securities	335.00	92.17	54.57
Bank of Russia bonds	6.36	1.87	0.68
Corporate bonds	2,370.85	517.99	281.59
Shares	98,874.83	46,099.82	1,072.52
	<i>value, billion rubles</i>		
	<i>instructions</i>	<i>transactions</i>	
Federal government securities	23,529.72	10,056.02	10,056.02
Regional and municipal government securities	7,052.05	2,994.53	2,994.31
Bank of Russia bonds	20,181.12	9,415.11	9,415.11
Corporate bonds	47,557.15	12,451.17	12,450.59
Shares	98,718.54	30,927.08	30,922.57

MICEX effects the clearing with or without preliminary deposit of funds with the MICEX Settlement House or securities with the NDC.

MICEX ensures the settlement of net obligations and net claims of the clearing participants on a Delivery Versus Payment basis.

The multilateral netting mechanism ensures the netting of similar obligations and claims of the clearing participants in respect of funds and securities, which results in the calculation of net obligations and net claims of the clearing participants in respect of funds and securities. It allows to reduce the clearing participants' costs connected with the need to execute each trade. MICEX also determines the obligations of the clearing participants by a "simple" clearing.

#### MICEX Group innovations in 2007

With a view to bring the settlement services closer to the financial market participants and improve the settlement efficiency, the MICEX Settlement House opened its branches in Rostov-on-Don and Vladivostok.

In 2007, MICEX transferred to a new clearing scheme in the foreign exchange market, with the participation of a central counterparty, whose role was now played by the National Clearing Center, a subsidiary of the MICEX Group set up specially for this purpose. This organisation specialises in clearing in the on-exchange and over-the-counter markets, including the calcu-

**Delivery Versus Payment (DVP)** signifies the transfer of funds on condition of the delivery of securities in a transaction and vice versa, which insures both counterparties against the risk of loss of funds and securities.

**"Simple" clearing** allows to effect the settlement of transactions on a DVP basis during the trade date in a mode close to the real time, that is, immediately on the trade date rather than after closure.

**Table 3.2.** Features of the MICEX Group system as regards securities transactions (as of end of 2007)\*

	Trading platforms	Clearing house	Settlement organisation
	MICEX Stock Exchange/MICEX	MICEX	MICEX Settlement House
Type [1]	–	–	L
Type of securities held [2]	B, G, S, O		
Owner/manager [3]	CB, B, I	CB, B, I	SE
Processing [4]	ACH	ACH, RTT	RTT
Cash settlement [5]	N	N, RTGS	GS
Securities settlement (delivery) [5]	N	N, RTGS	–
Delivery lag (T + n) [6]	T + 0	T + 0	–
DVP (Delivery Versus Payment) mechanism	DVP3 [7]		
Intraday finality	–	–	Yes
Securities depository	NDC		
Membership [8]	RM		
Degree of centralisation [9]	C		
Pricing [10]	V	V	S
Opening/closing time for same-day transactions (local time)	10.00/18.00	10.00/19.00	8.30/20.30

\* To characterise the system the BIS Red Book symbols are used.

[1] L — large-value funds transfer system.

[2] B — bonds, G — government securities, S — shares, O — other securities.

[3] B — commercial banks, CB — central bank, SE — stock exchange, I — Depository Clearing Company, Association of Russian Banks and MICEX.

[4] ACH — automated clearing house (offline), RTT — real-time transmission.

[5] N — multilateral netting (when servicing the government securities market, the trading platform performs clearing functions), RTGS — real-time gross settlement, GS — gross settlement.

[6] T + 0 — the delivery lag may be extended up to 180 days should the parties wish so.

[7] DVP3 — in DVP model 3 the transfer instructions for both securities and funds are settled on a net basis, with final transfer occurring at the end of the processing cycle.

[8] RM — restricted membership (subject to criteria). Any bank, which is a trading participant, can apply. To obtain the status of a trading participant, several conditions must be met.

[9] C — centralised (one processing center where all settlement instructions are processed).

[10] V — variable cost, S — symbolic cost (below variable cost).

‘–’ — not applicable.

**Payment Versus Payment (PVP)** is a mechanism in a foreign exchange settlement system which ensures that a final transfer of one currency occurs if and only if a final transfer of the other currency or currencies takes place.

lation of the obligations of clearing participants, the organisation of their settlement on a Payment Versus Payment basis and control over the counterparty risk. In the future the National Clearing Center is also going to perform the functions of a central counterparty in the government securities repo market and later — in the stock and derivatives markets.

### **RTS Group system<sup>1</sup>**

#### *General characteristics of the RTS Group*

The RTS Group of companies is an integrated trade and settlement infrastructure that provides trading, clearing, settlement, depository and information services to its participants. It provides customer services in the stock and derivatives markets, which differ in terms of the instruments traded (securities and derivatives) and the way trading and settlement are organised.

In 2007, the value of trades in the RTS derivatives market (FORTS) increased 3 times and reached \$297.4 billion, or 144.9 million contracts. The range of the instruments used covers 64 contracts (46 futures and 18 options) for stocks of the Russian issuers, bonds, interest rates, foreign currency, the RTS Index, oil, precious metals and other commodities.

As a result of the restructuring conducted in 2007, the RTS Stock Exchange, an open joint-stock company, replaced the Russian Trading System Stock Exchange, a non-profit partnership, as the center of the RTS Group.

#### *RTS Group infrastructure*

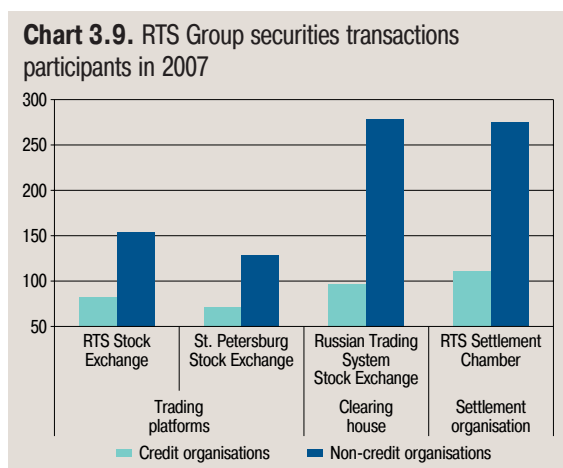
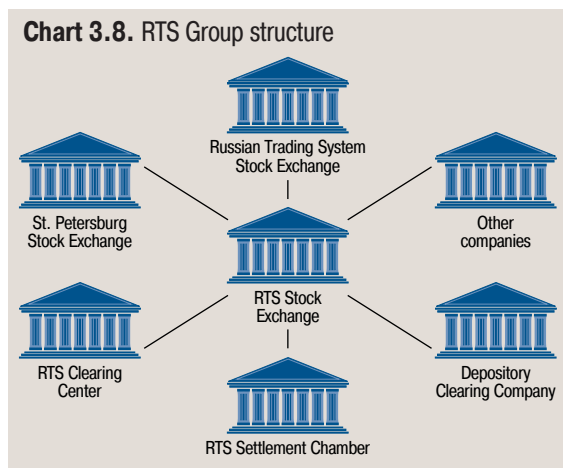
The RTS Group comprises the following organisations:

- the RTS Stock Exchange, an open joint-stock company, which organises trading in the securities and derivatives markets;
- the Russian Trading System Stock Exchange, a non-profit partnership, which provides clearing services in respect of securities transactions;
- the St. Petersburg Stock Exchange, a non-profit partnership, which organises trading in the securities market;
- the RTS Clearing Center, a closed joint-stock company, which effects centralised clearing of derivatives transactions;
- the RTS Settlement Chamber, a non-bank credit institution and limited liability company, which provides banking settlement services to customers, including the RTS Stock Exchange and St. Petersburg Stock Exchange trading participants;
- the Depository Clearing Company (DCC), a closed joint-stock company, which is the settlement depository of the RTS Group. It provides a full range of services related to effecting transactions and holding securities listed in the RTS, mostly corporate stocks and bonds. In addition, the DCC effects clearing without prior collateral for the on-exchange and over-the-counter securities transactions conducted on a DVP basis in US dollars.

#### *RTS Group securities transactions participants*

In 2007, the securities transactions participants in the RTS Stock Exchange were 82 credit institutions and 154 non-credit institutions and in the St. Petersburg Stock Exchange — 72 credit institutions and 129 non-credit institutions. The Russian Trading System Stock Exchange had 97 credit institutions

<sup>1</sup> This information is based on data provided by the RTS Group.





and 279 non-credit institutions as its participants and the RTS Settlement Chamber — 111 credit institutions and 275 non-credit institutions.

*Organisation of settlement and clearing of securities transactions*

Settlement in the stock and other segments of the RTS financial market is effected by the RTS Settlement Chamber, which uses the electronic data management systems capable of servicing the customers in any region of Russia.

In 2007, the RTS Settlement Chamber continued to settle the transactions in respect of purchase and sale of dollar-denominated Russian securities between non-residents on a DVP basis.

Fully collateralised securities transactions are cleared by the Russian Trading System Stock Exchange, which also effects clearing of electronic trades as regards the obligation to pay penalties and fines.

The Depository Clearing Company effects the clearing of on-exchange and over-the-counter securities transactions without prior collateral on a DVP basis.

The RTS Clearing Center effects the centralised clearing of derivatives transactions.

**Table 3.3.** Securities transactions executed by the RTS Group in 2007

Type of securities	Trading platforms		Clearing house	Settlement organisation
	RTS Stock Exchange	St. Petersburg Stock Exchange	Russian Trading System Stock Exchange	RTS Settlement Chamber
	<i>volume of transactions</i>			
Regional and municipal government securities	41	–	9	42,474
Corporate bonds	555	–	8	
Stocks	162,461	96,939	210,971	
	<i>value of transactions, billion rubles</i>			
Regional and municipal government securities	0.47	–	1.76	305.13
Corporate bonds	0.99	–	1.25	
Stocks	395.11	64.16	261.22	

### RTS Group innovations in 2007

In October 2007, the RTS began to hold in its derivatives market (FORTS) an intermediate clearing session that allowed clearing participants to increase the effectiveness of transactions by reducing the value of the collateral required for trades concluded during the day. This method makes it possible to reduce the value of collateral for futures and options by 30–50% while enhancing the execution of transactions.

In 2007, trades in the RTS electronic trading began to be concluded and settled with the central counterparty represented by the Russian Trading System Stock Exchange.

The RTS derivatives market (FORTS) adopted the technology and algorithm of collateral calculation that allowed to assess more accurately the risks of the position portfolio of the participants and their customers while increasing the overall performance of the system.

**Table 3.4.** Features of the RTS Group system as regards securities transactions (as of end of 2007)\*

	Trading platforms		Clearing house	Settlement organisation
	RTS Stock Exchange	St. Petersburg Stock Exchange	Russian Trading System Stock Exchange	RTS Settlement Chamber
Type [1]	–	–	–	L
Type of securities held [2]	S, B, G, O	S	S, B, G, O	–
Owner/manager	RTS Stock Exchange	St Petersburg Stock Exchange	Russian Trading System Stock Exchange	RTS Stock Exchange
Processing [3]	–	–	ACH, RTT	RTT
Cash settlement [4]	–	–	N	GS
Securities settlement (delivery) [4]	–	–	N	–
Delivery lag (T + n) [5]	T + 0 / T + 4 / T + n	T + 0	–	–
DVP (Delivery Versus Payment) mechanism	–	–	DVP3 [6]	–
Intraday finality	–	–	Yes	Yes
Securities depository	Depository Clearing Company / Settlement Depository Company [7]	Depository Clearing Company / Settlement Depository Company	Depository Clearing Company / Settlement Depository Company	–
Membership [8]	RM	RM	O	O
Degree of centralisation [9]	–	–	D	C
Pricing [10]	V	V	V	N, F
Opening/closing time for same-day transactions (local time)	10.30/18.00	10.30/18.00	8.45/20.00	9.00/19.20

\* To characterise the system the BIS Red Book symbols are used.

[1] L — large-value funds transfer system.

[2] B — bonds, G — government securities, S — stocks, O — other securities.

[3] ACH — automated clearing house (offline), RTT — real-time transmission.

[4] N — multilateral netting, GS — gross settlement.

[5] T + 0 — applies to fully collateralised trades, T + 4 — to electronic trades, T + n — to not collateralised address trades with deferred execution.

[6] DVP3 — in DVP model 3 the transfer instructions for both securities and funds are settled on a net basis, with final transfer occurring at the end of the processing cycle.

[7] The Settlement Depository Company, a closed joint-stock company, which is the settlement depository providing services for the organised stock market at the St. Petersburg Stock Exchange with the participation of the Russian Trading System Stock Exchange as the clearing organisation.

[8] O — open membership (any bank can apply), RM — restricted membership (subject to criteria).

[9] C — centralised (one processing center where all settlement instructions are processed), D — decentralised (more than one processing center).

[10] F — full cost (including investments) for the RTS electronic trades, V — variable cost, N — no cost (no expenditures).

‘—’ — not applicable.



## **ADDENDUM**

## Comparative tables

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### Notes.

Data for these comparative tables for Russia and the Group of 10 countries have been calculated based on the statistical methodology of the Bank for International Settlements for the Red Book ([www.bis.org/publ/cpss78.pdf](http://www.bis.org/publ/cpss78.pdf) in English). Data for the European Union and the acceding countries have been calculated according to the statistical methodology of the European Central Bank for the Blue Book ([www.ecb.int/pub/pdf/other/bluebook200612addenden.pdf](http://www.ecb.int/pub/pdf/other/bluebook200612addenden.pdf) in English). Data for CIS countries (Belarus and Kazakhstan) have been calculated according to the methodology of the World Bank for the Silver Book ([www.cis-pi.org/files/methodology.doc](http://www.cis-pi.org/files/methodology.doc) in Russian).

Data for Russia include transactions in the national currency.

Abbreviations used in the comparative tables:

nav — not available

nap — not applicable

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<sup>1</sup> Non-banks are individuals and corporate entities other than credit institutions.

**Banknotes and coin in circulation outside banks  
(as of end of 2005)**

	Total value, billion US dollars <sup>1</sup>	Value per inhabitant, US dollars <sup>1</sup>	Value as a percentage of GDP	Value as a percentage of narrow money
Bulgaria	3.3	420.4	12.9	43.4
Canada	39.3	1,216.8	3.3	12.0
Czech Republic	10.7	1,048.5	9.1	22.7
Denmark	7.5	1,379.4	3.0	7.4
Estonia	0.7	489.4	5.1	15.2
Hungary	7.5	740.1	7.1	30.8
Japan	639.7	5,007.4	15.0	18.9
Kazakhstan	3.2	209.2	5.7	53.2
Latvia	1.3	579.0	8.8	27.4
Lithuania	2.1	612.3	8.6	29.3
Malta	1.4	3,393.6	25.7	29.7
Poland	17.5	457.7	6.1	27.5
Romania	3.7	171.3	4.0	47.1
Singapore	8.8	2,018.4	7.5	31.6
Slovakia	3.7	692.8	8.3	24.7
Slovenia	1.0	510.3	3.1	34.0
Sweden	12.6	1,396.7	3.7	9.4
Switzerland	28.5	3,799.3	8.2	12.8
UK	70.3	1,167.8	3.3	4.4
USA	729.0	2,703.6	5.8	52.2
Euroarea <sup>2</sup>	575.2	1,836.3	6.1	14.0
<b>Russia</b>	<b>69.8</b>	<b>486.2</b>	<b>9.3</b>	<b>52.1<sup>3</sup></b>
<b>Russia, 2007</b>	<b>150.8</b>	<b>1,060.7</b>	<b>11.2</b>	<b>46.4<sup>3</sup></b>

<sup>1</sup> Converted at end-of-year exchange rates.

<sup>2</sup> Aggregated data for euro area countries.

<sup>3</sup> As a percentage of the aggregate 'Money' according to the Monetary Survey methodology.

**Institutions offering payment services to non-banks  
(as of end of 2005)**

	Number of institutions <sup>1</sup>		Number of branches or offices <sup>2</sup>	
	total number	number per million inhabitants	total number	number per million inhabitants
Austria	820	99.7	5,125	623.1
Belarus	32	3.3	440	44.9
Belgium	106	10.1	5,922	565.5
Bulgaria	34	4.4	665	85.9
Canada	1,255	38.9	14,227	440.7
Cyprus	398	525.2	1,299	1,714.2
Czech Republic	58	5.7	5,390	526.7
Denmark	199	36.7	2,132	393.4
Estonia	22	16.3	781	579.6
Finland	368	70.2	1,617	308.3
France	856	13.7	40,692	649.0
Germany	2,090	25.3	46,219	560.5
Greece	63	5.7	4,028	363.2
Hungary	218	21.6	5,992	594.0
Ireland	80	19.3	2,097	505.5
Italy	799	13.7	44,592	767.0
Japan	1,773	13.9	57,539	450.4
Kazakhstan	366	24.1	1057	69.5
Latvia	27	11.7	1,588	690.3
Lithuania	79	23.1	1,715	502.3
Luxembourg	157	343.3	505	1,104.3
Malta	27	66.8	138	341.6
Netherlands	429	26.3	4,407	270.0
Poland	732	19.2	21,290	557.9
Portugal	188	17.8	5,017	474.9
Romania	43	2.0	4,641	214.6
Singapore	163	37.5	484	111.5
Slovakia	26	4.8	2,710	503.1
Slovenia	35	17.5	702	350.9
Spain	349	8.0	42,002	967.8
Sweden	125	13.8	2,666	295.2
Switzerland	339	45.2	5,262	701.4
UK	393	6.5	28,437	472.3
USA	17,882	60.3	110,434	372.3
<b>Russia</b>	<b>1,254<sup>3</sup></b>	<b>8.7</b>	<b>33,847<sup>4</sup></b>	<b>235.9</b>
<b>Russia, 2007</b>	<b>1,137<sup>3</sup></b>	<b>8.0</b>	<b>39,945<sup>4</sup></b>	<b>281.3</b>

<sup>1</sup> Including all the institutions offering payment services to non-banks (i.e., the central bank, head offices of credit institutions and other institutions).

<sup>2</sup> Including all the divisions providing access to payment services.

<sup>3</sup> Including the Bank of Russia and head offices of credit institutions.

<sup>4</sup> Including Bank of Russia branches, branches and additional offices of credit institutions and their branches and other internal divisions of credit institutions and their branches.

**Payment transactions by non-banks  
in 2005<sup>1</sup>**

	Total volume of transactions, million	Increase in the volume of transactions (%)	Volume per inhabitant	Total value, billion US dollars <sup>2</sup>	Increase in the real value of transactions (%) <sup>3</sup>	Average value per transaction, US dollars <sup>2</sup>	Average value per inhabitant, thousand US dollars <sup>2</sup>
Austria	1,893	7.1	230	3,851.0	9.2	2,034.0	468.0
Belarus	44	10.5	4	0.2	24.9	3.5	0.0
Belgium	1,893	5.3	181	23,746.0	15.0	12,543.0	2,267.0
Bulgaria	61	42.6	8	90.0	16.5	1,475.0	12.0
Canada	7,856	7.0	243	8,274.0	7.1	1,053.0	256.0
Cyprus	64	10.3	84	198.0	5.8	3,096.0	261.0
Denmark	1,117	2.7	206	850.0	11.4	761.0	157.0
Estonia	166	23.4	123	115.0	28.1	691.0	85.0
Finland	1,370	12.1	261	5,163.0	7.6	3,769.0	984.0
France	14,280	1.5	228	21,463.0	nap <sup>4</sup>	1,503.0	342.0
Germany	15,893	8.8	193	43,705.0	5.9	2,750.0	530.0
Greece	142	14.5	13	1,627.0	3.2	11,458.0	147.0
Hungary	649	114.9	64	1,117.0	-2.2	1,721.0	111.0
Ireland	566	80.8	136	1,352.0	240.7	2,388.0	326.0
Italy	3,517	2.7	60	9,816.0	2.6	2,791.0	169.0
Japan	6,478	42.3	51	26,395.0	1.8	4,075.0	207.0
Kazakhstan	41	50.0	3	345.7	30.2	8,432.0	23.0
Latvia	133	23.7	58	483.0	-7.6	3,628.0	210.0
Lithuania	109	25.3	32	391.0	47.3	3,589.0	115.0
Luxembourg	60	6.0	131	72.0	5.5	1,198.0	157.0
Malta	22	3.6	54	34.0	28.8	1,537.0	84.0
Netherlands	3,802	1.7	233	6,753.0	15.9	1,776.0	414.0
Poland	1,080	15.4	28	655.0	2.1	607.0	17.0
Portugal	1,235	7.4	117	2,044.0	34.8	1,655.0	390.0
Romania	566	8.6	26	761.0	46.0	1,344.0	35.0
Singapore	1,921	2.4	442	7,921.0	25.9	4,123.0	1,824.0
Slovakia	201	16.9	37	1,511.0	364.4	7,519.0	280.0
Slovenia	296	3.2	147	268.0	-2.8	904.0	133.0
Spain	4,649	4.1	107	12,730.0	7.1	2,738.0	293.0
Sweden	1,734	9.1	192	1,147.0	11.0	661.0	127.0
Switzerland	1,070	4.8	143	33,868.0	-3.7	31,640.0	4,514.0
UK	13,934	5.7	231	151,386.0	3.0	10,865.0	2,514.0
USA	88,815	5.1	299	68,919.0	0.6	776.0	232.0
<b>Russia</b>	<b>1,044<sup>5</sup></b>	<b>5.6</b>	<b>7</b>	<b>9,989.4<sup>5</sup></b>	<b>4.6</b>	<b>9,568.4</b>	<b>69.6</b>
<b>Russia, 2007</b>	<b>2,272<sup>5</sup></b>	<b>39.3</b>	<b>16</b>	<b>20,348.3<sup>5</sup></b>	<b>30.8</b>	<b>8,956.1</b>	<b>143.3</b>

<sup>1</sup> Transactions with payment instruments (including other payment instruments not included in the categories listed in Tables 6–12).

<sup>2</sup> Converted at yearly average exchange rates.

<sup>3</sup> Total value of transactions in the national currency adjusted by yearly average CPI inflation.

<sup>4</sup> Not applicable due to change in the methodology for calculating this indicator in 2005.

<sup>5</sup> Including credit transfers, direct debits, cheques and bank card transactions.

**Use of payment instruments by non-banks:  
volume of transactions per payment instrument, in 2005 (million)**

	Credit transfers	Direct debits	Cheques	Card payments				E-money payment transactions
				total	of which			
					by cards with a debit function	by cards with a delayed debit function	by cards with a credit function	
Austria	933.0	668.0	6.0	263.1	207.7	nav	nav	22.1
Belarus	43.8	nav	nav	nav	nav	nav	nav	nav
Belgium	817.7	219.0	15.7	738.5	659.5	79.1	nav	102.0
Bulgaria	44.7	1.1	nav	14.7	12.6	nav	2.1	nav
Canada <sup>1</sup>	857.7	626.0	1,353.5	5,019.3	3,071.3	nav	1,948.0	nav
Cyprus	9.5	9.5	25.4	19.6	8.0	0.2	11.3	0.0
Czech Republic	nav	nav	0.5	79.3	73.6	0.2	5.8	44.3
Denmark	254.6	168.1	25.8	665.2	620.6	nav	44.6	3.7
Estonia	71.3	12.4	0.0	81.9	74.0	0.0	7.9	nav
Finland <sup>2</sup>	623.0	72.0	0.7	674.0	598.0	76.0	nav	0.4
France <sup>3</sup>	2,408.4	2,512.8	3,916.3	5,243.8	nav	nav	nav	17.0
Germany <sup>2</sup>	6,713.1	6,662.1	107.5	2,372.1	1,982.3	389.8	nav	37.8
Greece	29.1	16.6	27.8	67.2	4.9	1.5	60.7	0.0
Hungary	502.5	59.8	0.0	85.5	75.9	0.3	9.4	nav
Ireland	161.9	96.2	132.1	175.7	80.0	nav	95.7	nav
Italy <sup>4</sup>	1,048.3	463.2	465.6	1,196.3	723.8	nav	463.5	20.4
Japan <sup>4</sup>	1,354.1	nav	146.5	4,977.1	11.8	nav	4,965.4	nav
Kazakhstan	30.9	4.2	0.2	5.4	nav	nav	nav	nav
Latvia <sup>2</sup>	89.8	1.4	0.0	41.7	38.9	2.8	nav	nav
Lithuania	52.9	3.5	0.0	51.5	49.6	nav	2.0	1.0
Luxembourg	13.6	5.8	0.1	37.3	22.7	nav	14.6	3.2
Malta	3.8	0.6	12.2	5.3	3.5	nav	1.9	nav
Netherlands <sup>2</sup>	1,224.8	1023.9	nav	1,406.4	1,333.6	72.8	nav	146.9
Poland	804.6	11.1	0.0	264.2	187.1	9.6	67.5	nav
Portugal <sup>3</sup>	112.6	149.0	209.7	761.5	nav	nav	nav	nav
Romania	323.3	158.6	11.3	72.3	68.5	0.0	3.8	nav
Singapore	24.0	51.0	85.7	138.8	138.8	nav	nav	1,621.6
Slovakia	127.1	36.8	0.1	37.5	34.0	0.2	3.3	nav
Slovenia	162.3	35.4	1.4	96.6	49.9	44.2	2.4	nav
Spain <sup>2</sup>	717.5	2,181.6	198.8	1,418.0	743.4	674.6	nav	1.0
Sweden	511.0	160.0	1.0	1,062.0	878.0	54.0	130.0	nav
Switzerland <sup>4</sup>	613.2	52.2	1.8	384.0	276.6	nav	107.4	19.2
UK	2,997.7	2,722.2	1,931.0	6,283.0	4,206.0	265.0	1,812.0	nav
USA	5,513.1	7,282.8	33,070.0	42,948.7	22,203.3	nav	20,745.4	0.0
<b>Russia</b>	<b>881.4<sup>5</sup></b>	<b>13.5<sup>6</sup></b>	<b>0.6</b>	<b>148.6<sup>7</sup></b>	<b>138.5</b>	<b>nav<sup>8</sup></b>	<b>5.5</b>	<b>nav</b>
<b>Russia, 2007</b>	<b>1,835.9<sup>5</sup></b>	<b>80.5<sup>6</sup></b>	<b>0.2</b>	<b>355.0<sup>7</sup></b>	<b>335.2</b>	<b>nav<sup>8</sup></b>	<b>18.0</b>	<b>nav</b>

<sup>1</sup> Cards with a credit function include cards with a deferred payment.

<sup>2</sup> Cards with a delayed debit function include cards with a credit function.

<sup>3</sup> Breakdown by function is not available.

<sup>4</sup> Cards with a credit function include cards with a delayed debit function.

<sup>5</sup> Including payment orders, letters of credit and individuals' documents (this indicator was introduced in 2006 Q3).

<sup>6</sup> Including payment requests and collection orders.

<sup>7</sup> Including all cards (i.e. cards with a debit function, cards with a credit function and prepaid cards).

<sup>8</sup> Cards with a debit function include cards with a delayed debit function.

**Relative importance of payment instruments:  
in volume of transactions, in 2005 (% of total volume of transactions)<sup>1</sup>**

	Credit transfers	Direct debits	Cheques	Card payments				E-money payment transactions
				total	of which			
					by cards with a debit function	by cards with a delayed debit function	by cards with a credit function	
Austria	49.3	35.3	0.3	13.9	11.0	nav	nav	1.2
Belgium	43.2	11.6	0.8	39.0	34.8	4.2	nav	5.4
Bulgaria	73.9	1.8	nav	24.3	20.8	nav	3.5	nav
Canada	10.9	8.0	17.2	63.9	39.1	nap	24.8	nav
Cyprus	14.8	14.8	39.7	30.6	12.5	0.3	17.7	0.0
Denmark	22.8	15.0	2.3	59.5	55.5	nav	4.0	0.3
Estonia	43.1	7.5	0.0	49.5	44.7	0.0	4.8	nav
Finland	45.5	5.3	0.1	49.2	43.6	5.5	nav	0.0
France	17.1	17.8	27.8	37.2	nav	nav	nav	0.1
Germany	42.2	41.9	0.7	14.9	12.5	2.5	nav	0.2
Greece	20.5	11.7	19.6	47.3	3.4	1.1	42.7	0.0
Hungary	77.5	9.2	0.0	13.2	11.7	0.1	1.4	nav
Ireland	28.6	17.0	23.3	31.0	14.1	nav	16.9	nav
Italy	32.8	14.5	14.6	37.5	22.9	nav	14.5	0.6
Japan	20.9	nav	2.3	76.8	0.2	nap	76.7	nav
Kazakhstan	75.9	10.3	0.5	13.3	nav	nav	nav	nav
Latvia	67.6	1.1	0.0	31.4	29.3	2.1	nav	nav
Lithuania	48.6	3.2	0.0	47.3	45.5	nav	1.8	0.9
Luxembourg	22.7	9.7	0.2	62.2	37.8	nav	24.3	5.3
Malta	17.4	2.7	55.7	24.2	16.0	nav	8.7	nav
Netherlands	32.2	26.9	nap	37.0	35.1	1.9	nav	3.9
Poland	74.5	1.0	0.0	24.5	17.3	0.9	6.3	nav
Portugal	9.1	12.1	17.0	61.7	nav	nav	nav	nav
Romania	57.2	28.0	2.0	12.8	12.1	0.0	0.7	nav
Singapore	1.3	2.7	4.5	7.2	7.2	nav	nav	84.4
Slovakia	63.1	18.3	0.1	3.7	16.9	0.1	1.6	nav
Slovenia	54.9	12.0	0.5	32.7	16.9	14.9	0.8	nav
Spain	15.4	46.9	4.3	30.5	16.0	14.5	nav	0.0
Sweden	29.5	9.2	0.1	61.2	50.6	3.1	7.5	nap
Switzerland	57.3	4.9	0.2	35.9	25.8	nav	10.0	1.8
UK	21.5	19.5	13.9	45.1	30.2	1.9	13.0	nav
USA	6.2	8.2	37.2	48.4	25.0	nav	23.4	0.0
<b>Russia</b>	<b>84.4</b>	<b>1.3</b>	<b>0.1</b>	<b>14.2</b>	<b>13.3</b>	<b>nav</b>	<b>0.5</b>	<b>nav</b>
<b>Russia, 2007</b>	<b>80.8</b>	<b>3.5</b>	<b>0.0</b>	<b>15.6</b>	<b>14.8</b>	<b>nav</b>	<b>0.8</b>	<b>nav</b>

<sup>1</sup> See footnotes 1—8 to Table 4.



**Use of payment instruments by non-banks:  
increase in the volume of transactions (2005, % change on previous year)<sup>1</sup>**

	Credit transfers	Direct debits	Cheques	Card payments				E-money payment transactions
				total	of which			
					by cards with a debit function	by cards with a delayed debit function	by cards with a credit function	
Austria	4.6	8.5	1.7	12.9	14.5	nav	nav	14.1
Belarus	10.5	nav	nav	nav	nav	nav	nav	nav
Belgium	3.7	3.6	-18.0	10.0	10.4	6.8	nav	-4.6
Bulgaria	26.7	11.1	nav	139.7	136.7	nav	158.8	nav
Canada	7.7	6.1	-1.7	9.6	8.9	nav	10.6	nav
Cyprus	28.7	8.4	2.3	15.0	21.3	nav	9.4	nav
Czech Republic	nav	nav	24.7	-6.5	-8.0	-69.4	27.5	307.7
Denmark	3.8	6.4	-14.0	2.6	1.5	nav	21.3	-43.0
Estonia	11.4	20.3	-14.3	36.1	39.1	nav	12.9	nav
Finland	8.7	4.3	16.7	16.4	18.2	4.1	nav	-42.5
France	-7.3	-1.2	-5.3	12.8	nav	nav	nav	6.4
Germany	8.8	10.0	-3.1	6.1	6.1	6.1	nav	-1.4
Greece	71.1	26.9	-1.2	4.0	69.8	-17.4	1.4	nav
Hungary	184.1	8.6	nav	23.0	21.5	47.1	36.9	nav
Italy	0.0	2.2	-4.4	8.2	9.1	nav	6.9	nav
Japan	1.8	nav	-8.0	62.6	7.4	nav	62.8	nav
Kazakhstan	17.5	2,000.0	0.0	157.1	nav	nav	nav	nav
Latvia	16.4	68.3	-29.4	41.2	37.9	110.4	nav	nav
Lithuania	14.1	23.4	-50.0	41.1	39.3	nav	105.2	-12.5
Luxembourg	4.2	8.9	-28.2	7.3	10.0	nav	3.4	-4.2
Malta	15.6	25.0	-6.1	21.0	19.2	nav	25.0	nav
Netherlands	-3.1	-2.6	nav	8.5	6.9	50.1	nav	15.4
Poland	10.7	47.1	-90.0	31.2	27.1	6.1	49.5	nav
Portugal	48.2	3.0	-9.1	9.9	nav	nav	nav	nav
Romania	3.0	12.1	5.1	32.1	29.1	33.3	144.2	nav
Singapore	10.1	7.3	-1.2	14.2	14.2	nav	nav	1.5
Slovakia	-9.0	1,199.3	72.5	26.9	27.0	-4.0	29.4	nav
Slovenia	2.0	0.0	-22.3	7.0	11.5	1.9	17.9	nav
Spain	-1.9	3.0	-7.3	11.6	7.3	16.7	nav	-13.0
Sweden	10.6	11.9	0.0	7.9	8.7	-16.9	17.1	nav
Switzerland	4.7	1.4	-33.3	6.0	6.6	nav	4.7	1.1
UK	15.0	5.1	-7.6	6.5	10.9	11.3	-3.1	nav
USA	8.2	25.6	-5.1	10.7	12.8	nav	8.5	nav
<b>Russia</b>	<b>1.1</b>	<b>-31.1</b>	<b>-16.8</b>	<b>54.1</b>	<b>50.4</b>	<b>nav</b>	<b>85.6</b>	<b>nav</b>
<b>Russia, 2007</b>	<b>35.2</b>	<b>85.5</b>	<b>-66.7</b>	<b>54.9</b>	<b>55.5</b>	<b>nav</b>	<b>91.7</b>	<b>nav</b>

<sup>1</sup> See footnotes 1—8 to Table 4.

**Use of payment instruments by non-banks:  
value of transactions per payment instrument, in 2005 (billion US dollars) <sup>1, 2</sup>**

	Credit transfers	Direct debits	Cheques	Card payments				E-money payment transactions
				total	of which			
					by cards with a debit function	by cards with a delayed debit function	by cards with a credit function	
Austria	3,494.5	318.2	1.0	20.1	13.0	nav	nav	0.2
Belarus	0.2	nav	nav	nav	nav	nav	nav	nav
Belgium	23,541.8	63.3	85.5	51.5	41.0	10.4	nav	0.6
Bulgaria	88.5	0.5	nav	1.0	0.9	nav	0.1	nav
Canada	4,587.6	353.5	3,046.5	286.5	113.5	nav	173.0	nav
Cyprus	147.5	2.6	50.0	2.0	0.9	0.0	1.2	0.0
Czech Republic	nav	nav	2.3	3.7	3.4	0.0	0.3	0.0
Denmark	638.0	81.8	85.3	44.6	39.6	nav	5.1	0.0
Estonia	112.5	0.6	0.0	1.6	1.3	0.0	0.3	nav
Finland	5,046.1	49.6	37.3	30.2	24.6	5.6	nav	0.0
France	16,721.3	1,126.2	2,702.4	323.2	nav	nav	nav	0.1
Germany	38,679.6	4,187.4	641.5	196.8	150.5	46.3	nav	0.1
Greece	1,140.6	7.5	467.9	9.1	0.8	0.4	7.9	0.0
Hungary	1,101.2	1.9	0.0	3.7	3.2	0.1	0.5	nav
Ireland	211.8	69.2	1,051.0	19.7	6.5	nav	13.3	nav
Italy	7,024.5	359.1	1,441.7	136.8	78.9	nav	57.9	2.0
Japan	21,431.0	nav	4,802.3	299.2	7.3	nav	292.0	nav
Kazakhstan	340.8	2.7	1.7	0.5	nav	nav	nav	nav
Latvia	481.2	0.1	0.0	1.2	1.0	0.3	nav	nav
Lithuania	387.8	1.8	0.0	1.6	1.4	nav	0.2	0.1
Luxembourg	62.8	2.5	2.9	3.7	1.8	nav	1.8	0.0
Malta	17.1	0.1	16.2	0.4	0.2	nav	0.2	nav
Netherlands	6,388.8	279.8	nav	83.7	73.9	9.8	nav	0.5
Poland	642.4	2.6	0.1	10.1	6.5	0.5	3.1	nav
Portugal	1,513.7	30.0	449.6	33.3	nav	nav	nav	nav
Romania	696.5	42.4	10.8	10.6	10.5	0.0	0.2	nav
Singapore	7,620.9	23.8	268.5	16.6	7.0	nav	9.7	0.9
Slovakia	1,019.4	490.3	0.2	1.6	1.4	0.0	0.2	nav
Slovenia	261.4	2.3	0.1	3.8	1.9	1.8	0.1	nav
Spain	9,577.9	1,333.5	1,185.4	94.4	41.6	52.8	nav	0.0
Sweden	1,042.8	46.0	4.0	54.0	43.3	7.3	3.4	nav
Switzerland	33,746.9	64.6	3.1	52.8	35.9	nav	16.9	0.1
UK	146,300.1	1,448.1	3,056.2	572.6	325.1	48.0	199.5	nav
USA	15,628.0	12,917.0	37,729.0	10.7	12.8	nav	8.5	0.0
<b>Russia</b>	<b>9,938.6</b>	<b>38.3</b>	<b>0.9</b>	<b>11.6</b>	<b>10.5</b>	<b>nav</b>	<b>1.0</b>	<b>nav</b>
<b>Russia, 2007</b>	<b>20,061.1</b>	<b>259.2</b>	<b>2.3</b>	<b>25.7</b>	<b>23.5</b>	<b>nav</b>	<b>2.2</b>	<b>nav</b>

<sup>1</sup> Converted at yearly average exchange rates.

<sup>2</sup> See footnotes 1—8 to Table 4.

**Relative importance of payment instruments:  
in value of transactions, in 2005 (% of total value of transactions)<sup>1</sup>**

	Credit transfers	Direct debits	Cheques	Card payments				E-money payment transactions
				total	of which			
					by cards with a debit function	by cards with a delayed debit function	by cards with a credit function	
Austria	90.8	8.3	0.4	0.5	0.3	nav	nav	0.0
Belgium	99.2	0.3	0.4	0.2	0.2	0.0	nav	0.0
Bulgaria	98.3	0.5	nav	1.2	1.0	nav	0.2	nav
Canada	55.4	4.3	36.8	3.5	1.4	nap	2.1	nav
Cyprus	74.4	1.3	23.2	1.0	0.4	0.0	0.6	nav
Denmark	75.1	9.6	10.0	5.3	4.7	nav	0.6	0.0
Estonia	98.1	0.5	0.0	1.4	1.2	0.0	0.3	nav
Finland	97.7	1.0	0.7	0.6	0.5	0.1	nav	0.0
France	80.1	5.4	12.9	1.5	nav	nav	nav	0.0
Germany	88.5	9.6	1.5	0.4	0.3	0.1	nav	0.0
Greece	70.1	0.5	28.8	0.6	0.1	0.0	0.5	nav
Hungary	98.6	0.2	0.0	0.3	0.3	0.0	0.0	nav
Ireland	15.7	5.1	77.7	1.5	0.5	nav	1.0	nav
Italy	78.4	4.0	16.1	1.5	0.9	nav	0.6	0.0
Japan	80.8	nav	18.1	1.1	0.0	nap	1.1	nav
Kazakhstan	98.6	0.8	0.5	0.1	nav	nav	nav	nav
Latvia	99.7	0.0	0.0	0.3	0.2	0.1	nav	nav
Lithuania	99.1	0.5	0.0	0.4	0.4	nav	0.0	0.0
Luxembourg	87.4	3.4	4.1	5.1	2.6	nav	2.5	0.0
Malta	50.5	0.4	47.8	1.2	0.6	nav	0.6	nav
Netherlands	94.6	4.1	nap	1.2	1.1	0.1	nav	0.0
Poland	98.1	0.4	0.0	1.5	1.0	0.1	0.5	nav
Portugal	74.1	1.5	22.0	1.6	nav	nav	nav	nav
Romania	91.6	5.6	1.4	1.4	1.4	0.0	0.0	nav
Singapore	96.1	0.3	3.4	0.2	0.1	nav	0.1	0.0
Slovakia	67.4	32.4	0.0	0.1	0.1	0.0	0.0	nav
Slovenia	97.7	0.9	0.1	1.4	0.7	0.7	0.0	nav
Spain	75.2	10.5	9.3	0.7	0.3	0.4	nav	0.0
Sweden	90.9	4.0	0.3	4.7	3.8	0.6	0.3	nap
Switzerland	99.6	0.2	0.0	0.2	0.1	nav	0.1	0.0
UK	96.6	1.0	2.0	0.4	0.2	0.0	0.1	nav
USA	22.7	18.7	54.7	3.8	1.3	nav	2.6	0.0
<b>Russia</b>	<b>99.5</b>	<b>0.4</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>nav</b>	<b>0.0</b>	<b>nav</b>
<b>Russia, 2007</b>	<b>98.6</b>	<b>1.3</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>nav</b>	<b>0.0</b>	<b>nav</b>

<sup>1</sup> See footnotes 1—8 to Table 4.

**Use of payment instruments by non-banks:  
increase in the real value of transactions (2005, % change on previous year)<sup>1, 2</sup>**

	Credit transfers	Direct debits	Cheques	Card payments				E-money payment transactions
				total	of which			
					by cards with a debit function	by cards with a delayed debit function	by cards with a credit function	
Austria	8.2	25	-20.1	10	12.6	nav	nav	5.5
Belarus	24.9	nav	nav	nav	nav	nav	nav	nav
Belgium	15.2	3.4	-17.2	10.2	7.8	20.5	nav	-9.8
Bulgaria	16	15.2	nav	87.8	106.7	nav	18.2	nav
Canada	9.5	8.1	3.1	11.1	8.1	nav	13.1	nav
Cyprus	6.6	15.4	3.3	-5.2	-1.4	nav	-10.2	nav
Czech Republic	nav	nav	86.5	-7.1	-7.8	-41.9	5.6	286.3
Denmark	14.6	6.4	-3.6	10.2	10.1	nav	10.9	-41
Estonia	27.9	57.3	-3.2	35	40.0	nav	16	nav
Finland	8.2	11	-40.5	10.6	12.3	3.9	nav	nav
France	nav	13.7	2.4	16.3	nav	nav	nav	-20.5
Germany	7.2	-3	-9.6	3.4	2.4	6.8	nav	10.4
Greece	3.6	-2.1	1.6	18.4	151.2	-6.4	13.7	nav
Hungary	-1.7	13.4	nav	21	18.8	52.6	34.3	nav
Italy	4.1	3.1	-4.3	7.7	7.1	nav	8.5	174.4
Japan	5.3	nav	-12.1	10.7	13.3	nav	10.7	nav
Kazakhstan	29.3	6,900.0	4.3	163.3	nav	nav	nav	nav
Latvia	-7.7	44.5	-4	39.6	28.8	108	nav	nav
Lithuania	47.3	49.1	19.8	45.5	41.9	nav	92.7	39.4
Luxembourg	6.3	13.5	-11.1	3	6.4	nav	-0.2	nav
Malta	153	27.6	-15.1	17.3	15.4	nav	19.4	nav
Netherlands	16.8	1.3	nav	7.1	3.4	47.4	nav	12
Poland	1.8	24.1	-74.8	21.3	17.9	-3.6	35.4	nav
Portugal	52.7	-2	-1.9	13.2	nav	nav	nav	nav
Romania	47.4	14.3	13.5	474.5	549.2	37.7	-34.4	nav
Singapore	27	7.8	6	18.3	25.0	nav	13.8	6.1
Slovakia	215.8	36,207.2	90.7	27.8	25.0	8.6	53.7	nav
Slovenia	-3.1	18.8	-17.7	7.1	12.4	1.7	10.4	nav
Spain	5.7	34.7	1.4	11.5	6.0	16.2	nav	-13
Sweden	12.1	13	-50	0.1	1.5	-6.9	-1.8	nav
Switzerland	-3.8	0.9	-51.2	13.9	18.4	nav	5.3	-1.2
UK	3.2	4.1	-7.3	5.6	11.5	2.3	-2.1	nav
USA	8.7	5.6	-4.5	10.1	15.8	nav	7.5	nav
<b>Russia</b>	<b>5.1</b>	<b>-55.5</b>	<b>-18.8</b>	<b>8.7</b>	<b>4.9</b>	<b>nav</b>	<b>65.7</b>	<b>nav</b>
<b>Russia, 2007</b>	<b>30.1</b>	<b>124.1</b>	<b>-41.2</b>	<b>46.6</b>	<b>52.9</b>	<b>nav</b>	<b>11.5</b>	<b>nav</b>

<sup>1</sup> Increase in the value of transactions in national currency adjusted by yearly average CPI inflation.

<sup>2</sup> See footnotes 1—8 to Table 4.

**Use of payment instruments by non-banks:  
average value per transaction, in 2005 (US dollars) <sup>1, 2</sup>**

	Credit transfers	Direct debits	Cheques	Card payments				E-money payment transactions
				total	of which			
					by cards with a debit function	by cards with a delayed debit function	by cards with a credit function	
Austria	3,746.0	476.0	165.0	76.4	62.5	nav	nav	8.1
Belarus	3.5	nav	nav	nav	nav	nav	nav	nav
Belgium	28,792.0	289.0	5,449.0	69.7	62.2	132.0	nav	6.0
Bulgaria	1,980.0	418.0	nav	70.7	71.4	nav	66.7	nav
Canada	5,349.0	565.0	2,251.0	57.1	37.0	nav	88.8	nav
Cyprus	15,525.0	274.0	1,967.0	104.1	106.3	150.0	102.7	nav
Czech Republic	nav	nav	4,600.0	46.3	45.8	50.0	50.0	0.2
Denmark	2,506.0	486.0	3,305.0	67.1	63.8	nav	113.5	1.6
Estonia	1,577.0	45.0	1,000.0	19.9	18.1	nav	36.7	nav
Finland	8,100.0	688.0	53,229.0	44.8	41.1	73.6	nav	2.0
France	6,943.0	448.0	690.0	61.6	nav	nav	nav	3.1
Germany	5,762.0	628.0	5,963.0	82.7	75.8	117.9	nav	3.0
Greece	39,196.0	289.0	16,832.0	135.9	165.3	260.0	130.8	nav
Hungary	219.0	31.0	nav	43.4	41.8	166.7	51.1	nav
Ireland	1,308.0	720.0	7,956.0	112.2	80.8	nav	138.7	nav
Italy	6,701.0	775.0	3,097.0	114.4	107.7	nav	124.9	98.7
Japan	15,827.0	nav	32,788.0	60.1	618.3	nav	58.8	nav
Kazakhstan	11,028.0	648.0	8,700.0	96.3	nav	nav	nav	nav
Latvia	5,358.0	64.0	750.0	29.0	24.7	89.3	nav	nav
Lithuania	7,331.0	511.0	nav	30.5	28.6	nav	75.0	68.6
Luxembourg	4,617.0	428.0	29,400.0	98.1	81.1	nav	125.3	3.1
Malta	4,500.0	217.0	1,326.0	77.4	60.0	nav	105.3	nav
Netherlands	5,216.0	273.0	nav	59.5	55.4	134.1	nav	3.4
Poland	798.0	237.0	1,500.0	38.1	34.7	53.1	45.3	nav
Portugal	13,444.0	201.0	2,144.0	43.7	nav	nav	nav	nav
Romania	2,154.0	267.0	952.0	146.7	152.6	250.0	39.5	nav
Singapore	316,904.0	467.0	3,133.0	119.8	50.2	nav	nav	0.5
Slovakia	8,020.0	13,323.0	1,600.0	41.9	39.7	100.0	60.6	nav
Slovenia	1,611.0	66.0	100.0	39.3	38.5	40.0	50.0	nav
Spain	13,349.0	611.0	5,963.0	66.6	56.0	78.3	nav	2.4
Sweden	2,041.0	288.0	4,001.0	50.8	49.3	134.8	26.5	nav
Switzerland	55,034.0	1,238.0	1,739.0	137.5	129.7	nav	157.7	2.9
UK	48,807.0	532.0	1,583.0	91.1	77.3	181.2	110.1	nav
USA	2,835.0	1,774.0	1,141.0	61.6	39.1	nav	85.7	0.0
<b>Russia</b>	<b>11,084.0</b>	<b>2,793.0</b>	<b>1,500.0</b>	<b>77.9</b>	<b>76.0</b>	<b>nav</b>	<b>181.8</b>	<b>nav</b>
<b>Russia, 2007</b>	<b>10,927.1</b>	<b>3,220.0</b>	<b>11,250.0</b>	<b>72.4</b>	<b>70.0</b>	<b>nav</b>	<b>122.2</b>	<b>nav</b>

<sup>1</sup> Converted at yearly average exchange rates.

<sup>2</sup> See footnotes 1—8 to Table 4.

**Cards issued in the country  
(as of end of 2005, thousand)**

	Cards with a cash function	Cards with an e-money function	Cards with a payment function	of which		
				cards with a debit function	cards with a delayed debit function	cards with a credit function
Austria	8,859	7,154	8,859	6,700	nav	nav
Belarus	nav	nav	3,190	nav	nav	nav
Belgium	15,931	9,617	15,931	12,672	3,259	nav
Bulgaria	4,682	nav	4,682	4,428	nav	254
Canada	nav	nav	nav	nav	nap	60,232
Cyprus	747	0	750	380	7	363
Czech Republic	5,706	334	7,433	6,556	5	872
Denmark	4,839	nav	4,839	3,882	nav	957
Estonia	1,420	nav	1,408	1,143	0	266
Finland	6,212	1,482	7,794	4,744	3,050	nav
France	81,912	22,340	78,832	38,911	10,839	31,159
Germany	113,311	64,575	112,718	91,577	21,141	nav
Greece	8,168	nav	12,032	5,917	70	6,046
Hungary	7,381	nav	7,378	6,336	18	1,028
Ireland	4,396	nav	3,427	1,273	nav	2,154
Italy	35,059	3,275	60,676	31,784	nav	28,892
Japan	449,810	nav	nav	390,000	nav	nav
Kazakhstan	3,215	nav	3,215	nav	nav	nav
Latvia	1,732	nav	1,705	1,576	129	nav
Lithuania	3,082	133	2,949	2,803	nav	147
Luxembourg	768	458	768	403	nav	366
Malta	467	nav	465	345	nav	121
Netherlands	31,754	17748	31,754	26,552	5,202	nav
Poland	19,325	nav	20,370	15,369	618	4,384
Portugal	16,350	nav	19,876	16,350	nav	6,080
Romania	7,254	nav	7,268	6,614	1	722
Singapore	7,481	11,114	11,923	7,481	nav	4,442
Slovakia	3,866	nav	3,851	3,111	8	732
Slovenia	2,859	nav	3,020	2,330	600	89
Spain	66,236	6,815	65,081	31,835	33,247	nav
Sweden	8,725	nap	11,432	6,825	983	3,624
Switzerland	9,742	4,376	9,787	6,333	nav	3,454
UK	164,440	69,858	141,572	66,990	4,724	69,858
USA	965,330	nap	1,543,910	269,000	nav	1,274,910
<b>Russia</b>	<b>54,665<sup>1, 2</sup></b>	<b>nav</b>	<b>54,665</b>	<b>52,130</b>	<b>nav<sup>3</sup></b>	<b>2,479</b>
<b>Russia, 2007</b>	<b>103,497<sup>1, 2</sup></b>	<b>nav</b>	<b>103,497</b>	<b>94,097</b>	<b>nav<sup>3</sup></b>	<b>8,944</b>

<sup>1</sup> All cards have a cash function.

<sup>2</sup> Including all cards (i.e. cards with a debit function, cards with a credit function, cards with a delayed debit function and prepaid cards).

<sup>3</sup> The Bank of Russia regulations attribute cards with a delayed debit function to cards with a debit function.

**Increase in the number of cards issued in the country  
(2005, % change on previous year)**

	Cards with a cash function	Cards with an e-money function	Cards with a payment function	of which		
				cards with a debit function	cards with a delayed debit function	cards with a credit function
Austria	1.2	1.7	1.2	1.2	nav	nav
Belarus	nav	nav	45.2	nav	nav	nav
Belgium	1.3	7.1	1.3	1.0	2.6	nav
Bulgaria	32.1	nav	32.1	29.2	nav	119.2
Canada	nav	nav	nav	nav	nap	6.5
Cyprus	7.8	nav	7.2	8.3	nap	4.0
Czech Republic	-15.1	229.2	13.0	6.2	38.1	116.8
Denmark	10.0	nav	10.0	7.5	nav	21.2
Estonia	8.9	nav	8.9	7.7	0.0	14.2
Finland	-1.2	9.5	8.5	6.0	12.7	nav
Germany	-1.3	1.9	3.5	3.5	3.5	nav
Greece	6.7	nav	8.8	10.8	-9.1	7.2
Hungary	13.4	nav	12.7	5.1	6.7	102.8
Ireland	6.6	nav	4.0	-1.5	nav	7.6
Italy	9.7	128.7	5.5	4.2	nav	6.9
Japan	1.0	nav	nav	0.0	nav	nav
Kazakhstan	36.3	nav	36.3	nav	nav	nav
Latvia	27.4	nav	29.4	26.0	92.7	nav
Lithuania	14.2	-16.9	16.5	14.2	nav	71.3
Luxembourg	5.5	3.5	5.5	1.9	nav	9.8
Malta	10.2	nav	10.1	9.8	nav	11.1
Netherlands	-5.5	-1.4	-5.5	-4.5	-10.3	nav
Poland	16.2	nav	14.8	7.6	-2.3	54.5
Portugal	3.7	nav	10.4	3.6	nav	17.4
Romania	25.6	nav	25.7	20.6	49.4	134.3
Singapore	20.7	4.1	17.7	20.7	nav	12.9
Slovakia	8.6	nav	8.1	8.4	1.6	7.0
Slovenia	1.6	nav	1.6	0.9	2.1	10.1
Spain	5.1	-14.6	5.4	-2.8	14.8	nav
Sweden	5.0	nav	11.0	7.8	10.4	17.7
Switzerland	3.5	9.9	4.0	5.2	nav	1.9
UK	-0.1	0.0	1.2	2.2	6.8	0.0
USA	4.0	nav	2.0	0.9	nav	2.3
<b>Russia</b>	<b>55.5</b>	<b>nav</b>	<b>55.5</b>	<b>54.2</b>	<b>nav</b>	<b>87.9</b>
<b>Russia, 2007</b>	<b>38.4</b>	<b>nav</b>	<b>38.4</b>	<b>36.5</b>	<b>nav</b>	<b>58.0</b>



**Number of cards issued in the country per inhabitant  
(as of end of 2005)**

	Cards with a cash function	Cards with an e-money function	Cards with a payment function	of which		
				cards with a debit function	cards with a delayed debit function	cards with a credit function
Austria	1.08	0.87	1.08	0.81	nav	nav
Belarus	nav	nav	0.33	nav	nav	nav
Belgium	1.52	0.92	1.52	1.21	0.31	nav
Bulgaria	0.60	nav	0.60	0.57	nav	0.03
Canada	nav	nav	nav	nav	nav	1.87
Cyprus	0.99	0.00	0.99	0.50	0.01	0.48
Czech Republic	0.56	0.03	0.73	0.64	0.00	0.09
Denmark	0.89	nav	0.89	0.72	nav	0.18
Estonia	1.05	nav	1.04	0.85	0.00	0.20
Finland	1.18	0.28	1.49	0.90	0.58	nav
France	1.31	0.36	1.26	nav	nav	nav
Germany	1.37	0.78	1.37	1.11	0.26	nav
Greece	0.74	nav	1.08	0.53	0.01	0.55
Hungary	0.73	nav	0.73	0.63	0.00	0.10
Ireland	1.06	nav	0.83	0.31	nav	0.52
Italy	0.60	0.06	1.04	0.55	nav	0.50
Japan	3.52	nav	nav	3.05	nav	nav
Kazakhstan	0.21	nav	0.21	nav	nav	nav
Latvia	0.75	nav	0.74	0.69	0.06	nav
Lithuania	0.90	0.04	0.86	0.82	nav	0.04
Luxembourg	1.68	1.00	1.68	0.88	nav	0.80
Malta	1.16	nav	1.15	0.85	nav	0.30
Netherlands	1.95	1.09	1.95	1.63	0.32	nav
Poland	0.51	nav	0.53	0.40	0.02	0.11
Portugal	1.55	nav	1.88	1.55	nav	0.58
Romania	0.34	nav	0.34	0.31	0.00	0.03
Singapore	1.72	2.56	2.75	1.72	nav	1.02
Slovakia	0.72	nav	0.71	0.58	0.00	0.14
Slovenia	1.43	nav	1.51	1.16	0.30	0.04
Spain	1.53	0.16	1.50	0.73	0.77	nav
Sweden	0.97	nav	1.27	0.76	0.11	0.40
Switzerland	1.30	0.58	1.30	0.84	nav	0.46
UK	2.73	1.16	2.35	1.11	0.08	1.16
USA	3.25	nav	5.20	0.91	nav	4.30
<b>Russia</b>	<b>0.38</b>	<b>nav</b>	<b>0.38</b>	<b>0.36</b>	<b>nav</b>	<b>0.02</b>
<b>Russia, 2007</b>	<b>0.73</b>	<b>nav</b>	<b>0.73</b>	<b>0.66</b>	<b>nav</b>	<b>0.06</b>

**Terminals located in the country  
(as of end of 2005)**

	ATMs			POS terminals		
	total number, thousand	increase in the number (% change on previous year)	number per million inhabitants	total number, thousand	increase in the number (% change on previous year)	number per million inhabitants
Austria	8.0	-0.1	969	89.3	3.0	10,853
Belarus	2.8	8.6	282	7.6	16.6	772
Belgium	13.5	2.3	1,289	101.1	-6.6	9,653
Bulgaria	2.8	38.5	359	17.0	123.6	2,194
Canada	52.7	8.6	1,631	571.4	4.6	17,697
Cyprus	0.4	7.0	586	21.3	3.6	28,079
Czech Republic	3.0	9.5	294	62.7	41.1	6,123
Denmark	3.0	2.0	554	101.6	-17.8	18,754
Estonia	0.8	8.0	624	12.7	14.6	9,447
Finland	3.4	-2.5	665	103.0	7.3	19,637
France	47.8	9.4	763	1,095.0	3.3	17,464
Germany	53.4	1.5	647	569.5	9.5	6,906
Greece	6.2	5.0	555	488.1	7.4	44,009
Hungary	3.5	7.1	350	41.1	-5.9	4,079
Ireland	2.9	0.4	710	50.0	0.0	12,052
Italy	40.6	2.2	698	1,045.0	3.7	17,976
Japan	136.3	-0.2	1,067	1,375.3	10.7	10,765
Kazakhstan	1.7	50.5	111	8.5	45.7	588
Latvia	0.9	0.2	381	13.9	17.1	6,023
Lithuania	1.1	4.4	309	16.3	20.3	4,777
Luxembourg	0.4	2.0	886	8.3	6.1	18,181
Malta	0.2	2.0	381	9.1	13.2	22,513
Netherlands	7.5	-4.7	461	206.4	5.9	12,645
Poland	8.8	9.0	230	167.9	17.2	4,400
Portugal	13.8	9.6	1,310	160.2	16.8	15,159
Romania	4.4	32.3	201	28.0	1.6	1,296
Singapore	1.7	5.5	391	59.7	122.9	13,757
Slovakia	1.9	9.1	344	20.2	3.0	3,755
Slovenia	1.5	7.3	745	33.7	-17.3	16,848
Spain	56.3	1.7	1,298	1,109.1	7.8	25,555
Sweden	2.8	3.7	310	176.6	9.6	19,561
Switzerland	5.6	3.2	740	110.2	25.2	14,692
UK	58.3	7.1	968	974.1	5.9	16,178
USA	396.0	3.4	1335	5,032.0	2.7	16,963
<b>Russia</b>	<b>27.7</b>	<b>40.7</b>	<b>193</b>	<b>140.1</b>	<b>38.2</b>	<b>976</b>
<b>Russia, 2007</b>	<b>54.3</b>	<b>38.3</b>	<b>382</b>	<b>239.4</b>	<b>39.6</b>	<b>1,684</b>

### Transactions at terminals in 2005<sup>1</sup>

	Cash withdrawals at ATMs				Payment transactions			
	number of cash withdrawals, million	increase in the number of cash withdrawals (% change on previous year)	value of cash withdrawals, billion US dollars <sup>2</sup>	increase in the real value of cash withdrawals (% change on previous year) <sup>3</sup>	volume of payment transactions, million	increase in the volume of payment transactions (% change on previous year)	value of payment transactions, billion US dollars <sup>2</sup>	increase in the real value of payment transactions (% change on previous year) <sup>3</sup>
Austria	123.0	2.4	19.7	-0.4	nav	nav	nav	nav
Belarus	42.9	-27.0	1.6	-43.1	nav	nav	nav	nav
Belgium	250.5	2.5	34.3	-2.2	693.9	9.8	46.3	8.6
Bulgaria	73.3	27.2	3.5	11.3	7.0	44.4	0.5	16.1
Canada	1,076.9	-3.4	88.4	-2.0	5,019.3	9.6	286.5	11.1
Cyprus	6.4	19.4	0.8	2.3	16.4	11.8	1.4	10.6
Czech Republic	125.2	2.6	17.6	-0.5	79.3	-6.5	3.7	18.0
Denmark	17.5	2.5	3.4	-0.2	608.6	1.2	38.8	8.5
Estonia	49.5	1.5	3.5	8.1	79.8	35.4	1.5	34.6
Finland	209.0	-5.4	21.0	-2.8	674.0	16.4	30.2	10.3
France	1,432.0	13.6	127.3	13.3	5,114.4	10.0	329.3	11.7
Germany	2,445.1	1.9	474.5	9.9	2,409.9	5.9	197.5	3.4
Greece	156.9	3.9	46.2	2.6	65.9	38.4	6.6	31.7
Hungary	113.2	11.5	15.9	8.6	88.2	11.3	9.3	5.8
Ireland	178.0	-3.0	30.1	6.5	175.7	16.4	19.7	14.2
Italy	456.4	0.6	98.2	0.6	732.8	9.1	78.9	7.2
Japan	429.8	4.4	218.1	nav	nav	nav	nav	nav
Kazakhstan	44.4	28.3	5.9	33.9	nav	nav	nav	nav
Latvia	37.9	17.0	3.6	17.8	39.5	33.8	0.8	-6.8
Lithuania	nav	nav	nav	nav	49.4	43.2	1.3	53.4
Luxembourg	4.6	3.0	0.9	1.5	32.5	4.1	2.7	1.1
Malta	9.0	6.0	1.1	0.2	2.9	20.6	0.2	3.3
Netherlands	463.5	-4.2	67.3	4.1	1,480.5	7.7	74.4	2.9
Poland	509.8	14.4	47.5	16.7	258.2	30.7	9.4	25.2
Portugal	379.7	6.1	29.9	7.5	681.2	8.6	25.0	6.1
Romania	125.1	14.3	18.1	246.3	13.5	132.7	0.6	6.6
Singapore	6.4	-2.6	0.6	-2.1	nav	nav	nav	nav
Slovakia	70.2	0.4	6.5	7.6	26.1	12.0	0.9	9.8
Slovenia	65.4	4.2	4.9	7.6	73.1	-3.8	2.7	-4.1
Spain	920.0	1.6	119.1	2.2	1,357.8	11.2	87.7	10.2
Sweden	316.0	-1.3	36.8	-0.9	755.0	19.5	40.0	9.7
Switzerland	103.0	-6.3	19.0	-12.6	336.0	5.8	44.8	15.1
UK	2,699.0	6.8	312.6	4.7	6,008.0	6.5	535.5	6.0
<b>Russia</b>	<b>658.4</b>	<b>43.8</b>	<b>70.9</b>	<b>44.7</b>	<b>106.6</b>	<b>42.8</b>	<b>4.3</b>	<b>45.9</b>
<b>Russia, 2007</b>	<b>1,211.4</b>	<b>33.1</b>	<b>192.6</b>	<b>36.0</b>	<b>189.9</b>	<b>49.4</b>	<b>12.0</b>	<b>47.3</b>

<sup>1</sup> Transactions at terminals located in the country with cards issued in the country.

<sup>2</sup> Converted at yearly average exchange rates.

<sup>3</sup> Increase in the value of transactions in national currency adjusted by yearly average CPI inflation.